# NEG Card Doc

**Codetermination**

**Planks – 1NC**

**The United States federal government should**

* **establish mandatory codetermination for large firms, specifically encompassing wages, hours, working conditions, and other terms and conditions of employment.**
* **ban collective bargaining rights for workers in the United States.**
* **allow employers to waive employment law regulations including antidiscrimination, privacy protection, minimum wages, restrictions on hours.**

### Planks – 2NC

#### ban regulations on artificial intelligence and biotechnology use and development by small businesses.

### S – Codetermination – 2NC

**Codetermination replicates all the benefits of unions without the political and economic costs.**

Anthony **Carini 24**, J.D. Candidate (2025) at Southwestern Law School, Staff Editor of the Southwestern Journal of International Law, 2023-2024, "Codetermination as a Remedy for American Labor Woes, or How I Learned to Stop Worrying and Love the Bomb," Southwestern Journal of International Law, vol. 31, 2024, p. 256, Lexis

For decades, Germany has utilized codetermination in its corporate governance structure to give workers a voice in ways American workers largely don't have.1 By placing employees on corporate boards, many of the current ills plaguing workers, such as inequality and dissatisfaction, can be remedied.2 Adopting Germany's codetermination scheme presents an excellent opportunity for the U.S. to restore worker power without significantly disrupting corporate culture, law, or politics.

It is no secret that economic inequality in the United States has dramatically increased in the past few decades.3 A report from the Economic Policy Institute in 2015 showed that from 1979 to 2013, middle and low-wage [\*258] workers saw a 6% increase and a 5% decrease in wages, respectively.4 Meanwhile, earners in the ninety-fifth percentile saw a 41% increase during that same time period.5 Since its peak in 1970, the inflation-adjusted minimum wage has decreased by about 40%.6 Additionally, from 1979 to 2024, worker productivity growth outpaced hourly pay growth by fifty-one percent.7 According to a Pew Research Center 2013 survey, less than half of American workers feel "very satisfied" with their pay, opportunities for training and promotion, and benefits.8 The brunt of the dissatisfaction in these categories is, unfortunately yet predictably, borne by lower and middle income workers.9

At the same time, since 1983, union membership has been cut in half and is now among the lowest out of the Organization for Economic Cooperation and Development (OECD) countries.10 This downward trend is partly attributable to the natural effects of a globalized, technologically advanced service economy.11 But it can also be traced to specific policies and court decisions, such as Linden Lumber Div., Summer & Co. v. N.L.R.B., the Taft-Hartley Act, "Right to Work" laws, and broad shifts in attitude surrounding corporations' responsibility to shareholders.12 The decreased [\*259] worker bargaining power that follows from weak union membership strongly correlates with and likely has aided, these bleak labor statistics.13

On the flip side, a recent report from the U.S. Department of the Treasury highlighted the many benefits of unionization.14 For example, union workers on average earn about 20% higher wages than non-union workers, which is referred to as "the union wage premium."15 Union workers are also much more likely to be offered medical benefits, retirement, life insurance, and numerous other fringe benefits and amenities from their employer than non-union workers.16

Unfortunately, however, it is unlikely that union membership will ever recover to its mid-century level due to various structural and cultural barriers that have been erected since the Taft-Hartley Act. This means that the U.S. needs to consider other options available to empower workers in the way unions could when they had significant influence over labor relations.

To achieve labor empowerment and reverse the harmful effects that weakened unions have had on American workers, the U.S. needs to implement a federal codetermination scheme similar to that of Germany. Codetermination is the best option for the U.S. because it can restore workers' voices in a way that complements the modern American legal and political climate, it can produce benefits for workers much like unions can, and it brings the U.S. closer to actually upholding freedom of contract and association.

II. A BACKGROUND ON CODETERMINATION AS APPLIED IN GERMANY

Beginning in 1976 with the Codetermination Act, Germany embedded in its legal system a requirement for equal participation in the company decision-making process between shareholders and employees.17 In 1979, [\*260] the German Federal Constitutional Court held that a challenge by numerous companies to the Codetermination Act was unfounded, and stated that, "[The Codetermination Act] also has the task of mitigating the external control associated with the subordination of employees to external management and organizational power in larger companies through institutional participation in business decisions . . . and of supplementing the economic legitimacy of company management with a social one."18

One of the main ideas behind codetermination is pursuing equality between capital and labor through a democratic decision-making process that rewards employee loyalty with participation rights.19 Although many other European countries have adopted some form of codetermination, Germany has the most well-known and enduring form of it.20 This, along with similarities in their corporate law structure, makes codetermination a great fit to use as a model for the U.S.

First, German codetermination is split into two levels one at the "company" level and one at the "workplace" level.21 German labor law defines a "workplace" as "an employer's facility in which several employees normally work together," while a "company" is comprised of all the workplaces for example where an automotive manufacturer is a "company", its factories are the "workplaces."22

At the company level, the Codetermination Act creates a supervisory board composed of employee representatives and shareholders in companies with more than 2,000 employees.23 The amount of representation on the supervisory board depends on the size of the company but is always divided [\*261] equally between employees and shareholders.24 However, the supervisory board is chaired by a shareholder whose vote is decisive when there is a deadlock.25

This differs from the unique supervisory board scheme for companies in the mining, coal, iron, and steel industries set out by the Coal, Iron, and Steel Codetermination Act.26 Here, the supervisory board applies to all companies with more than 1,000 employees and has a neutral member elected by agreement from both sides to offset the shareholder chairman.27 Companies covered under this act are subject to the unions' right to propose members for supervisory board seats, but union members are not required to hold seats, as they still need to be elected.28 This is in contrast to companies covered under the Codetermination Act, where union member participation on the supervisory board is compulsory.29

For companies with 500 to 2,000 employees though, the One-Third Participation Act applies, which explicitly states that unions do not have a right to propose members for board seats.30 Additionally, as the name suggests, employee representatives are outnumbered by shareholders as they only represent one-third of the board.31

[\*262] The Codetermination Act states that employee representatives in companies with more than 8,000 employees are elected by delegates unless the employees agree to a direct election.32 The act states, in each of the company's operations, "employees shall elect delegates by secret ballot and in accordance with the principles of proportional representation."33 There is "one delegate for every ninety employees entitled to vote" (over the age of eighteen).34 If that calculation results in more than:

1.25 delegates, the number of delegates to be elected is reduced to half; these delegates each receive two votes.

2.0 delegates, the number of delegates to be elected is reduced to a third; these delegates each receive three votes.

3.75 delegates, the number of delegates to be elected is reduced to a quarter; these delegates each receive four votes.

4.100 delegates, the number of delegates to be elected is reduced to a fifth; these delegates each receive five votes.

5.125 delegates, the number of delegates to be elected is reduced to one sixth; these delegates each receive six votes.

6.150 delegates, the number of delegates to be elected is reduced to one seventh; these delegates each receive seven votes.35

Companies with less than 8,000 employees directly elect their representatives, unless the employees decide on an election by delegates.36 The alternative election decision is made after one-twentieth of the employees sign an application to bring it to a vote.37 Then, it takes a majority to flip the election process.38

Typically under German codetermination laws the supervisory board is tasked with overseeing and appointing members of the executive board.39 Since Germany employs a two-tiered system with a separate executive board composed of the CEO and other executives the supervisory board appoints, the employee power here is mainly derived from being able to oversee and disapprove of decisions the executives make.40 Unless the company is covered by the Coal, Iron, and Steel Codetermination Act, the employee [\*263] representatives generally serve three main functions with their minority position on the board: sharing information and worker perspectives with the executives, influencing decisions about working conditions, and using their company level information to support workplace level efforts.41

Aimed to compliment the supervisory board, the workplace level "works councils" were established by the Works Constitution Act of 1952, amended in 1972.42 These are voluntary councils of employees, elected by employees, that exert more direct influence on employers over matters of interest to the average worker in contrast to the broad decision-making influence of the supervisory board.43 The works council can draft "works agreements" that act as enforceable agreements with the employer concerning "wage supplements, working time, professional development, or company pension schemes."44 Additionally, employers cannot create new rules regarding a specific set of worker issues without consulting the works council.45 These include health and safety measures, hours, leave plans, pay systems, and procedures to monitor employee conduct and performance.46 Further, works councils' increase in size commensurate with workplace size, much like supervisory boards do at the company level.47

III. BACKGROUND ON LABOR UNIONS IN THE U.S.

Unions have a complicated history in the United States. After steadily growing throughout most of American history and peaking in the 1940's,48 their membership and influence began to steadily decline in the 1960's.49 Beginning with the Taft-Hartley Act in 1947, employers were able to undermine unions' efforts to inform and recruit workers.50 A string of [\*264] subsequent Supreme Court decisions then bolstered employers' ability to delay and disrupt union organizing efforts.51 These, coupled with employers finding creative ways to circumvent the protections of the NLRA,52 created a union-hostile environment in the United States that persists to this day.

From as far back as the early colonial days of the seventeenth and eighteenth century, organizations resembling modern unions influenced American law and politics.53 By the turn of the nineteenth century, numerous strikes and negotiations to improve working conditions by printers, cabinet makers, carpenters, and more were organized by unions.54 As industrialization ramped up around the time of the Civil War, workers began to notice the immense power and wealth their employers were accumulating and recognized the need to join their organizing efforts.55 The National Trades' Union and the National Labor Union were the first short-lived attempts at this but were both casualties of recessions.56 In 1881, delegates from a variety of trades came together in Pittsburgh to form the Federation of Organized Trades and Labor Unions, which adopted a formal constitution and focused significant energy on legislation.57 A few years later, this group evolved into the American Federation of Labor and expanded its membership to include women.58

The next few decades were plagued with intense struggles between titans of industry and the loosely organized, but still relatively weakened unions.59 By 1904, the American Federation of Labor had a membership of 1.7 million workers and was eventually able to urge Congress to create the U.S. Department of Labor tasked with protecting the rights of wage earners.60 In 1914, the Clayton Act was adopted; it enumerated that "the labor of a human being is not a commodity or article of commerce," and reinforced the [\*265] right to strike and boycott while limiting the use of injunctions in labor disputes.61

Against a backdrop of a floundering economy during the Great Depression, President Roosevelt urged Congress to pass the National Recovery Act (NRA), which cemented the rights of unions to negotiate with employers in statute for the first time.62 Although it had no real enforcement power and was eventually held unconstitutional by the Supreme Court, in 1935, the Wagner Act (NLRA) was passed which mandated workers to have freedom of association to organize into unions.63 It also established that companies were obligated to enter into bargaining agreements with government-certified unions.64 In contrast to the NRA, it actually had an enforcement mechanism in the National Labor Relations Board (NLRB).

Despite all this, beginning in the 1960s union membership in the U.S. steadily decreased as workers faced more difficulty getting past each successive step in the process of forming one.65 To form a union workers must procure 30% interest and ask for a government election, win the government election by a majority vote, and negotiate their first contract with their employer.66 This added difficulty can be traced to a few major policy and legal decisions.

Initially, The NLRB required employers to remain neutral on the issue of unions, but the 1947 Taft-Hartley Act allowed employers to freely express their views on unions so long as there was no offer of benefit or threat of reprisal involved.67 Additionally, there was a provision that allowed "employers to file petitions to determine whether their employees actually wanted union representation," a process that was previously only available when multiple unions were competing.68 Subsequently, the NLRB under President Nixon began allowing employers to tell workers that forming a union could be "fatal" or cause "turmoil" because they would risk losing everything they had by starting from the beginning with bargaining.69 They [\*266] could also predict they would have to close down due to finances if workers unionized.70

In Linden Lumber, the Supreme Court ruled that employers could refuse to recognize unions based on majority support and insist on an NLRB election so that they could engage in anti-union campaigns during the delays NLRB involvement would create.71 Further, a 1956 Supreme Court decision in NLRB v. Babcock & Wilcox, held that employers didn't have to give union organizers access to parking lots to talk with employees unless they had no other means of reaching employees.72 This exacerbated the already unequal balance in the ability to communicate with employees between the employer and unions.

Attacks on labor laws intensified when, in the 1970s, employers learned through experience that labor violations never carried any significant penalty.73 Workers do not have a right to sue employers under the NLRA, and the NLRB does not award any monetary damages.74 So even though charges for unfair labor practices increased sevenfold between 1950 and 1980, employers had little incentive to stop engaging in threats, mandatory anti-union meetings, and illegal firings.75

Lastly, Taft-Hartley also allowed states to ban "union security" agreements which ensured all represented employees would share union costs through dues.76 This led to states implementing Right to Work laws that allowed employees to reap the benefits of union representation without sharing in the cost.77 This free-rider problem where employees who do not pay union membership dues still reap union membership benefits severely [\*267] undermined union membership and the impacts of these laws can still be felt today.78

In sum, the methodical erosion of labor laws in the era following the Taft-Hartley Act has left the U.S. in a position where rebuilding the legal framework surrounding unions would take a herculean effort. This has left a major hole in American labor relations, as workers cannot rely on a strong union system to advocate on their behalf, and their employers have nearly free reign to set whatever standards they please.

IV. CODETERMINATION RESTORES WORKER'S VOICES IN A WAY THAT COMPLIMENTS AMERICAN LAW AND POLITICS

German codetermination has the potential to fill the void left by weakened unions because it doesn't require strong union participation, it can be adapted to fit the U.S. statutory labor law scheme, and German corporations have key similarities to American ones. Notably, an additional key detail is that the U.S. adheres to a "shareholder primacy" scheme of corporate governance which has the sole purpose of maximizing shareholder benefit.79 This philosophy goes back to the Berle-Dodd Debate in the 1930s where Berle espoused the idea that corporate law should function like trust law, in that corporate managers owed a fiduciary duty to manage the corporation in the interest of shareholder-beneficiaries.80 Dodd, on the other hand, argued that corporate managers "should concern themselves with the interests of employees, consumers, and the general public, as well as of the stockholders."81 In Dodd's view, corporations have "a social service as well as a profit-making function."82 As we now know, Berle's argument won the [\*268] day, because shareholders are deemed as the owners of the corporation with their interest defined in property rights.83

Milton Friedman said, "an entity's greatest responsibility lies in the satisfaction of the shareholders."84 This norm has now permeated much of corporate culture in the U.S., as well as the world, and has led to companies making hasty decisions in order to reach short-term goals for the sake of shareholder benefit.85 Often this has the effect of corporate managers neglecting the long-term effects of their decisions on consumers, the environment, and workers.86

The shareholder primacy corporate culture, combined with a neutered union framework, has created a landscape that effectively silences worker voices. One of the few remaining places workers can turn to have their interests protected are labor specific statutes. Statutory schemes such as the Fair Labor Standards Act, the Occupational Safety and Health Act, and the Employee Retirement Income Security Act provide certain protections to workers but are contingent on a legislature that values the interest of labor.87

Although this reality may appear bleak, it presents a unique opportunity for the U.S. to take advantage of its statute-heavy, bargaining devoid, labor relations scheme and legislate a federal codetermination law. Even though Germany has a thriving union culture in comparison to the U.S., its codetermination scheme can operate entirely independently of it.88 The Codetermination Act only specifically calls for union participation in Section 7 "Composition of the Supervisory Board," and states:

The employee members of the supervisory board must include:

1.In a supervisory board composed of six employee supervisory board members, four employees of the company and two representatives of trade unions;

2. [\*269]

In a supervisory board composed of eight employee supervisory board members, six employees of the company and two representatives of trade unions; and

3.In a supervisory board composed of ten employee supervisory board members, seven employees of the company and three representatives of trade unions.89

At no other point in the act are unions mandated to be a part of any of the functioning of supervisory boards; their members sitting on the board are merely granted rights that are commensurate with the rights of non-union board members.90

Furthermore, the Works Constitution Act similarly allows for cooperation with and participation of trade unions in works councils but lacks any language mandating them to be a part of them.91 The act states, "the employer and the works council work together in a spirit of mutual trust having regard to the applicable collective agreements and in co-operation with the trade unions and employers' associations represented in the establishment for the good of the employees and of the establishment."92

Thus, the works councils have even less of a required tie to the unions than the supervisory boards do. They are simply provided for in the statutory language to assure that since they do exist, the council will respect their agenda as it goes about its work.

This framework, where the supervisory board and works council are encouraged to work with the unions but only required to in one section of the Codetermination Act, lends itself nicely for application in the United States. Since American unions have relatively little influence, a codetermination scheme that does not rely on them to function fits snuggly into U.S. labor law. The U.S. would only need to erase the language that mandates that a share of supervisory board seats go to union members, and simply indicate that half of the seats are occupied by shareholders and half by employees. If a union exists and wants to collaborate with the board or council, they have the right to, but it is not required.

Also, the election process outlined in the Codetermination Act translates smoothly into U.S. companies as well.93 The same principle of unions [\*270] providing input on delegates or candidates if they exist can apply here because the election process is capable of being run entirely independently of unions. The first set of board elections would be organized by management, and from there on out the representatives could run the employee elections as they internally deem fit. As for the shareholder representatives, U.S. corporations already have internal processes for electing their board, so that side will not need to be dictated at all by codetermination law.94

If the U.S. follows the German approach, perhaps it should not make a distinction between companies with less than 2,000 employees only having one-third representation, and companies with more than 2,000 employees having near parity.95 Germany, and other European codetermination countries, can get away with this distinction because their various collective bargaining schemes ideally make up for the power that minority board representation lacks. The U.S. does not have strong collective bargaining to fall back on, so it needs to implement the most effective form of codetermination in order to restore workers' voices. A Finnish representative said this about the dynamic between workers and shareholders with a minority rule: "We have the same powers and responsibilities, but of course I know where the power lies. Of course, if we come to a vote, then we lose but the [shareholder representatives] always seek consensus . . . . Very frequently, they ask us, they challenge us, and so they want our opinion."96 There are undoubtedly benefits merely from the dialogue fostered with minority worker representation, but the U.S. needs to maximize worker power, which is what parity codetermination potentially offers.97

Another aspect of German codetermination that can be especially useful for the U.S. is its two-level structure.98 The supervisory board operates separately from the executive board, as essentially an auditor of its decisions, so corporations can retain their current hierarchy that has been built out of the shareholder primacy norm.99 The executive board still makes the high-level operating decisions for the entire company and can continue operating to maximize shareholder benefit, but workers will have the backstop of the [\*271] supervisory board it reports to, to hold it accountable for any erroneous or harmful decisions it makes.100

Further, at the company ground level at all the various branches, plants, and stores, the works council can have its finger on the pulse of the day-to-day decisions of management.101 This can fill in the gaps of where unions are lacking influence over the issues most tangible to the average worker. In Germany, employers cannot make changes to the issues covered by works agreements without first consulting the works council.102 This, combined with the Nordic style "single channel" workplace representation,103 is perfectly applicable to achieve the bargaining power the U.S. lacks in the absence of unions. The issues works councils negotiate with employers on include safety measures, hours, benefits, and pay systems, which are the kinds of things unions would have covered before they were gutted.104 The U.S. can adopt this exact system and include wage negotiation to create a system where workers' voices are mandated to be heard at all levels of employer decision-making.

The U.S. clearly has made a concerted effort over the years to pass legislation on tangible issues in workers' everyday lives. Regulations regarding working conditions, minimum wages, benefits, and many other topics can be found in statutes the U.S. Department of Labor enforces.105 So if the U.S. wants to maintain this dedication to protecting workers by statute, it makes sense for a federal statute introducing codetermination to be added to the Department of Labor's toolbox. It would be consistent with the nation's trend of holding employers accountable by statute, while also creating an added dimension of direct worker influence on how these companies make decisions.

In addition, the U.S. and Germany share some key corporate law and structure norms that may prove to streamline the adoption of codetermination. First, German corporations like their American [\*272] counterparts drifted away from considering all stakeholders in their decision-making in the second half of the twentieth century.106 In 1965, the German Stock Corporation Act was revised to eliminate previously enumerated duties to the welfare of the corporation, employees, the people, and the state.107 The rationale for the elimination was that these duties were implied in every corporation, but as can be observed from American corporate culture, eliminating these express duties has the tendency to allow profit-seeking corporations to act in more myopic ways.108 Today, many corporate directors in Germany mainly consider the interests of the large banks that own most corporate stock to the detriment of other small shareholders and stakeholders.109

Second, state corporate laws usually permit U.S. corporations to adopt a two-level structure similar to Germany's supervisory board and executive board.110 The board of directors in U.S. corporations typically outsources their day-to-day operational decision-making duty to a group of executives that report to the board, like how the executive board is subject to supervisory board disproval in German companies.111 The main difference between the [\*273] two is that American boards are more acutely scrutinized by individual shareholders who can remove the board with or without cause; in Germany, boards can only be removed for cause with a lower standard of proof than in the U.S.112

One key difference to note is that German law holds corporate managers to the standard of a "diligent and conscientious manager."113 U.S. law, on the other hand, only holds managers to the standard of care of an "ordinarily prudent person in a like position."114 Although this standard difference can potentially lead to incongruent outcomes in lawsuits, when accountability is handled internally, these two approaches should be easily reconciled. Each company will be different in how its supervisory board and executives interact, so the state's law on the official standard of care they are beholden to will not make a difference since the U.S. has a lower standard than Germany to begin with. German courts also give managers less discretion than American courts, more often deciding they have taken unreasonable risks.115 Since U.S. courts are less likely to question companies' business judgment, codetermination can serve as a useful backstop to internally stop nearsighted decisions from being made that German courts would hold companies accountable for.

Moreover, in Stop the Beach Renourishment, Inc. v. Florida. Dep't of Env't Prot., a Florida statute allowing local governments to get permits to restore coastlines where private citizens owned property rights was not a constitutional taking.116 The owners had the right to access the water from their property and receive accretions (gradual additions of sand and other materials) to their property and claimed that the government restoration would create a new boundary line so that new accretions would be on public land rather than theirs.117 The Supreme Court reasoned that these rights to [\*274] future exposed land and contact with the water were inferior to the State's right to restore its coastal land.118

This is significant for the constitutionality of codetermination legislation because the statute allowed for a public determination that the outer edges of the owner's property rights should yield restoration for the public good.119 This same logic may be applied to potential takings clause challenges to codetermination, as employee representation can be analogized to public restoration to the outer edges of privately held companies. With the precedent set by Stop the Beach Renourishment Inc., codetermination is more likely to survive constitutional challenges like it did in Germany at its inception.120

Finally, passing codetermination legislation seems to be becoming more politically feasible. In 2018, Senator Elizabeth Warren proposed the Accountable Capitalism Act which provided, among other corporate governance changes, that "the boards of United States corporations must include substantial employee participation: Borrowing from the successful approach in Germany and other developed economies, a United States corporation must ensure that no fewer than 40% of its directors are selected by the corporation's employees."121

Additionally, that same year, Senators Tammy Baldwin, Brian Schatz, and Elizabeth Warren sponsored the Reward Work Act, which would require every publicly traded company to allow employees to elect one-third of its board of directors.122 Although neither of these bills rises to the level of German codetermination, they prove that there is interest in the concept at one of the highest levels of the U.S. government. A 2018 study by Data for Progress found that 52% of likely 2018 voters supported codetermination and only 23% opposed it.123 Not only does German codetermination fit well into American labor law, but it is also on the verge of having legitimate political viability.

[\*275]

V. CODETERMINATION PRODUCES BENEFITS FOR WORKERS SIMILAR TO UNIONS

The benefits workers see from strong union representation are well documented.124 Therefore, for codetermination to legitimately make up for where union representation in the U.S. lacks, it needs to create similar benefits. Luckily, Germany, and many other European countries, have experience with their systems in place to study the impacts.125

First off, it has been found that companies governed by codetermination invest more domestically than U.S. companies do.126 This has led to more capital-intensive production that serves overseas markets better, evidenced by Northern European countries' relatively smaller trade deficits with China compared to the U.S.127 This has also benefitted the workforce by increasing the share of skilled workers in high-wage jobs in a codetermination country's labor forces.128 As companies governed by codetermination consider the needs of all stakeholders, including workers and their communities, more fulfilling jobs will be created domestically rather than outsourced.

Another example of codetermination considering the needs of all stakeholders can be found in a 2019 study on the relationship between codetermination and a company's corporate social responsibility (CSR) policies.129 The results were that codetermination has a positive relationship with substantive CSR policies like targets for reduction in emissions, CSR reporting, and employment security.130 This study made clear that when employees have their voices heard at the highest level of management, companies respond with more sustainable decision-making.

[\*276] A 2004 study by Forschungsinstitut zur Zukunft der Arbeit [Institute for the Study of Labor] looked at sixty-five companies' productivity levels before and after the Codetermination Act of 1976.131 The study concluded that these newly codetermined companies increased overall productivity in the years following the Codetermination Act compared to the years preceding it.132 This result is in stark contrast to many of the criticisms leveled at codetermination, which worry that it will negatively impact productivity and profits as the cost for redistributing power to workers.133 When worker perspectives are represented at the highest levels of decision-making, everyone involved in the company wins. Productivity can be increased, resulting in more returns for shareholders, and resulting in better jobs for workers.134

An additional study from Hans-Böckler-Stiftung compared German companies with codetermination to similar European companies without codetermination as they recovered from the Great Recession.135 The study found that between 2006 and 2011, German companies saw a 7.2% increase in earnings per share, while the other European countries saw a 21.1% decrease.136 Additionally, the German companies cut jobs at a lower rate than the other companies during and while recovering from the recession.137 This is likely because they chose to cut pay instead, as their employees were already making more on average than those at the non-codetermination companies.138 Finally, the codetermination companies made significantly more investments in research and development and new plants between 2008 and 2013.139 This is an excellent example of codetermination helping [\*277] companies put long-term investments into action that they might not have if they were only run with short-term shareholder profits in mind.

From a broad, company-wide perspective, codetermination can lead to more sustainable decision-making that creates better jobs for workers and long-term returns for companies. This doesn't necessarily remedy the ills that diminished unions in the U.S. have plagued workers with. There needs to be specific evidence that workers will see substantive change under codetermination.

**S – Codetermination – 2NC**

**The union framework is doomed---only codetermination can represent workers.**

Anthony **Carini 24**, J.D. Candidate (2025) at Southwestern Law School, Staff Editor of the Southwestern Journal of International Law, 2023-2024, "Codetermination as a Remedy for American Labor Woes, or How I Learned to Stop Worrying and Love the Bomb," Southwestern Journal of International Law, vol. 31, 2024, p. 256, Lexis

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Against a backdrop of a floundering economy during the Great Depression, President Roosevelt urged Congress to pass the National Recovery Act (NRA), which cemented the rights of unions to negotiate with employers in statute for the first time.62 Although it had no real enforcement power and was eventually held unconstitutional by the Supreme Court, in 1935, the Wagner Act (NLRA) was passed which mandated workers to have freedom of association to organize into unions.63 It also established that companies were obligated to enter into bargaining agreements with government-certified unions.64 In contrast to the NRA, it actually had an enforcement mechanism in the National Labor Relations Board (NLRB).

Despite all this, beginning in the 1960s union membership in the U.S. steadily decreased as workers faced more difficulty getting past each successive step in the process of forming one.65 To form a union workers must procure 30% interest and ask for a government election, win the government election by a majority vote, and negotiate their first contract with their employer.66 This added difficulty can be traced to a few major policy and legal decisions.

Initially, The NLRB required employers to remain neutral on the issue of unions, but the 1947 Taft-Hartley Act allowed employers to freely express their views on unions so long as there was no offer of benefit or threat of reprisal involved.67 Additionally, there was a provision that allowed "employers to file petitions to determine whether their employees actually wanted union representation," a process that was previously only available when multiple unions were competing.68 Subsequently, the NLRB under President Nixon began allowing employers to tell workers that forming a union could be "fatal" or cause "turmoil" because they would risk losing everything they had by starting from the beginning with bargaining.69 They [\*266] could also predict they would have to close down due to finances if workers unionized.70

In Linden Lumber, the Supreme Court ruled that employers could refuse to recognize unions based on majority support and insist on an NLRB election so that they could engage in anti-union campaigns during the delays NLRB involvement would create.71 Further, a 1956 Supreme Court decision in NLRB v. Babcock & Wilcox, held that employers didn't have to give union organizers access to parking lots to talk with employees unless they had no other means of reaching employees.72 This exacerbated the already unequal balance in the ability to communicate with employees between the employer and unions.

Attacks on labor laws intensified when, in the 1970s, employers learned through experience that labor violations never carried any significant penalty.73 Workers do not have a right to sue employers under the NLRA, and the NLRB does not award any monetary damages.74 So even though charges for unfair labor practices increased sevenfold between 1950 and 1980, employers had little incentive to stop engaging in threats, mandatory anti-union meetings, and illegal firings.75

Lastly, Taft-Hartley also allowed states to ban "union security" agreements which ensured all represented employees would share union costs through dues.76 This led to states implementing Right to Work laws that allowed employees to reap the benefits of union representation without sharing in the cost.77 This free-rider problem where employees who do not pay union membership dues still reap union membership benefits severely [\*267] undermined union membership and the impacts of these laws can still be felt today.78

In sum, the methodical erosion of labor laws in the era following the Taft-Hartley Act has left the U.S. in a position where rebuilding the legal framework surrounding unions would take a herculean effort. This has left a major hole in American labor relations, as workers cannot rely on a strong union system to advocate on their behalf, and their employers have nearly free reign to set whatever standards they please.

**2. CP enshrines a democratic structure---even if the framework for negotiation is fixed, that still solves.**

Christian **Schemmel 24**, Department of Politics, The University of Manchester, Manchester, UK, "Workplace Democracy as the Liberal Republican Default," Political Studies, vol. 73, no. 3, 09/12/2024, https://doi.org/10.1177/00323217241274012

Conclusion: Objections

One typical liberal objection to arguments for mandatory workplace democracy holds that it jettisons liberal neutrality by enshrining a preference for a particular workplace environment that not all workers share (Taylor, 2014). If the argument so far is sound, then this objection is unsuccessful, because the argument did not rely on any special goods of democratic workplace organisation, such as positive conceptions of self-determination at work, but only on non-domination, negatively understood. This is why it can only lead to a workplace democratic default, not more. However, if there have to be defaults, they inevitably enshrine preferences for some types of workplaces over others that not all workers might share. There is no such thing as a neutral default. What matters is which defaults do better by liberal republican non-domination.

However, it seems possible for adherents for exit power to press on with a variant of the objection. Perhaps what we should do, instead of enshrining a democratic default for firms over a certain size, is to increase background equality of circumstances for all workers to such a high level that all workers have a choice of so many differently organised workplaces that working in a hierarchically organised one is extremely easy to avoid. Even if some still choose this arrangement, the fact that it is so easily escapable means that this does not amount to domination. Or perhaps, no employer would venture to offer such a workplace anymore, anyway, because there would be no demand for it. That would then be the more liberal solution.

Of course, if we assume that unconditional resources can be set at such a high level, and stably sustained, that might bring about this ideal state. However, we have seen that, even in ideal theory, at such a high level, transaction costs for slotting workers – who can continue to say ‘no’ to all job offers – into jobs may be so high that this would be a very risky strategy. Aiming at that level might conflict with any reasonable idea of productive efficiency we should hold on to; we cannot know in advance. Default workplace democracy achieves workplace non-domination at much less risk.

Furthermore, and just as importantly, this proposal fares worse than default workplace democracy also from the point of view of transitional theory. The political prospects of implementing such highly ambitious unconditional resource schemes are very low everywhere: being able to bring them about would arguably require fairly complete working-class dominance at the level of political decision-making (Gourevitch and Stanczyk, 2018), where these schemes – if economically sustainable – would then need to be irreversibly entrenched, for example, constitutionally, through supermajorities.30

**AT: Links to NB – 2NC**

**CP avoids our econ links---they’re about the structure of voice within collective bargaining, NOT voice itself.**

Liya **Palagashvili &** Revana **Sharfuddin 25**, Palagashvili is Assistant Professor of Economics at State University of New York; Sharfuddin is predoctoral researcher at the Labor Policy Project at the Mercatus Center at George Mason University, "Do More Powerful Unions Generate Better Pro-Worker Outcomes?," Mercatus Center, 05/07/2025, https://www.mercatus.org/research/working-papers/do-more-powerful-unions-generate-better-pro-worker-outcomes

Abstract: Labor unions are often evaluated through the wage premiums they secure at the bargaining table. Our study finds that although US unions have historically secured short-run pay gains, these victories often come at the expense of slower employment growth, fewer future job opportunities, reduced investment and productivity, and diminished firm growth and viability. Yet downstream job losses and firm decline can be traced not to the collective voice itself but to the statutory monopoly structures that amplify aggressive bargaining tactics and block alternative channels for cooperation. These trade-offs arise not because unions are uniquely “aggressive,” but because US labor laws promote a legally protected union monopoly that crowds out constructive representation and worker voice. Drawing on 147 studies, we find that when the monopoly face dominates and delivers seemingly “big wins” at the bargaining table, companies respond to wage pressure by trimming R&D, cutting capital, reducing company growth, and ultimately shrinking jobs for unionized workers—dynamics that explain roughly 55 percent of the decline in the Rust Belt’s share of manufacturing employment between 1950 and 2000. Cross-country evidence shows that systems permitting multiple forms of representation, voluntary unions, and flexible agreements retain the benefits of worker voice without the high costs linked to the downsides of monopolies. These findings show no link between greater union power and increased worker welfare: It is the structure of representation—not the presence of a collective voice—that determines whether unions help or harm workers. Policy reforms that relax monopoly privileges for labor unions in the US and encourage pluralistic forms of worker voice and moderate demands could preserve the gains of collective bargaining while mitigating its unintended costs.

### S – Codetermination – AT: 1AR Hammond

**Links to plan.**

**Hammond 18** – Director of Social Policy at the Niskanen Center, former Fellow at the Mercatus Center, M.A. in Economics from Carleton University, M.A. in Economics from George Mason University.

Samuel Hammond, “Elizabeth Warren’s Corporate Catastrophe,” National Review, 08-20-2018, https://www.nationalreview.com/2018/08/elizabeth-warren-accountable-capitalism-act-terrible-idea/

Milton Friedman was simply wrong, descriptively and prescriptively. That does not mean, however, that Warren and Yglesias’s alternative theory of corporate social responsibility — what philosophers call “stakeholders theory” — is a good idea. As the influential business ethicist Kenneth Goodpaster once observed, simply multiplying the number of stakeholders blurs traditional goals in terms of entrepreneurial risk-taking, pushes decision-making towards paralysis because of the dilemmas posed by divided loyalties and, in the final analysis, represents nothing less than the conversion of the modern private corporation into a public institution.

This raises the question of why we have private corporations in the first place. Ever since the late Ronald Coase published his famous theory of the firm, economists have tended to argue for a view grounded in public policy. Namely, shareholder corporations dominate modern economies because they are, as a nexus of contracts, much more efficient at pooling capital and directing resources than any competing organizational form. Thus the normative foundation of corporate law is not any subset of stakeholders, but the welfare of society as a whole.

Business ethicist John Boatright makes the point a bit differently, noting that through bargaining, “any constituency or stakeholder group could conceivably make its interests the objective of the firm and the end of management’s fiduciary duty.” The fact that shareholders tend to bargain hardest for formal control simply stems from their greater exposure to losses as residual claimants.

Enforcing co-determination rules doesn’t change this fact. On the contrary, when scandal struck Volkswagen in 2005, the blame was laid squarely at co-determination’s feet. Members of Volkswagen’s supervisory board, widely seen as an “old-boys network” in its own right, were caught exchanging favors, including access to prostitutes, in exchange for union-member votes. It turns out Coase’s theory drives a hard bargain.

As the Democratic party debates whether or not to embrace “democratic socialism,” Warren, to her credit, claims she’s “a capitalist to my bones.” Yet the fact remains that the Accountable Capitalism Act is in many ways the most radical proposal advanced by a mainstream Democratic lawmaker to date. Not because Germany is a socialist dystopia, but because, unlike universal health care or increased spending on the poor, Warren’s proposal is to fundamentally upend the way the most productive companies in the American economy work from the top down.

Forget “If you like your doctor, you can keep your doctor.” Warren’s plan will have you asking if you can keep your retirement savings. As Yglesias notes in his piece, co-determination could cause average share prices to plummet by as much as 25 percent. But don’t worry, says Yglesias: “Cheaper stock would be offset by higher pay and more rights at work.”

Maybe. Or maybe, after the dust settles, we would find ourselves in a new, lower equilibrium — one with less inequality, perhaps, but even lower productivity, as America’s corporate unicorns are converted into glitter glue.

A wise person once said that a model based on preventing the worst-case scenario risks stopping the best-case scenario from ever coming about. The American system, whatever its flaws, is exceptional in its openness to visionaries. Warren’s plan, based on bad economics and worse business ethics, is nothing short of a plan to hold those with vision to account.

### AT: Links to NB – 2NR

**Empirics. Equity prices respond well to codetermination.**

Grant M. **Hayden &** Matthew T. **Bodie 21**, Hayden is Professor and Robert G. Storey Distinguished Faculty Fellow, SMU-Dedman School of Law; Bodie is Callis Family Professor, Saint Louis University School of Law, "Codetermination in Theory and Practice," Florida Law Review, vol. 73, 03/2021, pp. 321-359

3. The Battle for Corporate Power

Because American corporate law scholarship has not really taken codetermination seriously, it has not joined the true conflict at the heart of the debate: the struggle between shareholders and employees--between capital and labor--for power. The U.S. system is premised on the idea that total shareholder control will keep labor in check and spur management to get the highest returns possible for equity holders. By labeling employees with all other stakeholders as "fixed" claimants, shareholder primacy can categorize an increase in shareholder returns as an overall increase in efficiency rather than a claim to a large share of the pie. But as corporate profits and share prices have ratcheted upwards, and workers' wages have remained stagnant, the effects of shareholder primacy can be keenly felt. Shareholders run the game, and they use their power to increase their gains.

Codetermination breaks this shareholder vise-grip on corporate control. It empowers employees by giving them a voice and a role within the governance of the firm. As a result, shareholders are likely to see their power within the corporation diminish. But this is a feature, not a bug. There are larger empirical questions about which system works best that can be measured in different ways: equity prices, wages, Tobin's Q, gross domestic product (GDP), environmental harm, or return to creditors. As discussed in Part III, codetermination has scored solidly under these measures, and it has held up even more strongly in the wake of recent crises. But the ideological questions of shareholder and worker power are a critical part of the debate--one that law-and-economics research has largely ignored.

**S – Productivity – 2NC**

**Codetermination results in boards making better decisions AND improving productivity.**

Grant M. **Hayden &** Matthew T. **Bodie 21**, Hayden is Professor and Robert G. Storey Distinguished Faculty Fellow, SMU-Dedman School of Law; Bodie is Callis Family Professor, Saint Louis University School of Law, "Codetermination in Theory and Practice," Florida Law Review, vol. 73, 03/2021, pp. 321-359

A number of studies have assessed the economic effects of codetermination, with a consensus that has shifted back and forth over the last four decades. 178Some early studies from the 1980s found that codetermination had very little impact on corporate performance. 179Those studies, however, were criticized on a number of methodological grounds. 180Several more sophisticated evaluations in the 1990s and early 2000s gave a more pessimistic account, finding that codetermination was associated with, among other things, lower productivity and lower profits. 181That consensus, though, soon gave way to a third phase in the literature, one that both reversed the principal findings of the second-phase [\*352] studies (finding them to be artifacts of a particular method of assessment) 182and found that codetermination was also modestly associated with greater innovation. 183These more optimistic assessments were bolstered by a couple of modern financial studies on the market value of the firm, which found that "prudent levels of employee representation" led to better board decision-making by improving monitoring and thus reducing agency costs. 184"Armed with better information," Professors Larry Fauver and Michael Fuerst explain, "the supervisory board may more easily recognize and thwart investments and strategies that represent private control benefits to large shareholders or management through asset stripping, pyramiding, dilution of small investors, crony capitalism, and simple perquisites." 185A similar finding was made by Kornelius Kraft and Marija Ugarkovi?, who found that the 1976 strengthening of codetermination positively affected returns on equity. 186Uwe Jirjahn, summing up the studies in 2011, reported that codetermination was connected to higher productivity, and that more recent studies (unlike earlier ones) had found that codetermination also had a positive effect on profitability and capital market valuation. 187This third, rather optimistic phase of assessment brings this Article to one of the most profound tests of all systems of corporate governance: the Global Financial Crisis of 2008.

The financial crisis did not spare any of the world's major economies, but some recovered more quickly than others. Germany, in particular, recovered more quickly and more thoroughly than many other countries, [\*353] and did so, at least in part, because of its corporate governance model. 188Economic downturns are always difficult for companies and their employees. But codetermination allows the management of many companies "to more easily seek the consent of its workforce for carrying out more or less drastic measures." 189These measures include a system ( Kurzarbeit) that temporarily reduces the working hours (and salaries) of many of the employees. 190This avoids painful layoffs and allows companies to retain their core workforces, which, in turn, allowed the economy as a whole to avoid the worst of the economic slump. 191This led one group of scholars to conclude: "Particular to Germany was the social partner's willingness to work together during this specific economic hardship. . . . [I]t cannot be denied that the quality of industrial relations was a factor in overcoming the crisis." 192

There are, of course, some caveats to this story. The labor stockpiling that smoothed over the effects of the recession was tailor-made for the particular economic woes that hit Germany: a short-term demand shock that primarily affected the manufacturing sector. 193More typically, German employment follows GDP, sometimes with a slight delay. 194But the system worked surprisingly well this time around, and the resulting difference between Germany and the United States was apparent in the early part of the recovery period. 195

A number of new studies came out during the period of recovery that were consistent with the third phase of the literature, showing that codetermination generally had positive economic effects. One of the stronger results came from a 2020 study by Simon Jäger, Benjamin Schoefer, and Jörg Heining, which found, "if anything, that board-level codetermination raises capital formation." 196This shift toward more [\*354] capital-intensive production may be the result of worker involvement in investment decisions, the fact that worker representatives may have longer-term views than shareholders or executives, or because shared governance generally facilitates cooperation between firms and their employees. 197Shareholders, on this account, may be better off investing in firms where employees have a stronger governance role. Other studies were more circumspect. One model by Kraft found that codetermination did not significantly affect productivity in either direction. 198And an event study by Stefan Petry provided a note of caution, showing that the expansion of codetermination in 1976 was correlated with a decrease in share price at the time. 199

Codetermination may also strengthen bonds between management and labor, perhaps to the detriment of shareholders. A recent study by Professors Chen Lin, Thomas Schmid, and Yang Sun found that executive compensation and employee job protections increased when companies came under the aegis of codetermination. 200Not surprisingly, integrating employee representatives into leadership can lead those representatives to be closer with their boardroom cohort. That can lead employee representatives to be more understanding of management concerns, or managers to be more solicitous of the worker perspective. 201Overall, however, it is fair to say that the emerging consensus of the studies of the effects of codetermination on firm performance is quite positive. A number of studies have shown that employee representation is accompanied by higher productivity, profitability, and capital investment. And it is clear that codetermination contributed to Germany's ability to recover from the Global Financial Crisis much more quickly than other countries without strong systems of employee representation. Shareholders have fared pretty well. But how does codetermination affect the fortunes of other corporate constituents?

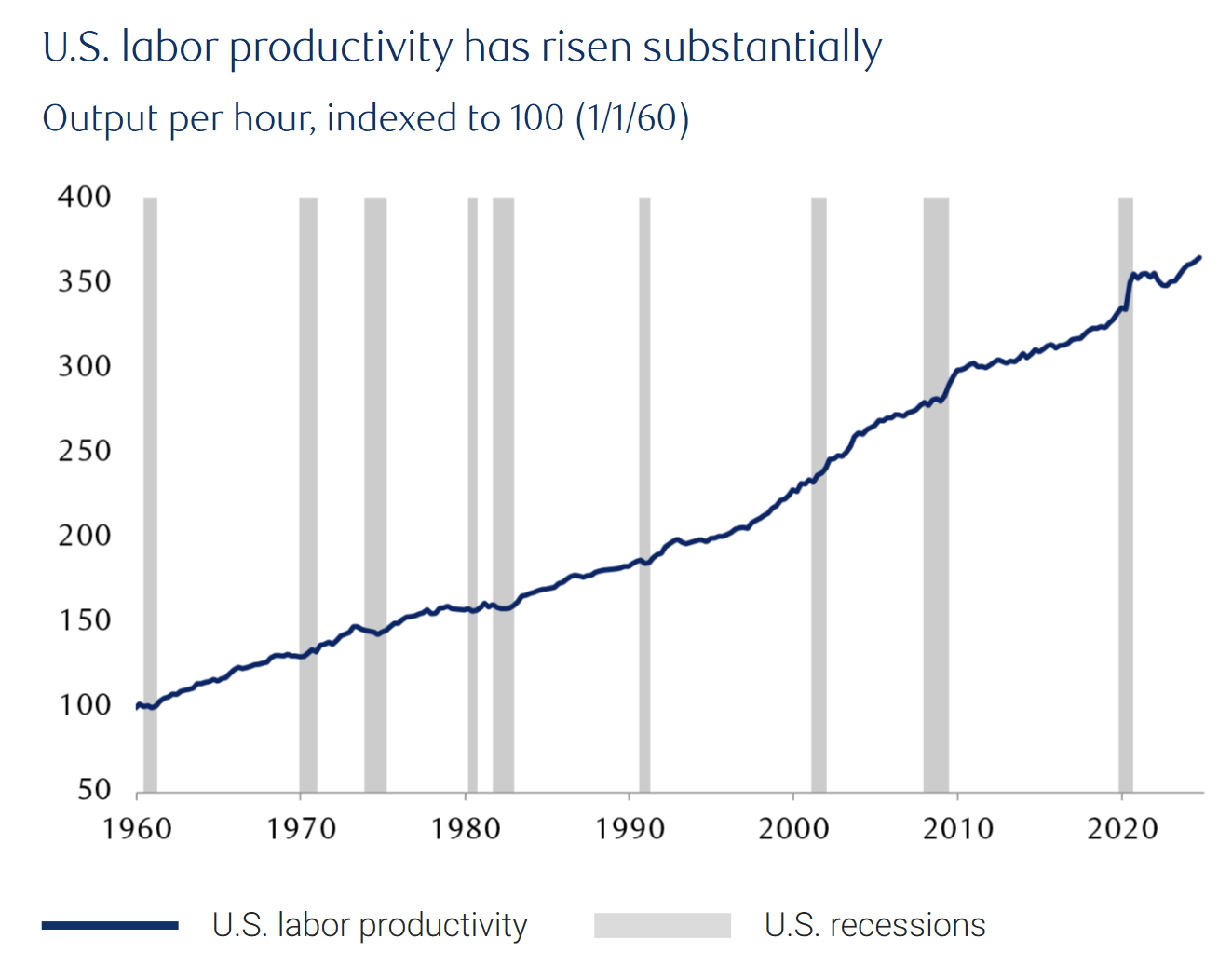
**x. Aff not key. Workforce productivity is high now.**

Joseph **Wu 24**, Vice President and Portfolio Manager at RBC Wealth Management, CFA, "U.S. productivity renaissance," RBC Wealth Management, 12/12/2024, https://www.rbcwealthmanagement.com/en-us/insights/us-productivity-renaissance

This rise in worker efficiency has been a major—if underappreciated—factor underpinning the U.S. economy’s faster growth trajectory over the past two years. Between Q2 2022 and Q3 2024, U.S. real GDP expanded by 6.7 percent, compared to 4.5 percent for Canada, 1.5 percent for the eurozone, and 1.4 percent for the UK.

The long arc

U.S. workforce productivity boasts a reliable record of long-term improvement. Since 1960, U.S. productivity has grown at a 2 percent compounded annual growth rate. Though seemingly modest, this steady pace has an extremely large cumulative effect: workers in the U.S. are now roughly 250 percent more productive than their 1960 counterparts.



### Productivity High Now – 2NC

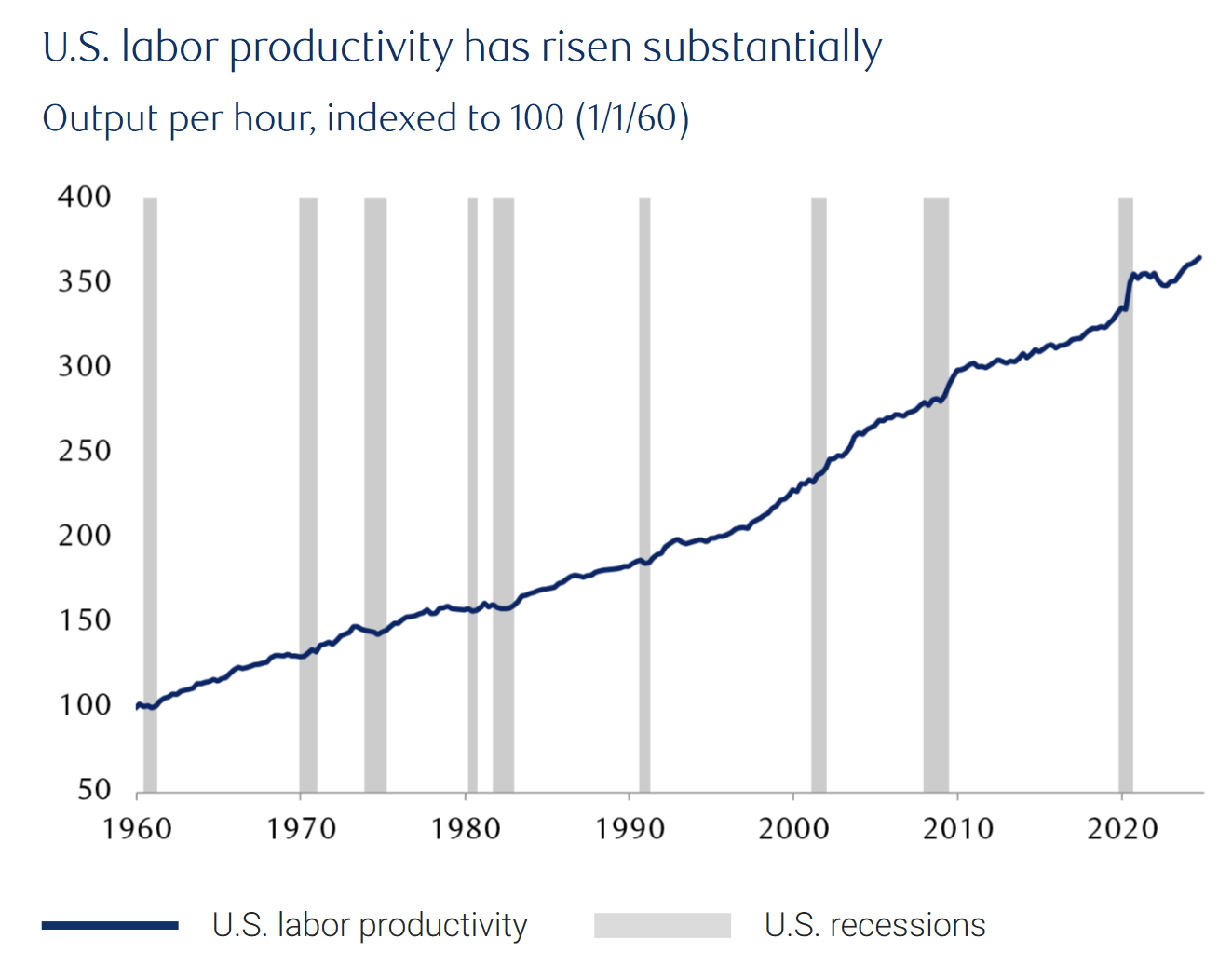
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## DA

### CP – 1NC

#### ban the right to strike for workers in the United States

**DA – 1NC**

**Corporate debt burdens are sustainable---unexpected deterioration in credit conditions triggers rapid systemic collapse, especially for chemicals.**

Sarah **Limbach et al. 12/3**, Limbach is Primary Contact at S&P Global Paris; Barbara Castellano is Primary Contact at S&P Global Milan; Roberto H Sifon-arevalo is Primary Contact at S&P Global New York, "Refinancing Risk: What If The Wind Changes?" S&P Global Ratings, 12/03/2025, https://www.spglobal.com/ratings/en/regulatory/article/refinancing-risk-what-if-the-wind-changes-s101660722

Corporates are already adjusting to higher refinancing costs, but unexpected increases could pose challenges for companies at the lower end of the rating scale. Sovereigns appear more resilient to potential significant shocks in financial markets.

How this will shape 2026

Maturities seem manageable amid higher refinancing costs. About $1.35 trillion of nonfinancial corporate debt will mature in 2026, as of Oct. 1, 2025, 10% higher than at the same time in 2025. That said, the weakening dollar during the first half of 2025 increased the value of non-dollar denominated debt, when converted into USD. A significant portion of upcoming maturities were issued in the low-interest rate environment of 2020/2021. Consequently, European and U.S. corporate issuers with fixed-rate 2026 maturities may face higher funding costs, of about 150 basis points across the board, if refinancing at current yields.

Pockets of risk exist among the weakest-rated issuers. Most issuers have been able to roll over their debt in recent years despite higher funding costs, but those with weaker financial or economic fundamentals could face increased pressure in 2026. Recent strong speculative-grade issuance has pushed back maturities, though refinancing risk among issuers rated in the 'CCC' to 'C' categories is evidenced by their 2026 maturities, which are more than double that of 'B-' rated issuers, as of Oct. 1, 2025. What's more, bond prices in the secondary market for bonds rated 'CCC+' to 'C' with upcoming maturities reflect a more bearish view from investors on that category.

Sovereign issuers will maintain access to financing. Even during periods of liquidity stress, such as after the global financial crisis and during/after the pandemic, sovereigns largely maintained access to funding, albeit with varying terms and conditions. Should 2026 prove turbulent, the critical role of sovereign debt as a relatively stable source of capital will once again come to the fore. We expect sovereign entities, often supported by central banks, to continue to be key players in financial markets, particularly if conditions deteriorate.

What we think and why

We anticipate that corporates will continue refinancing maturities, barring a triggering event. Potential catalysts for such an event include escalating geopolitical tensions, a marked deterioration in economic conditions, or disruptions coming from specific sectors that spread through financial markets.

Worsening credit metrics are likely to exacerbate refinancing pressure in some sectors. Excluding the financial sector, the automotive industry has the highest amount of debt maturing in 2026--over $170 billion, with nearly half stemming from European issuers. It is also the sector with the highest negative bias (issuers assigned a negative outlook or placed on CreditWatch negative). The sector's downgrade risk points to a deterioration in funding conditions going forward. Telecommunications and chemicals, packaging, and environmental services carry an elevated risk of future credit deterioration while also holding the highest amount of debt rated in the 'CCC' to 'C' categories that matures in 2026.

Beyond existing maturities, the substantial funding needs associated with AI data centers are expected to add volatility to the debt market in 2026. The scale of funding needed for these projects, coupled with uncertainty surrounding their valuations, is already generating some market volatility.

What could change

Continued geopolitical or economic tensions may lead to a moderate deterioration in financing conditions. If financing costs rise significantly, investors will likely be more selective in the lower end of the rating scale. Industries that are already facing challenges--such as automotive and basic chemicals--would likely be most affected. Conversely, sectors benefiting from AI and data center investments--including high-tech, automation, electrification, and parts of the real estate and construction sectors--could maintain better access to debt, even under less favorable conditions.

A more extreme scenario--driven by the exacerbation of existing tensions or a "black swan" event--is unlikely at this stage but could trigger a market shutdown. The most immediate risk would be a liquidity crunch, disproportionately affecting corporates with weaker credit ratings, imminent refinancing needs, or significant operating losses and cash burn. Investment-grade issuers typically have liquidity buffers and access to bank facilities and private loans. However, access to these funding channels may also be constrained in such a scenario, and a prolonged shutdown would challenge even the most resilient issuers' ability to refinance. Companies in non-essential goods and services sectors--such as leisure, durable goods, and autos--are most exposed to rapid contractions in demand. Business-to-business companies, such as auto suppliers or capital goods manufacturers, would also be indirectly exposed to a decline in end-demand, particularly those with high fixed costs, where a sharp drop in advance payments or a sudden reduction in accounts receivable would add pressure. Some sectors such as telecommunications and utilities have historically proven resilient, but idiosyncratic stresses could arise such as difficulties in reducing large investment programs or direct exposure to the disruptive event.

**The plan crashes corporate bond markets---increased union power in bankruptcy makes restructuring less efficient and more likely to fail.**

Murillo **Campello et al. 18**, Campello Johnson Graduate School of Management Cornell University, Jiaping Qiu DeGroote School of Business McMaster University, Janet Gao Kelley School of Business Indiana University, Yue Zhang Universite Catholique de Louvain, “Bankruptcy and the Cost of Organized Labor: Evidence from Union Elections,” The Review of Financial Studies, Volume 31, Issue 3, March 2018, Pages 980–1013, https://doi.org/10.1093/rfs/hhx117

Despite their declining prominence, labor unions still shape workers’ participation in corporate activity. Over eight million private-sector workers in the U.S. today are represented by unions and of the largest 100 industrial firms, 33 have a unionized work force. Unions are known to use collective bargaining power to protect workers’ interests such as wages, health care, and job security (Freeman (1980) and Lewis (1986)), but less is known about the role they play in bankruptcy. At the time when workers’ investment in firm-specific human capital is most threatened, the U.S. Bankruptcy Code only safeguards wages and benefits for work already performed.1 To protect their members’ long-term interests, unions must become active parties in bankruptcy states (Haggard (1983)).

Unions are able to protect their members’ interests in several ways in bankruptcy and this paper shows that worker unionization bears significant wealth consequences for other stakeholders of the firm. As recognized creditors, for example, unionized workers may be eligible to seats on unsecured creditors’ committees under Chapter 11.2 Those committees are favored by the courts and have broad powers to (1) formulate reorganization plans, (2) request the replacement of managers, (3) block asset sales, and (4) move to convert the case into Chapter 7. Non-unionized workers with separate, small claims are not eligible to seats on creditors’ committees.3

Beyond receiving debtor-like recognition under Chapter 11, unions resort to other tactics to empower workers in bankruptcy. They organize strikes, boycotts, and public denouncements with the goal of forcing managers to acquiesce to their demands, so as to avoid disruptions that invite creditor control (Atanassov and Kim (2009)). When convenient, unions use their leverage in court so that bankruptcy proceedings allow for disruption of absolute priority rules (APR), whereby unsecured creditors’ claims lose seniority (Adler (2010)). Unions can also make bankruptcies last longer, using the courts to force parties into repeated, costly negotiations over workers’ demands. In securing continued employment for their members, unions often favor inefficient reorganizations in lieu of liquidation (Korobin (1996)). This is a key concern since firms that emerge from reorganization often re-enter bankruptcy, as unions resist asset sales and worker layoffs.

We study the impact of worker unionization on corporate creditors by looking at the price reactions of publicly traded bonds to union elections. Bond prices represent a unique value metric with which to gauge the impact of unionization onto financial stakeholders of the firm. Unlike other creditors (e.g., banks and syndicated lenders), it is difficult for investors of diffusely held bonds to renegotiate with borrowers. Bond investors, instead, dispose of their securities in the market in response to innovations to the expected value of their claims. Given the concave structure of bond payoffs (capped at the issue face values in non-bankruptcy states), bond prices are sensitive to expected losses in bankruptcy states. In particular, as their claims are senior, yet unsecured, bondholders’ expected wealth declines sharply in the face of high bankruptcy costs.4 Deviations from an orderly bankruptcy process will increase expected bankruptcy costs and lead to declines in the secondary market price of corporate bonds.

Union elections are conducted through secret ballot voting. Once a union wins over 50% of the workers’ votes, it attains legal recognition. Union rights are protected by the National Labor Relations Act and a successful election significantly increases the bargaining power of workers. Naturally, both the occurrence and the results of union elections are influenced by a number of factors. As such, the average union-win firm might differ from its average union-loss counterpart on several dimensions (both observable and unobservable). To identify our tests, we resort to a regression discontinuity design (RDD) that exploits local variation in the vote share of elections that can lead to discrete shifts in union legal status. In short, our tests contrast bond price reactions to closely won union elections with bond price reactions to closely lost union elections. Workers in close-win elections gain legal representation status while those in close-loss elections do not; yet firm characteristics and workers’ support for unions are ex-ante similar across the two groups. Given the nature of the voting process, it is unlikely for individuals or firms to precisely anticipate or manipulate the outcome of close union elections. Under these regularity conditions (which we verify in the data), relative differences in bond price reactions to close union election results can be plausibly attributed to the effect of unionization.

We conduct our analysis on a sample of 721 bond issuers witnessing worker unionization attempts between 1977 and 2010 using records from the National Labor Relations Bureau (NLRB). In short, our tests show that worker unionization negatively affects the wealth of senior, unsecured creditors. Results from RDD estimations imply that closely won union elections lead to a negative 210 (470)-basis-point average cumulative abnormal return (CAR) over a 3-month (12-month) time window.5 Closely lost elections, in contrast, are associated with economically insignificant CARs.

From a pricing perspective, the decline in bond values that we report could arise from increases in default risk or in bankruptcy costs. We next look for evidence of those effects in our data. DiNardo and Lee (2004) find no relevant impact of worker unionization on firms’ profitability or survival rates, implying negligible changes in firms’ default risk following unionization. Consistent with those authors’ results, we find no evidence that close union winners perform worse, become more likely to enter distress, or are more likely to file for bankruptcy than close union losers for several years after the vote.

We then set out to investigate the effects of unionization on bankruptcy costs. This is a difficult task and our analysis is limited by the fact that we focus on explicit bankruptcy costs. The examination necessitates data from actual bankruptcy events and we first expand our dataset to include information from the UCLA-LoPucki bankruptcy database. In this investigation, we use non-local linear regressions to compare the duration, costs, and outcomes of court proceedings across bankrupt firms with unionized workers and those without. We find that unionized firms experience more prolonged court proceed ings and are also more likely to go through inefficient reorganizations, as evidenced by a higher likelihood of emerging from bankruptcy and refiling for bankruptcy shortly thereafter. Unionized firms are also more likely to reorganize under debtor-in-possession (DIP) financing.6 In addition, firms with labor unions incur significantly higher expenses and fees paid in bankruptcy court. The results we report are consistent with the notion that unionization is associated with higher in-court bankruptcy costs. Admittedly, nonetheless, these tests could allow for a non-causal interpretation.

We thus set out to more granularly identify the welfare costs of labor unions in bankruptcy court by exploiting statutory variation in the number of seats assigned to unions on unsecured creditors’ committees (UCCs). Section 1102(a) of the Bankruptcy Code charges the U.S. Trustee with the duty of organizing a committee composed of the largest unsecured creditors of the bankrupt firm (including both unionized workers and bondholders). Following this guideline, the Trustee shall assign union representatives to seats on UCCs if they represent labor claims whose amount ranks among the largest liabilities of the firm. It is difficult to ascertain and calculate the claims of various corporate creditors, and as a result there is considerable degree of variation regarding the number of UCC seats eventually assigned to unions — seats that come at the expense of other unsecured creditors. We use this source of variation to gauge the marginal effect of unions’ empowerment in bankruptcy court onto bondholders’ wealth in bankruptcy. We collect information on the composition of UCCs of firms filing for bankruptcy between 1988 and 2010 and combine it with Moody’s data on in-court loss given default (LGD) rates. Our tests show that bondholders’ losses monotonically increase with the assignment of seats to unions on unsecured creditors’ committees. Notably, the LGD rates of secured creditors on the same firms are found to be insensitive to the number of UCC seats assigned to unions.

We also exploit firm and union heterogeneity in our RDD framework to help characterize how unionization affects bond values through expected bankruptcy costs. First, we compare subsamples of financially distressed and financially healthy firms, expecting bond price reactions to news of unionization to be particularly pronounced for firms in distress. We consider several measures of financial distress, including Altman’s Z-Score, Ohlson’s O-Score, Merton’s distance to default, as well as Moody’s credit ratings. Consistently across all measures, RDD results show that unionization has a much greater impact on the bonds of distressed firms. We also look at the funding status of firms’ pension plans. Unionized workers’ pensions are entitled to the same (high) priority assigned to their wages in bankruptcy. As such, underfunded plans will aggravate bondholders’ expected bankruptcy costs. We partition our sample based on firms’ pension funding status and find the effect of unionization to be significantly stronger for firms with underfunded plans. Finally, we examine the argument that the value impact of unions is related to their bargaining powers. The adoption of right-to-work (RTW) laws by some state legislatures allows non-union workers to enjoy the benefits of collective bargaining without paying union dues. These laws constrain unions’ financial resources, diminishing their powers (Holmes (1998)). Partitioning our sample according to whether a union election is held in a state with RTW laws, we find that the negative impact of unionization on bond values is much weaker in states with RTW laws in place (where unions are weaker).

There is a growing literature on the interplay between human capital and corporate financing. Papers in this literature often focus on the effect of labor force bargaining power (e.g., union coverage) on firms’ leverage ratios. Studies such as Bronars and Deere (1991) and Matsa (2010) document a positive relation between labor power and leverage (see Dasgupta and Sengupta (1993) and Perotti and Spier (1993) for theoretical models). The underlying theme of this stream of work is that firms increase their leverage as a way to enhance shareholders’ bargaining power over the labor force.7 Other studies propose a different argument: firms may reduce leverage to preserve workers’ human capital. Berk et al. (2010) propose a theory in which firms’ leverage is influenced by the higher wages workers demand in exchange for exposure to job loss in default states. Along this view, Simintzi et al. (2015) show that firms in countries with higher union coverage have lower leverage (see also Ellul and Pagano (2017)).

Our analysis relates to the existing literature in that our results speak to conflicts between labor and suppliers of financial capital to the firm, creditors in particular. As unionization empowers workers by preserving their human capital in default states, “displaced creditors” (unsecured bondholders) observe a change in the value of their claims. Our paper on union voting and bond price dynamics differs from existing studies in important ways, nonetheless. While most previous studies build on contrasts between unionized and non-unionized firms (regardless of a vote occurring or its outcome), our contrasts focus on firms in which workers attempted to unionize. By the nature of its test design, our study may not rule in or rule out existing views on the relation between labor and leverage ratios, as the bankruptcy dynamics that we consider do not apply to the entire schedule of debt contracts in firms’ balance sheets. We can only speak to the pricing of bonds, the claims held by creditors that are displaced by unions under the U.S. Bankruptcy Code.

**Spiking yields set off a corporate debt bomb in 2026---causes systemic crisis, bank failures, and 60+% economic contraction.**

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Corporate Debt Wall and Impact on Margins

Over $2.5 trillion of U.S. corporate debt matures before the end of 2027. Seven hundred billion is due in 2025. More than $1 trillion is due in 2026. Global corporate debt maturities peak at $2.78 trillion in 2026, according to S&P Global.

The coupon shock is similar to Treasuries but more severe for lower-rated issuers. The median coupon for BBB-rated bonds maturing in 2025 was 3.8 percent. Refinancing will require yields of 5 to 6 percent. This is a 120-180 basis point spread increase on the coupon. For a company borrowing $1 billion, this translates to $12-18 million in annual incremental interest cost.

For S&P 500 companies, the result will be slightly tighter margins and probably a valuation reset. It is the smaller, unprofitable companies that are in big trouble, in my opinion.

U.S. high-yield debt trades with credit spreads at 315 basis points. Historically, this is a warning sign of credit stress during slowdowns. The recipe is set: higher refinancing costs, lower revenues, compressed margins, and rising defaults on new loans made at higher rates.

Profit margins already face headwinds. Consumers are squeezed. Delinquencies on auto loans are at 5.1 percent, the highest outside the Financial Crisis and COVID. When consumers default, they spend less. When they spend less, companies sell less. When companies sell less, margins compress even before the debt refinancing cost hits them.

Small companies without a strong private lending relationship face a massive problem refinancing in the next few years, in my opinion, again, unless there is enough QE fast enough. With the run-up in the Russell 2000 recently, it pays to be very careful of company-specific risk. And I say that as a very regular small-cap investor for the past 25 years.

I think IWM is heading towards lower support levels, perhaps all the way to the solid red line in the next year or three.

Can IWM break higher towards $300? Certainly, markets can be irrational for long fits of time. That is why I maintain some catalyst driven stock positions, but would not touch IWM with a ten-foot wallet.

Corporate debt trends are a harbinger of stock market volatility looming if history is a guide.

Tariffs Are Weird

Tariffs have not had the inflationary impact that many supposed. The idea about tariffs raising prices is not theoretically wrong; however, inventory and front-running offset potential price increases. As supply chains move, the inflationary impact would dissipate anyway, most likely.

Think "long and variable time lags." Atlanta Fed President Raphael Bostic said American firms reported that 40 percent of their unit cost growth in 2025 and 2026 comes from tariffs. How does that play out?

Where tariffs could cause a real problem, though, is if supply chains do not build fast enough and we instead see an economic slowdown for any number of reasons already discussed and other potential reasons.

Recessions are deflationary, and we are seeing a large part of the non-AI related economy suffering right now. I do not think we should dismiss the volatility in prices that could be coming, in both directions, sequentially and differently depending on sector, service and product. I think we are likely to have a very mixed bag the next several years.

Beyond tariffs, the Trump Administration has floated a number of policy ideas, edicts, and executive orders that are too many to cover today. But, I would simply say that certain ideas, while sounding good in populist messaging, might not have the intended impacts.

Japan Matters

I think the international macro to watch most is Japan. They are the 4th largest economy in the world, and they are facing fiscal and monetary issues similar to what the U.S. has coming as Boomers retire, but they start from a low resource position and growing competition for their manufacturing. If you think American issues are severe, Japan seems worse to me.

Japan's government budget for fiscal 2026 is expected to exceed 120 trillion yen, surpassing the current record of 115.2 trillion yen from fiscal 2025. Debt-servicing costs are expected to hit a fresh record, surpassing 28.2 trillion yen for the current fiscal year.

Half of the new spending will be funded by new bond issuance. Japan's deficit-to-GDP ratio will worsen to 3.2 percent in 2026 and 3.7 percent in 2027, according to forecasts. They are trying to do that without being the global reserve currency.

The Bank of Japan is reducing its monthly purchases of government bonds. Beginning next quarter, purchases will fall from 3.705 trillion yen to 3.3 trillion yen. This is the central bank scaling back its support of the government bond market, QT, aka, Quantitative Tightening, precisely when the government is issuing more debt. Think about 2022 in the U.S., then add a multiplier.

CGTN reported that Japan's debt-servicing costs for interest payments have risen to 28.2 trillion yen annually, further widening fiscal imbalances and amplifying financial risks. With outstanding government debt exceeding 1,300 trillion yen, every one-percentage-point rise in interest rates raises annual interest payments by more than one trillion yen. Again, they are doing this without being the global reserve currency.

Worsening inflation from yen depreciation. Higher prices are reducing household purchasing power. The government was forced to issue even more debt to support households. Rising rates are crushing household finances with mortgage payments and forcing further rate hikes from the Bank of Japan to stabilize the yen.

It's a potentially devastating cycle that could have a global impact due to all the securities tied to Japan and Japanese-influenced financing.

The parallel to the U.S. is obvious. The U.S. is on a similar trajectory. The only advantage the U.S. has is reserve currency status. That advantage erodes if fiscal discipline is abandoned into the Boomer retirement, which comes with major societal expenses.

Japan teaches us how this ends: trapped in deflation, not inflation, with structurally unsustainable debt ratios.

Interestingly, I do think there is a specific fix for the United States that involves a "lockbox." I'll discuss that another time.

International Investors Will Impact Stocks Too

U.S. stocks have seen a massive surge of investment from international investors since Covid. Money printing, aka QE, has clearly been a catalyst for stock buying. I have posted Apollo Global data about that a few times.

The chart below, I think, looks nice on first glance, but I would suggest looking at the image I put below it.

I would suggest that international investors have a level of sophistication at least similar to U.S. accredited investors. And, we should remember, a lot of that money is institutional.

In an era where budgets and pensions (which a lot of the rest of the world still has) are facing crunches, a sell-off, or at least a flattening of international demand for U.S. assets, I think, is likely.

Again, I point to the midterms. You can rebel against the idea that there are political motivations for international investors to sell, but I think that is naive.

I think that international investors can be thought of as marginal pricing power in the stock market. Remember your lessons on economics. Marginal pricing pressure is the last dollars in or out. What if international demand for U.S. stocks flattens or falls? The answer is obvious in my mind.

Stock Market Scenarios

I'm going to cover my 3 potential scenarios for the stock market this year. And it really applies to the next few years since I think we have entered an overvalued period full of "unknown unknowns."

Valuations are high on the S&P 500 (VOO). By now everyone should know that.

Sure, there's an argument that corporate profits are high and valuations should be higher. But consider this: if debt has a problem, then corporate profits have a problem. There's a massive correlation between debt, corporate profits, and stock prices.

Understand that chart. As public debt increased, it flowed to corporations. Is that really in all of our best interests at those extremes?

That means there is a risk that the S&P 500 (SPY) could fall dramatically or have an extended period of low returns. I'm in both camps, though there are multiple ways things can play out, and nobody can tell you which ahead of time with any precision. The best we can do is be prepared to respond in real time and maintain the risk levels appropriate for our own finances.

In my scenarios to follow, I break each piece—bullish, base, and bearish—into 20% pie slices. The one I plan for is the one that is most likely, which I put at 60%, like a good poker player does. The others I try to be ready for and mitigate my exposure accordingly.

The Bullish Blowoff Top Scenario

If policy works well and liquidity does not fall, then GDP growth above 3% could happen. If it does, then I would expect bullish animal spirits to surge again.

In this scenario, credit conditions ease. Liquidity expands. Defaults remain contained. The S&P 500 rallies to $7,500 to $8,500 by year-end. Valuations expand further. This requires not just economic acceleration but deliberate policy choice to prioritize asset inflation over currency stability.

This scenario works if AI adoption is as transformative as expected and is quick about it. If the productivity gains are real and material. If management teams deploy capital efficiently. It is possible. But it requires execution and a benign policy environment. History shows both are rare.

I put the bullish blowoff top scenario at 20%.

The Base Scenario Bear Market Scenario

Economic growth meanders at 1.5 to 2.0 percent as AI slows and the rest of the economy is flattish.

In this scenario, the Fed delivers one or two 25-basis point rate cuts for a total of 50 basis points in H1 before the change in Federal Reserve Chairman. This is insufficient to materially ease financial conditions given the debt wall. It thwarts the effectiveness of the U.S. Treasury rolling debt in any attempt to meaningfully save interest expenses.

In this case, the Treasury maturity wall pressures long-term yields higher as foreign buyers remain flat to diminished. Corporate hiring slows due to uncertainty around tariffs and geopolitical risk. The stock market corrects 20 to 30 percent, testing the October 2023 lows near 4,500 to 5,500 on the S&P 500.

This is a base case because it fits historical precedent. Late-stage bull markets correct 20 to 30 percent when valuations are extreme and liquidity inflects. The correction flushes momentum speculators and resets valuations closer to historical norms of 18-20x earnings.

As I believe "all roads lead to QE" there is a rebound at some point. Unless the next scenario is playing out, I expect to be a heavy buyer of quality S&P 500 stocks in a "run-of-the-mill" 20-30% bear market.

I assign a 60% probability here.

The Bearish Scenario Financial Crisis

The convergence of Treasury refinancing pressure, CRE defaults, Fed leadership transition, and foreign capital exodus creates a credit event severe enough to break market confidence.

A major regional bank fails, or possibly even one of the large national banks if we see a full-blown crisis. I am on record as saying I do not trust Citibank's (C) underwriting. In this scenario we see REIT defaults as the CRE crisis accelerates.

The Fed cannot mount a credible rescue without announcing massive QE, which signals loss of independence and commitment to the currency. However, the administration, committed to fiscal responsibility, attempts regulatory forbearance rather than decisive intervention. A quasi-form of austerity with deferred debt emerges. Credit markets freeze, and we get a deflationary event.

The S&P 500 collapses 40 to 60 percent, falling to $3,000 to $4,000.

This scenario reflects genuine tail risk if policy errors accumulate faster than the Fed can respond. It happened in 2008. It almost happened in March 2020 before they overreacted. Either can happen again.

I have the odds of this at 20%. That is high for me. Usually, this scenario gets "almost zero chance." I have not seen the potential for this scenario so high since 2007.

**Crash causes global nuclear war.**

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NEW YORK – As we enter the second quarter of the twenty-first century, slow economic growth will remain the world’s most persistent challenge, transcending national borders and affecting developed and developing countries alike.

The economies of the United States, the European Union, and Japan are all projected to grow by less than 3% per year for the foreseeable future – the threshold needed to double per capita income within a generation (25 years). At the same time, large emerging economies like Brazil, Argentina, and South Africa are also expected to experience sluggish growth over the next decade.

While total global GDP has increased to $110 trillion, progress remains unevenly distributed, threatening to erode living standards. Worse, the world economy faces powerful headwinds that could stifle growth, innovation, and investment, triggering political and social instability.

Governments and business leaders must adjust their models and assumptions accordingly. In the face of significant policy shifts, investors will need to rethink their investment and allocation strategies to navigate an era defined by uncertainty and uneven growth.

Looking ahead, eight risks to global GDP growth stand out: geopolitical fissures; divisive domestic politics; technological disruption and the rise of artificial intelligence; demographic trends; rising inequality between and within countries; natural-resource scarcities; government debt and loose fiscal policies; and deglobalization. Taken together, these headwinds will be a persistent impediment to economic growth in the coming years.

No World Order

The first drag on global growth is the escalation in geopolitical tensions – particularly among the US, China, and Russia – compounded by additional threats from Iran and North Korea. As the rift between developed and developing economies widens, developing countries are increasingly joining economic alliances like the BRICS bloc, which expanded from five members at the start of 2024 to nine by the end of the year. In the near term, there is a growing risk that this geopolitical tug-of-war could escalate into an all-out military conflict.

Over the past 50 years, the world economy has gone from being a positive-sum game to a negative-sum game. The positive-sum era, driven by economic and global cooperation, reached its zenith during the Washington Consensus period, which was highlighted by the fall of the Berlin Wall in 1989 and China’s accession to the World Trade Organization in 2001. But following the 2008 financial crisis, the world entered a negative-sum period, marked by declining growth, intensifying competition, and rising international tensions, further heightened by the COVID-19 pandemic, Russia’s invasion of Ukraine, and the Gaza War.

Widening geopolitical fissures have laid bare deep vulnerabilities. China, for example, is one of America’s largest foreign creditors, holding more than $770 billion in US Treasuries. This gives it significant leverage over the US, whose policymakers increasingly regard it as a political and ideological rival. Against this backdrop, the intensifying race between China and the West for technological dominance in AI, quantum computing, and semiconductors has fractured the digital economy, giving rise to a balkanized “splinternet.”

As decades of multilateral cooperation give way to economic fragmentation, new cross-country alliances have weakened the US-led international order and the Bretton Woods institutions, such as the World Bank and the International Monetary Fund. The expanded BRICS bloc – led by Brazil, Russia, India, China, and South Africa – is the most significant of these alliances, representing more than 40% of the world’s population and 36% of global GDP.

Meanwhile, so-called “swing states” like Turkey, Saudi Arabia, and other Gulf Cooperation Council countries are reshaping global trade routes, reconfiguring supply chains, and redirecting investment flows, altering the distribution and pricing of key commodities such as foodstuffs and critical minerals.

Beyond stifling global GDP growth, these geopolitical rifts are hindering collective efforts to tackle climate risks, as developed and developing economies remain deeply divided over the urgency, scope, and aggressiveness of the regulatory and policy reforms required to combat climate change and advance the clean-energy transition.

Populism and Domestic Politics

Many advanced economies are also grappling with deepening political polarization at home. US President-elect Donald Trump’s return to the White House – much like Brexit and Trump’s first election victory in 2016 – heralds a period of widespread uncertainty and major political transformations.

Amid these populist gales, developed economies’ budgets are increasingly strained by expanded welfare programs. In 2022, for example, the EU spent €3.1 trillion ($3.3 trillion) – 19.5% of its GDP and nearly 40% of its total expenditures – on social protection.

As demands on government budgets grow, worsening fiscal positions will make it increasingly difficult for many countries to provide essential public goods like health care, education, and infrastructure. The resulting fiscal pressures will likely deepen polarization and lead to more policy volatility.

**Refinancing key to chemical sustainability---extinction!**

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Introduction

Chemistry is the study of matter – it is the study of everything. The periodic table contains the ingredients for making just about anything. This is also reflected in our economy: More than 95% of manufactured products rely on chemicals (European Commission, 2017). The European Union recognises the sector as an enabling industry which may play a “pivotal role” (European Commission, 2023a).

Yet at the same time, the chemical sector is the single biggest industrial energy consumer (IEA, 2023). The emissions stemming from the sector’s use of heat, steam, and power for compression and cooling account for roughly half of its total fossil fuel related emissions. The other half is linked to using fossil fuels as input to chemical reactions, for products such as plastic or fertilizer. Overall, the chemical sector takes third place in the ranking of industry subsectors when it comes to direct carbon dioxide emissions.

Given the urgent need to reach net zero and commitments such as the 2015 Paris Agreement and the EU Green Deal, the pressure for the chemical industry to decarbonise is mounting. In business terms, this means that so called transition risk, one form of climate risk, is building up. To demonstrate its materiality, looking at cost originating from the European Union Emission Trading System (EU ETS) is telling: Forecasts see costs quadrupling by 2030 (ICIS, 2021). Here, very obviously, reducing emissions is not only doing good for the planet, but also has direct financial benefits. Still, some chemical companies choose to further deepen their ties with fossil fuels by buying petrochemicals business from energy majors who are selling the assets as part of their transition efforts (Bousso, 2020; BBC, 2017) and continue to invest in them (Reuters, 2022; Ineos, 2018).The International Energy Agency’s (IEA) Fatih Birol has called the petrochemicals business a “key blind spot” while examining their future (IEA, 2018). The IEA sees the sector not on track, stating that carbon dioxide intensity has been stable over recent years for primary chemicals, yet the et Zero Emission by 2050 Scenario requires an 18% absolute emission reduction compared to 2022 by 2030, despite increasing production (IEA, 2023). This means decoupling emissions from production is urgently needed.

Sustainability and the chemical sector

“Chemistry is, well technically, chemistry is the study of matter. But I prefer to see it as the study of change” (IMDB, 2008)

And indeed, the chemical industry could be a key driver for transforming the real economy. In the TV show “Breaking Bad” Walter White goes one step further than portraying chemistry as the study of everything, by adding a forward-looking perspective to it. Given that chemical products are the basis for nearly all manufactured products, they need to be accounted for under so-called Scope 3 emissions for the respective manufacturers. The Greenhouse Gas Protocol, the most common emission classification system for corporate emission reporting, distinguish three scopes: Direct emissions (Scope 1), indirect emissions from purchased energy (Scope 2) and lastly emissions outside of a companies own boundaries, related to its value chain (Scope 3).

Up until today, most efforts and pledges revolve around Scope 1 and 2, often dubbed core emissions. Yet there is increasing attention shifting towards Scope 3[1] – not the least because they make up the majority share of all emissions and in fact the vast majority for most sectors (Hoepner & Schneider, 2022a). Indeed, Deloitte specifically lists sustainability as their number 1 trend and specifically mentions the carbon footprint of supply chains as their top 3 for the chemical sector (Deloitte, 2022). The chemical industry is in a unique position to drive major supply chain decarbonisation and thereby support Scope 3 emission reductions globally. Moreover, the transition involves a range of opportunities for chemistry, including batteries but also ammonia for shipping.

https://www.high-endrolex.com/5

Thus, it is little surprising that firms in the sector signal their sustainability ambitions via bold claims in their corporate reporting and public statements. Table 1 gives an overview of different sustainability statements made by senior executives of firms from the sector. It becomes obvious, that statements vary in their level of ambition but also scope and time perspective. It is important to recognise differences in forward-looking (plans and pledges) and backward-looking (actually achieved performance, that can be evidenced) claims. Some firms may choose to highlight their standing relative to their peers, others make absolute claims. The distinction between relative emission targets, in the form of intensities (ie emission reduction per revenue or unit of output) and absolute ones is likewise crucial.

Yet any claim needs to translate into tangible actions, otherwise firms run risk of engaging in greenwashing. The table above is part of the GreenWatch[2] database, which compares corporate claims across sectors with actual emission performance. For alignment with the Paris Agreement and the 1.5°C target absolute emissions must be reduced 7% year on year. Anyone making bold sustainability claims should at least meet this basic metric. At GreenWatch, Artificial Intelligence (AI) is used to classify sustainability claims in terms of their boldness and then compared to absolute core emission reductions. A differentiation between no claim, a moderate claim and a bold claim and between an emission reduction in line with the Paris Agreement, a weak emission reduction and an emission increase is made. Importantly, carbon offsets are not factored in[3]. Should a company make a strong sustainability claim while in fact increasing their absolute emissions, a high likelihood of greenwashing is assigned.

Today many forms of greenwashing have developed. Given the obvious commercial incentive to be perceived as green, sophisticated strategies to mislead customers and investors have evolved. PlanetTracker portrays greenwashing as a beast with many heads in their Hydra report. The analysis outlines six distinct types of greenwashing (PlanetTracker, 2023, p.3-8):

“Greencrowding is built on the belief that you can hide in a crowd to avoid discovery; it relies on safety in numbers. If sustainability policies are being developed, it is likely that the group will move at the speed of the slowest.

Greenlighting occurs when company communications (including advertisements) spotlight a particularly green feature of its operations or products, however small, in order to draw attention away from environmentally damaging activities being conducted elsewhere.

Greenshifting is when companies imply that the consumer is at fault and shift the blame on to them.

Greenlabelling is a practice where marketers call something green or sustainable, but a closer examination reveals that their words are misleading.

Greenrinsing refers to when a company regularly changes its ESG targets before they are achieved.

Greenhushing refers to the act of corporate management teams under-reporting or hiding their sustainability credentials in order to evade investor scrutiny.”

A lot of the greenwashing that is happening in the market is not explicitly illegal and hard to proof. But climate litigation is growing in momentum and posing a real risk to climate offenders. And these lawsuits have very material financial risk for the respective companies: Sato et al. (2023) find that climate litigation filings or unfavourable court decisions on average lead to reduction in firm value by -0.41%. These lawsuits can also result in transparency and climate action obligations (Weller and Tran, 2022).

While climate litigation for the moment focuses on energy firms and the carbon majors, the chemical industry is also subject to substantial pressure due to environmental concerns. Pollution prevention is an additional key environmental objective as recognised by the European Commission (European Commission, 2023b). Around 40 laws regulate chemicals in the EU, which reflects ongoing concern among EU Citizens: 90% of Europeans worry about the impact of chemicals in everyday products on the environment and 84% about its impact on their health (European Commission, 2023c).

One class of chemicals has recently received considerable amounts of attention[4]: Per- and polyfluoroalkyl substances (PFAS), commonly referred to as “Forever Chemicals” which are used when manufacturing fluoropolymer coatings and products that resist heat, oil, stains, grease, or water. The EU is taking actions to phase out their use where it is not essential (European Commission, 2023d). American multinational 3M announced the end of their PFAs production for 2025, which will incur initial cost of up to $1 billion and more later on. Yet longer-term legal liabilities are estimated to be over $30 billion This compares to the roughly $1.3 billion in annual sales generated from PFAs at 3M (Kary & Beene, 2022). Needless to say, PFAS litigation is not limited to 3M. DuPont and Chemours settled to pay $670 million in a lawsuit filed by thousands of people in Ohio (Maher & McWhirter, 2017) and $1.18 billion following complaints from drinking water providers (Flesher, 2023). In total, DuPont has been named in over 6000 PFAS related lawsuits (ChemSec, 2022). Other cases involve Tyco Fire Products LP and Chemguard Inc (SEC, 2020).

Following the idea of a carbon footprint, NGO ChemSec published chemical footprint for the 54 biggest chemical firms. In 2022, only four of them published a strategy to phase out hazardous chemicals from their product portfolios (ChemSec, 2022).

This risk is not going unnoticed by investors. In November 2022, 47 asset managers with a combined $8 trillion assets under management issued a call to phase-out PFAS. Besides the financial and litigation risk, the call cites the danger it poses to future generations (ChemSec, 2022).

Given that the most recent update on planetary boundaries established that the safe boundary for chemical pollution, “novel entities”, has been crossed (Richardson, et al., 2023), the pressure can only be expected to increase going forward.

Defining a path to sustainability

While there are many challenges to be overcome, most solutions don’t require major breakthroughs. For example, it is already feasible to produce plastic bottles with emissions-free chemicals at a price increase of those bottles by 1% (Energy Transition Commission, 2020). Overall, Deloitte postulates that 15 technologies can abate 90% of industry emissions (Deloitte, 2022).

Still, developing solutions at the scale and speed we need require significant investments. While there is growing investor appetite, it creates the need to be able to distinguish credible transition plans from greenwashing to avoid capital misallocation.

The first step is defining what green or sustainable really means. That is exactly what the EU Taxonomy for Sustainable Activities sets out to do (European Commission, 2020). The EU Taxonomy focuses on environmental sustainability, covering six objectives: Climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems. By design, all environmental objectives are equally important. The EU Green Taxonomy is designed to act as a market transparency tool and transition enabler. It is rooted in EU law as part of the EU sustainable finance framework; the Taxonomy Regulation went into force in July 2020.

Technically, the EU Taxonomy allows to assess the sustainability of economic activities, which means that entities can be assessed as a sum of their often numerous activities. It is important to note, that Taxonomy reporting will be mandatory for a large number of firms, but that does not mean that companies must comply with the criteria nor that investors must invest in a specific manner. Taxonomy reporting is carried out in terms of revenue, operating expenses (opex,) and capital expenditure (capex). If an economic activity meets all the criteria set out in the regulation, it is considered “aligned”. A company may for example report that it generates X% of its revenue from taxonomy-aligned activities or that it spends Y% of its capex on taxonomy-aligned activities.

The first step to alignment is checking whether an activity is included in the Taxonomy regulation, termed “eligibility”. If an activity is not (yet) included in the EU Taxonomy, there are no criteria to compare against and an activity cannot be aligned. Activities not covered remain out of scope for now. Once eligibility is established for an activity, three levels must be passed in order to achieve alignment. First, substantial contribution to at least one of the six environmental criteria must be proven by complying with activity specific criteria. Next, “Do No Significant Harm” (DNSH) criteria must be passed for all the other environmental objectives of the EU Taxonomy. This is to ensure that while the activity may support progress in one area it does not jeopardize achieving the other. Lastly, even though the EU Taxonomy focuses on the environment, minimum social safeguards must be met. In total, the process therefore encompasses four stages that an activity must pass to demonstrate EU Taxonomy alignment: Eligibility, substantial contribution to at least one objective, no significant harm to the other objectives and meeting minimum social safeguards. It is noteworthy that “not aligned” does not mean harmful, it simply equals not meeting the criteria to be considered substantially contributing to environmental objectives.

The European Commission offers the EU Taxonomy Compass tool for easy access and navigation of criteria. For the chemical sector, a range of activities is eligible. Figure 1 shows the substantial contribution criteria for climate change mitigation from the EU Navigator for the manufacture of organic basic chemicals. Other examples include the manufacture of plastics in primary form, the manufacture of soda ash, chlorine, aluminium, or ammonia.

In advance of the pollution prevention delegated act for the EU Taxonomy being published in 2023, the Investor Initiative on Hazardous Chemicals (IIHC), representing some of the biggest institutional investors, published an open letter addressed to the European Commission calling for robust chemical criteria (IIHC, 2023). Lobbying to weaken policy is found across sectors. For example, in the UK, lobbying efforts have been noted on fracking and exempting the chemicals sector from climate taxes (ClientEarth, 2023). InfluenceMap compiles a lobbying scorecard by analysing engagement from corporations and industry associations on climate policy. Of the 25 assessed corporations none got the highest score A, only one firm was scored B (InfluenceMap, 2023). Naturally, the EU is not alone in creating a classification system for sustainability in this regard. Indeed, in 2022 around 20 countries were at different stages of developing their version of a taxonomy. These vary widely in scope, design, and level of ambition. A noteworthy exception among the 20 countries is the US. Other large players such as China, Russia, Brazil, Canada, and Australia as well as smaller players such as the Dominican Republic or Mongolia have been more proactive.

Facilitate transition: Sustainable Finance

Corporate net zero pledges for 2050 are becoming popular; globally around 70 chemical firms have set targets (Deloitte, 2022). The UN Race to Zero Data Explorer offers a concise platform to explore the net zero targets of 500 firms globally. The tool allows to view the year when a firm aims to reach net zero and distinguishes between absolute emissions and emission intensities. A net zero emission intensity target takes the form of a “per unit” pledge, for example revenue or product. This approach may lead to a firm’s absolute emissions increasing despite intensities decreasing if the company grows. From a climate science perspective, we need absolute net zero in order to halt global warming.

Besides the pledge, the tool also contains information on whether the firms that pledge do have a transition plan on how to achieve their goals. Additionally, it gives an indication of progress on proceeding with the plan by showing emission reduction trends for Scope 1 and Scope 2 emission, and how many Scope 3 emission subcategories are disclosed. Alignment numbers for revenue, capex and opex are available as well.

While transition plans are needed to understand how a company envisions to be part of the future net zero economy, forward looking plans are no guarantee. Greenrinsing (PlanetTracker, 2023), where a firm silently drops a target which it previously published, is unfortunately emerging as a greenwashing practice. Only relying at backwards- looking measures such as past emission reductions likewise is not optimal for gauging future performance.

A big concern for both, companies with robust transition plans is therefore how to credibly communicate these. On the flipside of the coin, investors looking to invest in firms that will be profitable in a net zero economy need a way to ensure investee firms indeed transition.

This is where sustainable finance can offer remedy. Different innovative financial instruments have evolved in the green and sustainable finance space. The general idea is instead of just publishing words and plans, to “put your money where your mouth is” and link financing to sustainability.

A more established instrument are green bonds, which are supposed to directly finance green activities. Academic research finds that these are considered a credible instrument to communicate commitment to the environment (Flammer, 2021). Flammer (2021) finds benefits both on the environmental side – lower emissions and higher environmental ratings – as well as on the financial side, in the form of a diversification of the investor base and more long-term ownership.

One particularly suitable instrument for transitioning is sustainability-linked debt. First it is noteworthy that the debt market has a key role to play in supporting the transition as primary market transactions occur periodically, according to refinancing cycles. This is not the case for equity, where the majority of transactions occur between investors on the secondary market. In this case, the corporate cash flow is not directly affected (Hoepner & Schneider, 2022b).

Sustainability-linked bonds (SLBs) are one type of sustainability-linked debt, which the International Finance Corporate (IFC, World Bank Group) recently called “one of the fastest-growing corners of finance” (IFC, 2023). Their unique feature is that future sustainability targets are directly linked to cost of capital through coupon step up (or down) payments. Effectively that means that a borrower commits to certain sustainability targets in the future and incurs a financial penalty when missing them. For the investor on the other hand, it means that in case the issuer does not follow through on their promise they get financially compensated. Table 2 shows an example of a sustainability-linked bond from the chemical industry.

SLBs are general purpose financial instruments and differ conceptually from green bonds, which are use-of-proceeds type of instruments. The difference in design allows sustainability-linked bonds to be applied more generally and to finance the transition of not yet green activities (forward looking Key Performance Indicators for sustainability performance). On the other hand, the proceeds of a green bond must be allocated to activities which are already green (backwards looking). This likewise means that while a SLB can be used for refinancing of any maturing security, a green bond can only refinance green activities. Overall, the hypothetical amount of issuance for SLBs is unlimited – any bond issued could be sustainability-linked – while the amount feasible to be issued as green bonds is limited to the volume of existing green activities. Other important differences include how the greenness is priced: While the Greenium for green bonds is determined in the market, SLBs have step up (or down) or penalty payments as legally enforceable covenants. Covenants are by no means a new concept in finance, predating their use in SLBs, and therefore easily applicable.

Still, in the nascent markets greenwashing concerns are not negligible. Unambitious or irrelevant targets may delay real progress. For climate change, especially in energy related sectors, all three emission scopes should be addressed. Absolute emission reductions should be prioritized over emission intensity improvements. In Signalling Theory (Spence, 1973), a signal must be costly to be credible.

Thus, imposing substantial penalties for missing targets are key. Here the devil may be in the detail: Do payments occur throughout the duration of the bond and accumulate when targets continue to be unmet or is there only a once off payment close to maturity? Ul Haq and Doumbia (2023) point out structural challenges while Erlandsson et al. (2022) offer a risk-neutral present value scenario approach for the pricing of step-down structures.

There are some support resources available to foster SLB uptake and ensure their integrity, though so far these are voluntary. For example, the International Capital Market Association (ICMA) has published Sustainability-Linked Bond Principles including an illustrative KPIs registry (ICMA, 2023). It is notable that the language around penalties for missing targets is soft and indicates optionality, despite being recognised as a key feature:

“The cornerstone of an SLB is that the bond’s financial and/or structural characteristics can vary depending on whether the selected KPI(s) reach (or not) the predefined [Sustainability Performance Target(s)], i.e. the SLB will need to include a financial and/or structural impact involving trigger event(s).“ The Climate Bonds Initiative (CBI) also issues guidance for sustainability-linked bonds as transition finance instruments (CBI, 2022a). These specifically stress the importance of strong structures around call dates and KPI observation dates.

Increased scrutiny can be observed as the sustainable debt market is maturing. This is for example evident in increasing amount of green bonds being rejected by CBI because of quality concerns (CBI, 2022b): 1 in 4 US Dollars did not meet their standards. The majority of the excluded bonds originated from China.

Yet the bond market is not the only place where sustainability metrics get linked to cost of capital. Sustainability- linked loans (SLLs) are similarly becoming popular. In 2019, specialty chemical firm Kemira agreed on three sustainability KPIs for its five year 400 mio EUR revolving credit: emission efficiency, generating half its revenue from products enhancing customers’ resource-efficiency and maintaining the highest rating from external rater EcoVadis (Kemira, 2019). Other examples of industrial firms taking SLLs include DSM, Indorama Ventures, Solvay, and Stora Enso.

The flexible design of linking capital cost to sustainability indicators naturally allows to factor in different facets of sustainability, beyond climate change mitigation. For the chemical industry, indicators revolving around recycling and pollution prevention seem sensible – a conceivable KPI could be the phase out of PFAS. The example of Lanxess’ 1 bn EUR revolving credit facility demonstrates that also social goals are feasible: Interest rates are not only linked to the successful reduction of its CO2e emissions (Scope 1) but also raising the share of women on the top three management levels (Lanxess, 2021). This case also highlights that multiple targets can easily be featured in the same sustainable debt instrument.

Even if a company does not participate in the sustainable finance market, the traditional corporate financing of a firm will also be affected by sustainability. “ESG” – the acronym for environmental, social, and governance factors – is considered by rating agencies when assessing credit worthiness (see for example Moody’s scorecard (Moody’s, 2022).

Conclusion

Overall, the chemical industry could play a key enabler role in the sustainable transition of our economy. While there are many challenges to be resolved, the chemistry underlying supply chains especially in the manufacturing industries could be the engine of innovation.

Greenwashing poses a real threat and must be managed as a risk. The underlying targets for sustainability-linked debt must be ambitious and relevant, and penalties for missing targets substantial. While the sector in the past had been “a blind spot” (Hawker, 2021) for investors, the increased interest will also bring more scrutiny. Additionally, changing regulation is adding to pressure in transition risk.

To unlock the power of the sector, significant investment is needed. Innovative sustainable finance instruments when applied appropriately could hereby be a catalyst for change. Sustainability-linked debt has successful been obtained by firms in the sector. It could be a key tool to both raise funds for the transition and credibly communicate transition plans to capital providers.

**Link – 2NC**

**1. Creditor power. CBR gives unions the right to demand a larger share of the pie during the firm restructuring process. Unions can block asset sales, control reorgs, and force payroll, which pushes the firm into more loans and creates an irrecoverable cycle of debt, that’s Campello.**

<<FOR REFERENCE>>

Despite their declining prominence, labor unions still shape workers’ participation in corporate activity. Over eight million private-sector workers in the U.S. today are represented by unions and of the largest 100 industrial firms, 33 have a unionized work force. Unions are known to use collective bargaining power to protect workers’ interests such as wages, health care, and job security (Freeman (1980) and Lewis (1986)), but less is known about the role they play in bankruptcy. At the time when workers’ investment in firm-specific human capital is most threatened, the U.S. Bankruptcy Code only safeguards wages and benefits for work already performed.1 To protect their members’ long-term interests, unions must become active parties in bankruptcy states (Haggard (1983)).

Unions are able to protect their members’ interests in several ways in bankruptcy and this paper shows that worker unionization bears significant wealth consequences for other stakeholders of the firm. As recognized creditors, for example, unionized workers may be eligible to seats on unsecured creditors’ committees under Chapter 11.2 Those committees are favored by the courts and have broad powers to (1) formulate reorganization plans, (2) request the replacement of managers, (3) block asset sales, and (4) move to convert the case into Chapter 7. Non-unionized workers with separate, small claims are not eligible to seats on creditors’ committees.3

**2. Bargaining costs. Unions force firms into costly negotiations in bankruptcy court that cause them to re-enter bankruptcy, that’s Campello.**

<<FOR REFERENCE>>

Beyond receiving debtor-like recognition under Chapter 11, unions resort to other tactics to empower workers in bankruptcy. They organize strikes, boycotts, and public denouncements with the goal of forcing managers to acquiesce to their demands, so as to avoid disruptions that invite creditor control (Atanassov and Kim (2009)). When convenient, unions use their leverage in court so that bankruptcy proceedings allow for disruption of absolute priority rules (APR), whereby unsecured creditors’ claims lose seniority (Adler (2010)). Unions can also make bankruptcies last longer, using the courts to force parties into repeated, costly negotiations over workers’ demands. In securing continued employment for their members, unions often favor inefficient reorganizations in lieu of liquidation (Korobin (1996)). This is a key concern since firms that emerge from reorganization often re-enter bankruptcy, as unions resist asset sales and worker layoffs.

<<FOR REFERENCE>>

We then set out to investigate the effects of unionization on bankruptcy costs. This is a difficult task and our analysis is limited by the fact that we focus on explicit bankruptcy costs. The examination necessitates data from actual bankruptcy events and we first expand our dataset to include information from the UCLA-LoPucki bankruptcy database. In this investigation, we use non-local linear regressions to compare the duration, costs, and outcomes of court proceedings across bankrupt firms with unionized workers and those without. We find that unionized firms experience more prolonged court proceed ings and are also more likely to go through inefficient reorganizations, as evidenced by a higher likelihood of emerging from bankruptcy and refiling for bankruptcy shortly thereafter. Unionized firms are also more likely to reorganize under debtor-in-possession (DIP) financing.6 In addition, firms with labor unions incur significantly higher expenses and fees paid in bankruptcy court. The results we report are consistent with the notion that unionization is associated with higher in-court bankruptcy costs. Admittedly, nonetheless, these tests could allow for a non-causal interpretation.

**3. Link is fast. Bondholders immediately perceive the increased risk of lending post-unionization. They’ll demand higher yield when loaning preemptively because they know in the event of a bankruptcy, they’re now more likely to lose money, that’s Campello.**

<<FOR REFERENCE>>

We study the impact of worker unionization on corporate creditors by looking at the price reactions of publicly traded bonds to union elections. Bond prices represent a unique value metric with which to gauge the impact of unionization onto financial stakeholders of the firm. Unlike other creditors (e.g., banks and syndicated lenders), it is difficult for investors of diffusely held bonds to renegotiate with borrowers. Bond investors, instead, dispose of their securities in the market in response to innovations to the expected value of their claims. Given the concave structure of bond payoffs (capped at the issue face values in non-bankruptcy states), bond prices are sensitive to expected losses in bankruptcy states. In particular, as their claims are senior, yet unsecured, bondholders’ expected wealth declines sharply in the face of high bankruptcy costs.4 Deviations from an orderly bankruptcy process will increase expected bankruptcy costs and lead to declines in the secondary market price of corporate bonds.

**4. The effect is HUGE---in just the year after the plan, bondholders expect to lose $50 million per firm!**

Murillo **Campello et al. 18**, Campello Johnson Graduate School of Management Cornell University, Jiaping Qiu DeGroote School of Business McMaster University, Janet Gao Kelley School of Business Indiana University, Yue Zhang Universite Catholique de Louvain, “Bankruptcy and the Cost of Organized Labor: Evidence from Union Elections,” The Review of Financial Studies, Volume 31, Issue 3, March 2018, Pages 980–1013, https://doi.org/10.1093/rfs/hhx117

6 A Discussion of Economic Effects

We end our analysis with an assessment of the economic magnitudes implied in bondholders’ reactions to news of worker unionization. We have shown that worker unionization leads to increased costs from in-court bankruptcy proceedings for unsecured creditors. It is important to put those costs (total bond losses and court costs) into perspective, fleshing out magnitudes and assessing the consequences they bring to workers and credi tors. Notably, the bankruptcy process allows — even if only temporarily — for workers to continue receiving wages and enjoying benefits. Continuation of employment can be seen as a wealth transfer amongst corporate insiders. This welfare effect stands in contrast to transfers from firm insiders to outside parties, such as attorneys, financial advisors, and other professionals involved in court litigation. While it is difficult to measure all of these wealth effects, our setting allows us to perform a back-of-the-envelope calculation regarding a “partial” equilibrium based on our localized estimations. This helps us tease out some of the magnitudes involved.

We start by calculating the total value loss to bondholders induced by unionization. From our estimates, a close union winner experiences a 470-basis-point decline in bond CARs over the 12-month post-election period following the union election (see Table 4). Given that the average firm in our sample has $1,087 million in bonds outstanding, this estimate translates to an average of $51 million total value loss for bondholders.

Next, we estimate bondholders’ losses that arise directly from the increases in court costs attributable to unionization. Estimates of direct bankruptcy costs range from as low as 2.8% (Weiss (1990)) to 6% (Altman (1984)) of firms’ total asset values. We choose the conservative figure of 2.8%. The estimates in column (5) of Table 7 suggest that unionization is associated with 57% higher bankruptcy costs. Accordingly, we take that unionization is associated with a higher bankruptcy cost equivalent to 1.6% of a firm’s total asset value (= 57% × 2.8%). The average firm in our sample has a total asset value of $21.5 billion; thus, we estimate that bankruptcy is likely to cost $343 million more for unionized firms (= 1.6% × $21.5 billion).

**AT: Productivity Turn – 2NC**

**The link outweighs the turn:**

**1. RISK-NEUTRALITY. Bond prices give greater weight to costs occurred in bankruptcy than the probability of bankruptcy occurring in the first place. That trumps the turn, even if they are correct.**

*The market doesn't price bonds using actuarial tables. It prices them assuming defaults happen in the worst possible states—recessions, credit crunches, systemic crises. That's why risk-neutral default probability is 12% when historical default probability is only 1.6%. Any increase in what happens during bankruptcy gets multiplied by that inflated weight. Their productivity argument operates on the wrong margin: shaving points off an already-small default probability matters less than what happens in the states where defaults actually occur.*

*Nora note:bond assessments based on magnitude not probability. you're a diversified investor. if company experiences idiosyncratic risk, if rest of holdings fine, no care much about it. care more about--"assuming there's broader econ downturn, how bad would it be within this company."*

*if aff = we reduce probably if default.*

Murillo **Campello et al. 18**, Campello Johnson Graduate School of Management Cornell University, Jiaping Qiu DeGroote School of Business McMaster University, Janet Gao Kelley School of Business Indiana University, Yue Zhang Universite Catholique de Louvain, “Bankruptcy and the Cost of Organized Labor: Evidence from Union Elections,” The Review of Financial Studies, Volume 31, Issue 3, March 2018, Pages 980–1013, https://doi.org/10.1093/rfs/hhx117

The last element we need to consider is the probability that firms default. We estimate default probabilities according to firms’ credit ratings, and we employ two measures of default. We first use historical default probabilities from Moody’s (Moody’s (2007)), which are simple statistics of past observed default events. We also use risk-neutral default probabilities, which account for investors’ risk preferences and are higher than historical occurrences. Our sample firms have an average credit rating of A3. These firms have a historical default probability of 1.6% and a risk-neutral default probability of 12%.

With these default probability statistics, we estimate an expected explicit bankruptcy cost of around $5.5 million for our sample firms under the historical default probability (= 1.6% × $343 million), a negligible portion of the $51 million total bondholder loss. Under the risk-neutral default probability, however, we expect bankruptcy costs to be $41 million (= 12% × $343 million), which accounts for a large proportion of total losses.

The estimates above point to two possible channels through which bondholders’ wealth is dissipated in bankruptcy. Modern asset pricing theory suggests that risk-neutrality underlies the calculation of bond prices (Duffie and Singleton (1999) and Elton et al. (2001)). If bond investors price their claims using risk-neutral probabilities, then our results imply that over 80% of observed losses to bond values stem from expected court costs (wealth that is in great part transferred to professionals involved in the litigation process). If one relies on historical default probabilities, on the other hand, then a plausible conclusion is that only a small percentage of bondholder losses are due to in-court expenses, and the rest of the losses are likely to be captured by unionized workers, potentially due to improved job security and preserved wages and benefits (Abowd (1989)).

7 Concluding Remarks

Using a sample of union elections spanning four decades, we find that union election victories are associated with increased bankruptcy costs, which lead to declines in bond values. As we investigate channels through which unionized labor affects bond values, we find that unionization is associated with increases in bankruptcy costs, yet no apparent changes in the probability of bankruptcy. The impact of unionization on bond values are stronger for financially distressed firms, for firms with underfunded pension plans, and in jurisdictions where unions are deemed to be better funded (non-RTW states).

Overall, our paper sheds new light into how organized labor interacts with financial stakeholders of the firm, unsecured creditors in particular. We show that unions can make bankruptcy more costly, prolonged, and convoluted through the way unionized workers’ rights are assigned under Chapter 11 proceedings. Our study shows that these dynamics are recognized by creditors, who in turn price it into firms’ funding costs. The analysis we put forth may provide new insights for researchers and policymakers in better understanding how firm–labor relations shape corporate access to credit.

**2. STUDIES. Our studies assume changes in bankruptcy risk and cost changes within bankruptcy. The net effect of unionization is still to massively drive up yields.**

Murillo **Campello et al. 18**, Campello Johnson Graduate School of Management Cornell University, Jiaping Qiu DeGroote School of Business McMaster University, Janet Gao Kelley School of Business Indiana University, Yue Zhang Universite Catholique de Louvain, “Bankruptcy and the Cost of Organized Labor: Evidence from Union Elections,” The Review of Financial Studies, Volume 31, Issue 3, March 2018, Pages 980–1013, https://doi.org/10.1093/rfs/hhx117

4 Bankruptcy Likelihood and Bankruptcy Costs

Our results show that unionization affects bond values, an outcome that may arise from an increase in the likelihood of bankruptcy or higher bankruptcy costs. We set out to investigate these two channels. To gauge the effect of unionization on bankruptcy likelihood, we use our bond–union matched dataset and track the evolution of firm performance and financial health for several years after union elections take place, comparing close winners and close losers over time. To gauge the effect of unionization on bankruptcy costs, we gather additional data on bankruptcy proceedings from several sources and examine whether unionized firms experience longer, costlier bankruptcies. We also examine the effects of union actions and powers in bankruptcy on bondholders’ recovery value. Across these sets of investigations, we employ a variety of empirical approaches to accommodate the characteristics of the datasets we use.

4.1 Unionization and Bankruptcy Likelihood

For every firm in which an election takes place, we compute performance measures such as return on assets, book-to-market ratio, firm size, liability ratio, cash holdings, tangibility, Z-Score, O-Score, and distance to default. For benchmarking, we subtract industry medians from these variables. We then track the evolution in these industryadjusted measures for the five years following the election year, comparing the difference of these measures to their original level in the year prior to the election. Finally, we use local linear regressions similar to Eq. (6) to test whether changes in those performance measures differ across close union election winners and losers. To ensure that the power of our results is not limited by the bond–union matched sample, we repeat the test in a larger sample that includes all firms with a union election, regardless of the availability of detailed bond trading data; that is, we use a super set of our base sample.

Table 5 reports RDD estimates associated with close union victories on each of the industry-adjusted metrics we consider. Panel A displays the results from our main sample, which admits firms with both union election data and sufficient information to calculate bond returns. Panel B shows results from a broader sample that includes all publicly traded firms with union elections. In both panels, the coefficient for union victory is rarely significant, indicating that close union winners and losers experience similar postelection performance.

The lack of performance deterioration for the close union-winning firms within five years following the election could indicate that the effect of unionization may only materialize in the longer term (more than five years). If this is the case, bonds that mature within five years following the election should not be affected by unionization. We investigate this possibility by examining whether bonds with less than five years to maturity at the election year experience any difference in returns across close winners and close losers. Table 6 repeats the RDD analyses of Table 4 for the subsample of bonds with less than five years to maturity. Even for this subsample, close union winners experience declines in bond CARs. In other words, shorter-term bond values drop in the aftermath of unionization even though there is no evidence that unionization will affect the odds the firm will go bankrupt in the short term. The value estimates are statistically significant, yet sensibly smaller in magnitude compared to those from the full sample analyses.

The results from Table 6 seem to rule out the argument that unionization only affects bond prices in the long term (more than five years after the union election). At the same time, the results from Table 5 suggest that unionization has no measurable influence over a firm’s probability of default in the foreseeable future. From the declining prices of soon-to-mature bonds (within five years of union election), one likely inference is that the decline in bond value following elections is caused by higher bankruptcy costs, conditional on that event. We consider this argument in turn.

4.2 Unionization and Bankruptcy Costs

We conduct a host of analyses to gauge the effect of unionization on the bankruptcy costs born by bondholders. To do so, we focus on information regarding costs documented in actual Chapter 11 case proceedings. We begin by examining whether unionization leads to steeper loss rates for bondholders. We then utilize detailed evidence of bankruptcy expenses to examine whether unionized firms experience longer, more complicated, or costlier bankruptcy proceedings. In the last set of analyses, we explore discrete variation in unions’ statutory powers under the U.S. Bankruptcy Code, estimating bondholders’ losses in relation to unions’ court-assigned committee powers.

4.2.1 Bondholders’ Loss Given Default

The significant drop in bond prices that we document seem not to be explained by an increase in the likelihood of bankruptcy brought about by worker unionization. As bond prices are highly sensitive to loss rates that bondholders effectively suffer in default states (Duffie and Singleton (1999)), we set out to verify whether bondholders’ losses in bankruptcy could justify the negative bond CARs that we observe following unionization. We do so via an RDD test where we regress bondholders’ losses in bankruptcy on the outcomes of union votes that occurred prior to the host firms’ bankruptcy filings. This test strategy is pointed in that it only considers firms that did file for bankruptcy; it holds fixed the relationship between unionization and the occurrence of bankruptcy. For the purpose of this test, we focus on elections that happened up to three years prior to bankruptcy, as they seem most relevant for meaningful inferences. Notably, a standard McCrary test on the firms considered point to continuity of the forcing variable, suggesting that firms that eventually went bankrupt were smoothly distributed around the vote share cut-off determining unionization. Likewise, the distributions of standard distress risk measures, such as Z-Score and Distance-to-Default, are continuous around the unionization cut-off.

To gauge bondholders’ loss rates in court, we use Moody’s loss given default (LGD) rates for creditors in Chapter 11 bankruptcies. Moody’s LGD measures the percentage value of borrowers’ claims that is lost in formal default. In our setting, it represents the portion of bond par values that cannot be recovered from bankruptcy proceedings. Moody’s describes its three methods of calculating LGDs as: “1) settlement method, whereby the value of the settlement instruments is taken at or close to default, 2) liquidity method, whereby the value of the settlement instruments is taken at the time of a liquidity event, and 3) trading price method, whereby the value of the settlement instruments is based on the trading prices of the defaulted instruments at or post-emergence.” Moody’s recommends using the valuation method that is most representative of the actual recovery case. We follow that recommendation in our calculations.

Matching the LGD data for bonds to the election records of the corresponding bankrupt firms, we obtain a sample of 309 bond-election observations from 1990 through 2009. The matching yields a super set of our base data in that it does not require detailed bond trading information over numerous months around a union vote. The RDD model estimation resembles the local linear regression of Eq. (6), but features LGD as the dependent variable. It shows that worker unionization that takes place within a three-year horizon prior to bankruptcy leads to a 32% increase in the loss rates of bondholders in bankruptcy court (t-statistic of 2.21). To interpret the economic magnitude of this estimate, we use risk-neutral default probabilities estimated by Almeida and Philippon (2007), who account for investors’ risk preferences.17 Given that our sample firms have an average credit rating of A3, they have a risk-neutral default probability of 12%. Our RDD test of LGD rates thus implies that, following unionization, bondholders should expect an in-court loss rate of 3.8% (= 12% × 32%). This result is interesting in showing that our LGD estimate is in line with the baseline results that unionization leads to a 2% to 4.7% decline in bond value. Put differently, the bond price reactions that we observe upon news of worker unionization map into the expected value losses bond claims observe in bankruptcy states. In the remainder of this section, we set out to characterize the role of unions in generating losses in bankruptcy court.

**Debt UQ – 2NC**

**Spreads are low, indicating low perceived credit risk.**

*This card also conveniently explains what is going on with the DA in English*

Justin **Ho 12/2**, Markets/Wall Street reporter, "One positive economic indicator? Narrowing corporate bond spreads," Marketplace, 12/02/2025, https://www.marketplace.org/story/2025/12/02/one-positive-economic-indicator-narrowing-corporate-bond-spreads

Investors have been keeping track of falling government bond yields over the last few weeks, especially since bond markets have been sending signals that investors expect the Federal Reserve to cut interest rates later this month.

Meanwhile, corporate bond yields have been sending signals of their own — about interest rates, yes, but also about where the economy is headed.

Corporate bonds are generally considered to be riskier than government bonds, since companies are more likely to run into trouble and default than the U.S. government.

As a result? “Investors want to get additional compensation to take on that additional credit risk,” said Lawrence Gillum, chief fixed income strategist at LPL Financial.

The extra compensation that corporate bonds pay out compared to government bonds is called a spread, and those spreads can change.

“There’s been times when spreads are lower, and obviously times when spreads are higher as well, this time being one of those times that spreads are lower,” Gillum said.

In fact, spreads have been fairly low for most of this year. In other words, investors aren’t demanding much extra compensation from companies.

It’s a sign that investors think economic growth will stay strong and that companies will be in a good position to pay back their debt, according to John Canavan, lead market analyst at Oxford Economics.

“If that’s the case, then you are optimistic about getting your money back,” he said. “You are not going to demand as high a yield from these corporations because you believe your risk is a little bit less.”

That means corporations themselves will find it easier and cheaper to borrow money. “If you’re willing to give me $100 million at very friendly terms, then I can find ways to invest that, I can find ways to help build my company with that,” Canavan said.

And that kind of investment can help the economy.

**Balance sheets, interest, anticipated fiscal stimulus, and credit ratings make current debt loads sustainable---spreads are 38 basis points below decade average.**

Rainier **Harris 1/10**, Bloomberg News Reporter, Columbia University English graduate, Scholastic Art & Writing Awards winner, Media for a Just Society winner, Transom Specials finalist, "More Bonds Are Teetering on the Brink of Junk: Credit Weekly," Bloomberg, January 10, 2026 at 3:00 PM EST, https://www.bloomberg.com/news/articles/2026-01-10/more-bonds-are-teetering-on-the-brink-of-junk-credit-weekly?embedded-checkout=true

Beneath the calm surface of the US corporate bond market, there are worrying signs about companies that could lose their investment-grade status.

The first full week of the year has been one of the busiest for US corporate debt sales on record, and risk premiums stayed low even amid heavy issuance. But the amount of bonds teetering on the brink of junk surged last year, according to JPMorgan Chase & Co.

Around $63 billion of US corporate bonds in the high-grade universe have a high-yield rating from one bond grader, a BBB- rating from others, and at least one negative outlook, according to the bank’s review based on ratings for debt in its high-grade US index. That figure was $37 billion at the end of 2024, JPMorgan strategists wrote.

“As companies continue to refinance debt, the pressure on their balance sheets from rising interest expense is growing,” said Nathaniel Rosenbaum, a US high-grade credit strategist at JPMorgan. “That, in turn, does put a little bit more ratings pressure on weaker credits.”

More Bonds Cut to Junk Than Made High Grade

JPMorgan doesn’t anticipate market turmoil anytime soon. Demand from investors is still strong, and earnings will probably be relatively strong in the coming weeks, leaving spreads relatively rangebound.

But there are still risks in credit. About $55 billion of US corporate bonds migrated from investment-grade to junk status in 2025, becoming “fallen angels,” according to JPMorgan. That far exceeds last year’s $10 billion of “rising stars,” or firms elevated to high-grade. And the trend is set to continue, the strategists say.

BBB- debt is just 7.7% of JPMorgan’s US high-grade corporate index, a record low share. But a relatively high amount of debt is susceptible to being cut to junk. Companies typically see their spreads blow out when they lose their high-grade status, as the universe of junk bond investors is much smaller in dollar terms than investment-grade.

There are reasons to be a little more concerned about credit risk now: Broad measures of indebtedness have been creeping higher relative to earnings, fueled by rising yields after the pandemic, a flood of spending on artificial intelligence, and acquisitions.

“If you look underneath the hood there are underlying signs of weakening in credit profiles,” said Zachary Griffiths, head of US investment grade and macro strategy at CreditSights Inc.

But in the near term, demand for bonds has been strong. And fiscal stimulus from some provisions of the One Big Beautiful Bill Act could help keep consumer sentiment “a little more buoyant,” Griffiths said.

Generally, money manager have been less worried about credit risk for months. Investment-grade spreads have spent much of this week averaging 0.78 percentage point, or 78 basis points, and haven’t risen above 85 basis points since June, according to Bloomberg index data. The mean for the last decade is closer to 116 basis points.

### Debt UQ – 2NR

**Supply and demand for corporate debt are still deep.**

Nicholas **Elfner 1/6**, Co-Head of Research, Breckinridge Capital Advisors, "Q1 2026 Corporate Bond Market Outlook," Corporate Commentary, 01/06/2026, https://www.breckinridge.com/insights/details/q1-2026-corporate-bond-market-outlook/

We expect stable credit fundamentals in 2026. Agency rating actions have continued with positive bias.11 Credit is supported by solid revenue growth and cost discipline, driving margin improvement and steady debt metrics. However, mergers and acquisitions (M&A) and capital expenditures (cap ex) are each rising notably and may strain credit metrics if debt funding is used prodigiously. Idiosyncratic events in sub-prime and private credit are risks.

Our macro-outlook for 2026 is for moderate real economic growth. Growth has been driven by spending from high income households and a boost in productivity from AI related cap ex. The Breckinridge Investment Committee anticipates one additional rate cut in 2026, with the 10-year Treasury yield expected to trade between 4.0 percent and 4.5 percent. Payroll growth slowed down in the fourth quarter of 2025, and the Federal Reserve’s (Fed’s) view is clear that the labor market has softened sufficiently to warrant additional monetary accommodation to stimulate demand.

We see tactical opportunities in short--to-intermediate-term corporates on reasonable credit curves and breakeven spreads.12 We expect more 30-year issuance, which may present opportunities. Relative value should emerge across capital structures in Banks, Insurers, and Utilities as these sectors may see an increase in hybrid capital supply. Above-average yields, steady investor demand, and stable credit fundamentals are counterbalanced by tight spreads, rising new issue supply, cap ex, and M&A, driving a modest overweight to the corporate sector with a defensive posture.

Valuations: Sector Dispersion and Opportunities

IG corporate bond spreads, as measured by the Index, tightened by two basis points (bps) during the year, ending the fourth quarter at an option-adjusted spread (OAS) of 78bps.13 Spreads are rich, in the 2nd percentile over a 20-year lookback. Compressed valuations argue for a defensive stance entering 2026. The yield-to-worst (YTW) for the Index was 4.81 percent on December 31st. An IG YTW in the 66th percentile, since 2005, may support investor demand via domestic and foreign funds flows.14

Long corporates (-4bps) modestly outperformed intermediate corporates (-2bps) on a spread basis, as credit curves flattened slightly. There was dispersion across industries, with tighter spreads in sectors such as Healthcare (-13bps), Banking (-9bps) and Capital Goods (-8bps), partially offset by wider spreads in Finance (+30bps), Technology (+11bps), and Utilities (+2bps) for the full year.

Quality spreads widened slightly during the year, with the A Index (+64bps) 4bps tighter and the BBB Index (+97bps) unchanged on the year. The spread differential of 33bps is tight relative to recent history with a Z-Score15 of negative 1.5 compared to the average over the last five years.16 The spread/yield conundrum reminds us of prior periods (1995-1997 and 2004-2006), with relatively high risk-free rates and tight spreads that lasted for a few years. This relationship can persist until a financial shock and/or a sharply weakening economy prompts a material drop in the fed funds rate and Treasury yields that correspond with a higher credit risk premium.

Technicals: Supply Rising, Demand Still Deep

Entering 2026, we think bond supply may accelerate on rising cap ex and M&A activity. IG gross bond supply was $321 billion in the fourth quarter, and $1.82 trillion in 2025. On a net basis, after redemptions, issuance was $86 billion and $548 billion, respectively.17

We expect to see more supply in longer-maturity corporate bonds this year, which may present opportunities, particularly for yield-oriented buyers. One investment bank is estimating gross and net issuance of $2.25 trillion and $1.0 trillion in 2026, respectively, which would eclipse the previous gross record of $2.1 trillion in 2020.18

We think fund flows can remain healthy while IG supply may accelerate on rising cap ex and M&A activity. Inflows into taxable bond funds and exchange-traded funds (ETFs) were $156 billion in the fourth quarter and $490 billion in 2025.19 Foreign investor net corporate purchases were $83 billion for the three months and $304 billion for the 12 months through October.20

On the supply side, we expect large issuance from the Technology and Utility sectors to be somewhat counterbalanced by less supply from the Banking sector.

Utilities may also materially increase their borrowing in the corporate bond market in 2026. Utility cap ex grew from $104 billion in 2015 to $208 billion in 2025 and may reach $248 billion in 2029.21 Cap ex will bring a wave of new debt issuance.22

In the fourth quarter, U.S. Bank regulators issued a final rule to modify certain regulatory capital standards including changes to the Supplementary Leverage Ratio (SLR) that will likely reduce holding company long-term debt (LTD) issuance needs.23 These regulatory changes could reduce external LTD requirement by over $150 billion and Total Loss Absorbing Capital (TLAC) needs by nearly $100 billion.24 Higher surplus LTD suggests reduced refinancing and U.S. Bank net supply may be sharply lower, potentially down 40 percent in 2026.25 We view lower supply as a supportive technical for Bank bond spreads.

Fundamentals: Stable, With Pockets to Watch

We see stable credit fundamentals for Industrials in 2026. Non-financial credit metrics were stable in the last quarter and indeed over the past few years.26 Credit is supported by solid revenue growth and cost discipline, which are driving margin improvement and steady debt metrics.

**Key to Econ – 2NC**

**Credit tail risks would nuke the economy---it's on-course but fragile.**

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Key Takeaways

Our Credit Cycle Indicators--globally and across most regions--continue to decline. Tail risks could upend supportive financing conditions and compound a credit correction.

Corporates in the technology sector are driving spending and investment, while those in tariff-exposed niches or are lower-rated remain vulnerable to trade policy swings and margin squeezes.

Household sentiment may stay tepid as living costs continue to bite and employment strains remain, especially for lower-income cohorts. This could dampen consumption and households' appetite and capacity to take on new debt.

What Are The Credit Cycle Indicators?

S&P Global Ratings' Credit Cycle Indicators (CCIs) monitor buildups and corrections in leverage and asset prices over the medium term, as well as financing conditions. They do not directly capture or predict shifts in government policies, geopolitics, or trade, which are heightened risk factors in the global economy today. Nevertheless, we use these tools to gauge developments and turning points in the credit cycle as part of our holistic analysis of economic and credit conditions.

For more details about S&P Global Ratings' CCI, see "White Paper: Introducing Our Credit Cycle Indicator," published June 26, 2022.

Global

Tail risks could compound credit correction pains

The global Credit Cycle Indicator (CCI) is declining as most regional CCIs (except the eurozone's) ride a downturn. Entering 2026, geopolitical swings and tail risks (such as a sharp and unexpected market repricing event) may compound volatility and exacerbate the unevenness in the credit landscape. This could upend supportive financing conditions, in which borrowers have pushed out maturities and face lower refinancing risk.

Household leverage is picking up, underlined by the rise in the global household subindicator, albeit from a low base. Even so, household spending could remain constrained by cautious sentiment, especially among lower-income cohorts where employment prospects may soften. A high cost of living, despite easing headline inflation, adds to strains.

The corporate subindicator is showing signs of an uptick. This momentum may continue amid rising capital expenditure and record equity performances in the technology sector on the AI and data center boom. For rated issuers, healthy earnings, the ability to cope with tariffs, and falling interest rates should continue to provide support. Even so, tail risks could materialize, and the ensuing volatility may weigh on investment decisions across the corporate sector.

[CHART 1 OMITTED]

Asia

Asia's credit storyline continues to chart a correction

China: The persistent fall in the China CCI points to a deepening credit correction. Easing trade tension between China and the U.S. could provide some relief for Chinese manufacturers. However, the country's export outperformance (from the earlier "frontloading" of exports) could soften, as the lagged impact of trade restrictions starts to materialize. Meanwhile, the country's sticky property woes come amid limited large-scale policy stimulus.

Household sentiment remains weak amid softening employment prospects. The household subindicator may remain subdued as household spending and borrowing appetite stay tepid. Meanwhile, the momentum in corporate borrowing has moderated as firms stay prudent on spending and curb capital expenditure. With "anti-involution" policies starting to take effect, some easing of the downward pressure on prices should support profitability for manufacturers. Even so, the earlier debt buildup remains substantial; some firms could struggle to unwind their debt burdens. The country's corporate debt-to-GDP stands at 142% as of the second quarter 2025.

Amid the country's strategic push toward advanced manufacturing, infrastructure and innovation, banks may be called upon to support lending to these sectors. However, more selective lending could ensue for riskier pockets. This includes micro and small to midsize enterprises which are more exposed to tariff pain and have increasingly accounted for more of banks' loan portfolios. This could hurt banks' capital and earnings, and crimp their appetite to lend to this cohort.

[CHART 2 OMITTED]

Japan: The Japan CCI continues to decline as growth outpaces leveraging, but the downward momentum seems to be moderating. We expect the Bank of Japan to keep its gradual policy rate hikes in coming years, raising domestic borrowing costs that may hit some cohorts more sharply. The narrower gap between Japanese and overseas interest rates may prompt more overseas funding by Japanese corporates.

Recent agreements between Japan and the U.S. on Japanese corporate investment in the U.S., may mean more capital raising by Japanese firms to fund overseas expansion and cross-border activity. This also comes as businesses seek to increase sales to foreign markets amid muted domestic demand. As Japanese corporates tap more into offshore borrowing, this could raise their exposure to foreign-exchange risk if they do not have enough foreign-denominated income, lack a hedging strategy, or face poor performance of overseas activities.

Amid easing inflation, lower cost of living pressures could ease stress on household balance sheets. However, household sentiment could remain weak amid still-softening real wages and macro uncertainties, keeping discretionary consumption subdued. While Japanese households have a large collective savings pool, the distribution may be uneven across income cohorts. Of which, lower-income groups face outsized pains.

[CHART 3 OMITTED]

Rest of Asia: Like China and Japan, the rest of Asia is observing a downturn in the CCI, which underlines a potential credit correction in the next six to 10 quarters. This is despite supportive financing conditions and an improving growth outlook from easing trade tensions with the U.S. Rising tail risks (e.g., around unexpected geopolitical events and equity rally snaps) could exacerbate market volatility and sour sentiment, entailing a sharper credit correction.

The corporate subindicator continues to turn upward, supported by equity gains in markets such as Hong Kong, and rising corporate indebtedness in places such as India and Malaysia. Amid lagged tariff effects, Asian manufacturers may maintain borrowing to cope with cash flow strains; the upward momentum in corporate debt may continue in some markets.

The household outlook is mixed across markets. In Thailand, households are deleveraging, but their debt stock is high, underlining vulnerabilities. Meanwhile, household indebtedness is rising in markets such as Hong Kong and Malaysia; a budding property market recovery in the former may improve sentiment and support transactions, repairing demand for housing loans.

[CHART 4 OMITTED]

Emerging Markets

Financing conditions drive the expected credit slowdown

Peaks and troughs in the CCI tend to lead credit stresses and recoveries within six to 10 quarters. The CCI declined again, while remaining 0.1 standard deviations above its long-term trend. It is the second consecutive decline in the indicator after its relative peak, reached in the fourth quarter of 2024, at 0.6 standard deviations, suggesting a potential credit correction could manifest around the second half of 2026. Like the previous update, relatively tighter financing conditions contributed to the downward movement, on heightened volatility stemming from unpredictable U.S. trade policy in the first half of 2025. Both the household and corporate subindicators displayed muted movements, signaling a stable credit picture ahead.

Borrowing costs proved to be accommodative for emerging markets in the second half of 2025 (in the form of very tight spreads), opening refinancing opportunity windows and allowing monetary policy easing from local central banks. However, market volatility and uncertainty are here to stay in 2026 due to geopolitical risk, trade policy uncertainty, and the threat of an asset price correction in fixed income markets.

Moreover, as documented in our white paper, the toughest credit stresses are typically preceded by the CCI reaching a peak value higher than one standard deviation, and with a rapid upward buildup. As an example, in the postpandemic CCI peak of 2.3 standard deviations, the indicator cumulated a 2.8 standard deviation increase over the five quarters before. The CCI's peak in the fourth quarter of 2024 reads at 0.6 standard deviations, with the rise over five consecutive quarters amounting to "only" 0.8 standard deviations. Therefore, we expect a credit slowdown instead of a severe credit correction from a historical perspective.

The downward movement of the CCI was consistent across countries, with Colombia, Mexico, India and South Africa displaying the mildest decreases.

[CHART 5 OMITTED]

Corporates: The corporate subindicator continues its very mild ascending trend from its trough in first quarter of 2023 (-1.5 standard deviations below its long-term trend). Emerging market (EM) equity performance outpaced that of developed economies over the past year across regions, particularly in Latin America. Corporates accessed the bond market mainly for refinancing purposes, given the extreme amount of market uncertainty has been hindering budget planning.

This picture should generally hold for the months to come. Yet, we expect credit performance across sectors and regions to differ in 2026, with the chemicals sector and Latin America most at risk in terms of potential downgrades. Specifically, if external or domestic factors hinder rate cuts, Turkish and Brazilian corporates could be undermined by the high level of local borrowing costs, straining cash flow and limiting capital expenditure.

Households: The household subindicator has stalled at -0.2 standard deviations over the past eight quarters, mirroring the economic resilience observed throughout EMs. Favorable financing conditions, combined with low unemployment levels and improving real wages, will help keep domestic demand robust in 2026 in most EMs. Household debt (as a percentage of GDP) was unchanged, reflecting a precautionary saving behavior, with India representing the exception with half of loans taken for consumption purposes. Still, Indian households' leverage remains at levels well below those of peers such as Thailand and Malaysia. Property price evolution will follow an idiosyncratic path in 2026, linked to policy rate movements, as we've observed for Chile, Colombia, Mexico and India, displaying an upward trend in 2025.

Eurozone

European credit landscape: waiting for clear signals

Data from the second quarter of 2025 reinforces our previous assessment that the CCI in Europe is lacking clear momentum and is moving sideways. This trend raises doubts about a near-term recovery in the credit cycle, despite some underlying subcomponents of the indicator presenting a more favorable outlook. Notably, increasing equity and house prices across much of Europe--albeit real house prices are trailing in Germany, France and the U.K.--along with improved borrowing capacity supported by resilient corporate balance sheets, contribute positively to the picture. However, these favorable fundamentals are countered by strains stemming from a shifting geopolitical landscape.

Corporates: The corporate indicator has experienced a slight uptick, albeit without convincing underlying momentum. After deleveraging during 2024, corporate debt levels showed minimal changes in the first half of 2025. As of the end of the second quarter, France's corporate debt stood at 155% of GDP--partly attributed to the inclusion of intragroup loans--versus 89% in Germany, 59% in Italy, 79% in Spain and 59% in the U.K. The outlier is Ireland: leverage decreased from 113% to 100% within a quarter, mainly reflecting volatility in the underlying GDP measures.

Although fundamentals remain favorable for a potential restart of the credit accumulation cycle, European consumer and economic sentiment remains broadly stable in December 2025 and below average. This suggests that sluggish consumer confidence and a low investment appetite continue to weigh on the potential for increased credit demand.

Households: Household balance sheets are improving across most European countries, bolstered by rising property and equity prices. However, considering economic and geopolitical uncertainties, households are still reducing their credit exposures. Recent Eurostat data indicates that household gross savings in the eurozone are hovering around 15.5% of gross disposable income, marking the highest level since this statistic began in 1998 barring the exceptional peak during the COVID-19 pandemic (up to 25%).

[CHART 6 OMITTED]

North America

Credit recovery could reverse course

After a gradual ascent from its most recent trough, the North America CCI retreated to -0.6 standard deviation as of the second-quarter 2025 (see chart 7), as significant policy and geopolitical uncertainties roiled markets and dampened consumer and business sentiment. This signals a turn in the gradual credit recovery that has been suggested by the CCI. Looking ahead, the region's credit story seems increasingly nuanced. Fairly favorable financing conditions, which have eased amid tariff pauses and initial trade agreements, and accelerated AI-driven investments could add to a positive momentum of the credit trajectory. On the other hand, a persistently high cost of living and a softening labor market will likely further strain households, curbing consumer spending and related sectors.

[CHART 7 OMITTED]

Corporates: The corporate subindicator stayed flat as of the second quarter 2025. In our base case, we expect resilient economic growth, robust demand for debt, and two years of positive corporate earnings to help the U.S. speculative-grade default rate decline through September to 4% from 4.6% in September 2025. However, sectoral performance could diverge--tech hyperscalers have been driving the growth in EBITDA and capital expenditure, while certain tariff-sensitive sectors have been grappling with rising costs and margin pressures. Meanwhile, lower-rated borrowers remain vulnerable to elevated financing costs and any sudden shift in investor risk appetite.

**Increasing debt rollover risk poses a systemic challenge to economic growth.**

Mar **Domenech-Palacios &** Martina **Jančoková 25**, Domenech-Palacios is an Economist at European Central Bank, PhD in Economics from University of Cambridge; Jančoková is a Senior Analyst at European Central Bank International & European Relations Division, International Policy Analysis, Macroeconomics and Monetary Economics, International Economics, "Challenges to the resilience of US corporate bond spreads," ECB Economic Bulletin, Issue 3/2025, https://www.ecb.europa.eu/press/economic-bulletin/focus/2025/html/ecb.ebbox202503\_01~77cc87aa1f.en.html

Two types of risk are present – debt rollover risk and repricing risk. A substantial amount of US corporate debt will potentially need to be refinanced in the coming months and years. This includes USD 642 billion of debt scheduled to mature in the rest of 2025, USD 930 billion in 2026 and USD 860 billion in 2027. Despite recent policy rate cuts by the Federal Reserve, corporate funding costs remain elevated, as interest rates are still generally higher than those prevailing at the time of issuance, exposing US firms to higher costs when refinancing their debt. Simulations suggest that 85% of the maturing debt would need to be refinanced at higher rates. More than half of maturing bonds would face more than a 1 percentage point increase in interest rates if refinanced at current rates, while around 25% of maturing bonds would face more than a 2 percentage point increase (Chart D). Such increases in costs could potentially weaken firm fundamentals, raising default risks and worsening risk sentiment.

A deterioration in risk sentiment triggers heightened bond sensitivity and a disproportionate spread widening for more vulnerable firms. The recent abrupt shift in risk sentiment could carry significant implications, not only altering the average magnitude of reactions to market shocks but also influencing which bonds are most responsive. During risk-off episodes, bonds exhibit heightened sensitivity, reacting more intensely to market dynamics (Chart B, panel b). Moreover, analysis reveals that, in these periods, investors tend to retreat from bonds issued by firms with worse financing conditions given their fundamentals (bonds in the right tail of the EBP distribution), causing a disproportionate widening of their spreads. While firm fundamentals remain strong, corporate expected default frequencies (EDFs), which indicate the probability that a company will default on its payments within one year, point to limited but emerging vulnerabilities. For example, the 75th percentile of EDFs has been on a strong upward trend and at the end of March 2025 stood at around 18%, a level not observed since the global financial crisis (Chart E).

**Sentiment about business debt is a highly accurate leading economic indicator. Shocks rapidly depress real GDP.**

Danilo **Leiva-León et al. 25**, Danilo Leiva-León, Economist and Policy Advisor at Federal Reserve Bank of Boston; Thomas Lubik, Senior Advisor at Federal Reserve Bank of Richmond; Gabriel Pérez-Quirós, Unit Head of Macroeconomic Research at Bank of Spain; Nathan Robino, Research Associate at Federal Reserve Bank of Richmond; Horacio Sapriza, Senior Economist and Policy Advisor at Federal Reserve Bank of Richmond; Francisco Vazquez-Grande, Principal Economist at Federal Reserve Board of Governors; Egon Zakrajšek, Director of Research at Federal Reserve Bank of Boston, "Sentiment About Business Debt as a Leading Economic Indicator," Economic Brief, March 2025, No. 25-09, https://www.richmondfed.org/publications/research/economic\_brief/2025/eb\_25-09

Understanding the sources and transmission of financial distress in the economy is essential for macroeconomic stabilization policy. For example, policymakers and academics have both pointed to excesses in credit markets — including abnormally low risk premiums, misaligned incentives for risk taking, lax credit standards and excessive borrowing — as the main culprits behind the 2008-09 financial crisis.1 Since then, many questions have emerged regarding the role of credit factors in business-cycle fluctuations. Postwar data for multiple economies suggest that rapid growth in business or household credit and in asset prices are reliable predictors of a financial crisis within the next three years,2 and highlight the key role of corporate debt3 and household debt4 in explaining boom-bust cycles, financial crises and slow macroeconomic recoveries.

Using a new statistical model, the 2022 article "Introducing the Credit Market Sentiment Index" — co-authored by several writers of this article (Danilo, Gabriel, Horacio, Francisco and Egon) — estimated a factor summarizing conditions in U.S. credit markets and showed that it is strongly associated with business debt. We refer to this factor as the credit market sentiment index (CMSI).

In this article, we embed this index in a standard multivariate time series model to forecast the path of credit markets and key macroeconomic indicators. The results suggest that shocks to credit sentiment tied to business debt strongly forecast movements in real GDP growth, the effective federal funds rate and (to a lesser extent) price inflation.

Background on the CMSI

Credit market conditions are closely linked to real economic activity. The Great Recession highlighted the importance of household debt relative to business debt conditions. As outlined in the previous article, we develop a statistical framework that incorporates information from credit market indicators with strong links to business debt and real economic variables to isolate the conditions in the credit market that are independent of current economic conditions. This is the CMSI.

The construction of this index entails extracting information about credit market conditions from multiple credit market indicators that we expect to be strongly linked to business debt and that are both price-based and quantity-based. The model extracts three statistical factors that describe the state of the economy:

The economic activity factor

The CMSI

The probability of an adverse economic state

In this article, we focus on the CMSI (shown in Figure 1), where a higher value reflects frothier sentiment. As depicted in the figure, the index identifies, for instance:

The credit market froth before the Great Recession

The sharp decline in credit sentiment as concerns about economic performance and financial risks surged in 2015

The drop in the index among elevated uncertainty about the resiliency of the economy and the financial sector following the COVID pandemic

The partial recovery of the indicator since 2022 as market participants' perceptions about severe downside risks in financial markets and the real economy gradually started to moderate

A Bayesian VAR to Study the Effects of Changes in Financial Sentiment

Next, we analyze how our measure of credit market conditions unrelated to current economic fundamentals may shape headline macroeconomic indicators. We use a rich time-series statistical model that incorporates the CMSI and five covariates:5

Real GDP growth, represented by a synthesis of Stock & Watson monthly GDP series and the S&P monthly GDP series

The unemployment rate

Personal consumption expenditure price index (PCE)

Personal consumption expenditure price index excluding energy and shelter (core PCE)

The effective federal funds rate (FFR)

We specify a six-variable vector autoregression (VAR) and estimate it using Bayesian methods. As is standard in the literature, we assume a Minnesota prior that centers each variable's dynamics on its own lags.6 That is, the variables in our model are very persistent and largely independent of one another.7

We are interested in the effect of a shock that boosts credit sentiment on key macroeconomic variables and in forecasts for the paths of these macroeconomic indicators considering alternative future credit market tightness scenarios. We identify the shock by means of a recursive ordering of the variables. By ordering the credit factor first in the sequence of variables, we impose the assumption that the factor is independent contemporaneously from macroeconomic conditions. Our findings are robust to alternative orderings of the factor.

Each panel of the figure above illustrates how variables react to an increase of one standard deviation (four index units) in the CMSI. On impact — that is, in the period of the shock, which starts at month zero on the x-axis — the credit factor (Figure 2a) has a value of 4, and each of other variables immediately respond:

GDP growth increases by nearly 0.5 percentage points.

PCE and core PCE inflation increase by 0.4 and 0.7 percentage points, respectively.

Unemployment and the federal funds rate have smaller responses on impact.

The CMSI peaks about four months after the shock and thereafter gradually declines, suggesting that credit market conditions remain frothier than prior to the initial shock even after two years. The dynamics of the CMSI are consistent with the idea that sentiment is a highly persistent object that can therefore have potentially long-lasting effects on the economy.

GDP growth responds positively to the easing of credit, peaking at six months with a cumulative increase of 2 percentage points. To account for higher GDP growth, the unemployment rate decreases by 0.6 percentage points six months after the shock, peaking at a 0.7-percentage-point decrease three months later.

However, the long-run effect on unemployment moves in the opposite direction: Five years after the sentiment shock, the unemployment rate response is a 0.5-percentage-point increase. The increase in output is accompanied by a delayed increase in inflation, with PCE increasing by 1.2 percentage points and core PCE by 2.4 percentage points two years after the credit factor shock. The model then predicts that the FFR will increase 1.4 percentage points within four months and over 2 percentage points within 18 months, as economic activity initially increases and then inflation increases.

Another way to assess the role of credit market sentiment dynamics on the path of key macroeconomic variables is to examine the economic forecasts under different assumed paths of the CMSI. Each panel of Figure 3 above shows three forecasts. The first (solid purple line) is what the model predicts without restrictions, including a steady increase in the credit factor over the next two years. In the second scenario (dashed red line), we restrict the credit factor forecast to stay at its current level, and in the third scenario (dashed green line), we restrict the credit factor to decrease linearly.

In the median baseline forecast, GDP growth is expected to decrease initially then rebound to 2 percent by December 2025, PCE inflation is expected to decrease to just over 2 percent and be slightly below core PCE inflation, and the FFR is expected to fall by 1.75 percentage points.

In the second and third scenarios, the trajectories for PCE inflation, core PCE inflation and the unemployment rate remain mostly unchanged relative to the baseline. However, in the CMSI flat counterfactual, GDP growth is expected to stabilize around 1.7 percent, and the FFR is expected to decrease by nearly 2.5 percentage points. Furthermore, in the CMSI down scenario, GDP growth declines to 1 percent, and the FFR decreases by over 3 percentage points.

Conclusion

Using a Bayesian VAR, we show that changes in sentiment about credit conditions strongly tied to business debt can have significant and long-lasting effects on the future path of U.S. macro variables. A one-standard-deviation positive shock in credit sentiment can lower unemployment in the short run and boost GDP growth by up to 1.4 percentage points three quarters after, generating inflation and higher FFRs. Conversely, if credit sentiment were to worsen from its current state, we would expect output growth to cool, the unemployment rate to rise short term, and inflation and the FFR to fall.

These findings highlight the importance of considering the role of sentiment in credit conditions of businesses when assessing macroeconomic outlooks, as it can be a leading indicator of persistent changes in economic activity growth, inflation and changes in monetary policy.

**Credit market contraction is an economic nuke war.**

Moses **Silverman et al. 12**, Moses Silverman, Aidan Synnott, Daniel A. Crane, Paul, Weiss, Rifkind, Wharton & Garrison LLP, “En Banc Brief of Amici Curiae Loan Syndications and Trading Association, Managed Funds Association, and Securities Industry and Financial Markets Association in Support of Defendants-Appellees Akanthos Capital Management, LLC, et al.,” Compucredit Holdings Corporation, Plaintiffs-Appellants, v. Akanthos Capital Management, LLC, et al., Defendants-Appellees, 2012 WL 2952956, WestLaw

The extension of credit to businesses is essential to the functioning of the American economy, and a contraction of credit would undermine its health. As the Congressionally appointed Financial Crisis Inquiry Commission found, during the credit squeeze that resulted from the 2008-09 financial crisis, employers found it “tougher to borrow to meet payrolls and to expand inventories.” Financial Crisis Inquiry Commission, The Financial Crisis Inquiry Report 389 (2011), available at http://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPQ-FCIC.pdf. As businesses faced a credit crunch, they laid off employees. “Without jobs, people could no longer afford their house payments” and were forced into default or foreclosure, and the “surge in foreclosed and abandoned properties dragged home prices down still more.” Id. at 389-90. “The credit squeeze in financial markets cascaded throughout the economy,” not only making it harder for businesses to borrow but also contributing to rising unemployment, increased foreclosures, and a depressed housing market, with disastrous effects for the economy and society as a whole. See id. at 389-97.

When credit markets function properly, the forms of available credit are myriad. The members represented by the respective amici are primarily \*6 interested in the extension of corporate loans and the purchase and sale of corporate loans and corporate bonds.

The scale of business operations in the American economy requires individual borrowers to access credit from multiple sources. Some businesses choose to issue bonds, which are usually tradable in secondary markets. Secondary market trading of bonds is crucially important to the national economy, because the availability of a secondary market makes the bonds more liquid, which in turn drives down their interest rate. According to statistics compiled by SIFMA, the outstanding corporate debt market in the U.S. surpassed $8 trillion as of the first quarter of 2012. Corporate bond issuance exceeded $1 trillion in 2011, with an average daily trading volume for that year of $20.6 billion. See Statistics and Data Pertaining to Financial Markets and the Economy, SIFMA, http://www.sifma.org/research/statistics.aspx (last visited June 27, 2012). See also Michael MacKenzie & Nicole Bullock, Wall Street's Looming Finance Vacuum, Fin. Times, June 20, 2012, available at http:// www.businessspectator.com.au/bs.nsf/Article/Wall-Street-markets-banks-debt-liquiditv-UBS-Goldm-pd20120620-VEST8?opendocument&sfc=rss (estimating the size of the U.S. corporate debt market at $8 trillion, with over 80,000 separate bond issues).

\*7 An important source of credit for medium-sized or larger businesses is corporate loans, but of a different character than the conventional bilateral bank credit facility. Given the magnitude of the financial investments required by many business borrowers and the concomitant magnitude of the risks to lenders, a single bank is often unable to satisfy the full borrowing needs of its clients. Hence, most corporate lending today happens through syndication agreements among a number of banks and institutional lenders, each of which extends credit and therefore obtains rights and protections in the management of the debt. Like bonds, these debt instruments are tradable on the secondary market, which makes them less expensive on the primary market. The modern syndicated lending market gives rise to a fast, efficient, and flexible distribution network that is able to finance leveraged transactions in large volumes. In addition, the more lenders there are in a financial system, the lower the likelihood of systemic risks triggered by the solvency problems of any given lender. Broad dispersion of corporate credit across numerous investors makes the financial system safer. According to the Shared National Credit Review, in 2011, syndicated loans in the United States provided $2.5 trillion in financing to U.S. companies, comprising 8,030 credit facilities to approximately 5,400 corporate borrowers representing a broad range of industries. See Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, Shared \*8 National Credits Program 2011 Review 4-5, 11 (Aug. 2011). The face value of the distressed and defaulted debt market was $1.46 trillion as of the end of 2011. Edward I. Altman & Brenda J. Kuehne, Special Report on Defaults and Returns in the High-Yield Bond Market: First Quarter 2012 Review, New York University Salomon Center, Stern School of Business (May 1, 2012), 3, available at http://www.scotlandgroup.com/2012altmanupdate.pdf.

**Collapse detonates a ten trillion dollar economic bomb**

Brendan **Cole 20**, senior reporter at Newsweek, “A $10 trillion corporate debt bomb is waiting to explode the U.S. economy,” Newsweek, 7-29-2020, https://www.newsweek.com/coronavirus-corporate-debt-covid-19-bonds-federal-reserve-1521219

"The government and the Fed have thrown their entire arsenal at the early stages of the pandemic. The Fed's balance sheet has already jumped from $4 trillion to $7 trillion, an increase equivalent to the total increase during the financial crisis," he told Newsweek.

Between January and June, 3,604 companies filed for Chapter 11 bankruptcy, according to data from legal services firm Epiq, a 26 percent annual rise. Tens of thousands more are weighing up whether to make a debt payment on time or keep investment and jobs.

In such an unprecedented crisis, debt maturities put the livelihoods of millions of Americans at stake. Private lenders are unlikely to issue personal or small business loans or corporate debt. Existing loans and lines of credit will have covenants and be recallable, and new lines of credit will be inaccessible.

"The types of policies that make sense are those that help out people in need and those that allow otherwise successful businesses to bridge the gap during a period when private credit markets will be limited or effectively closed," Frank said.

**It’ll be on the level of the 08 recession.**

Mayra Rodriguez **Valladares 21**, senior contributor at Forbes, citing Mojon, Rees, and Schmieder at the Bank for International Settlements, “Looming Corporate Credit Losses Will Be Absorbed By Financial Institutions And Possibly Even By Taxpayers,” Forbes, 3-1-2021, https://www.forbes.com/sites/mayrarodriguezvalladares/2021/03/01/rising-corporate-bankruptcies-will-be-absorbed-by-financial-institutions-and-even-by-taxpayers/

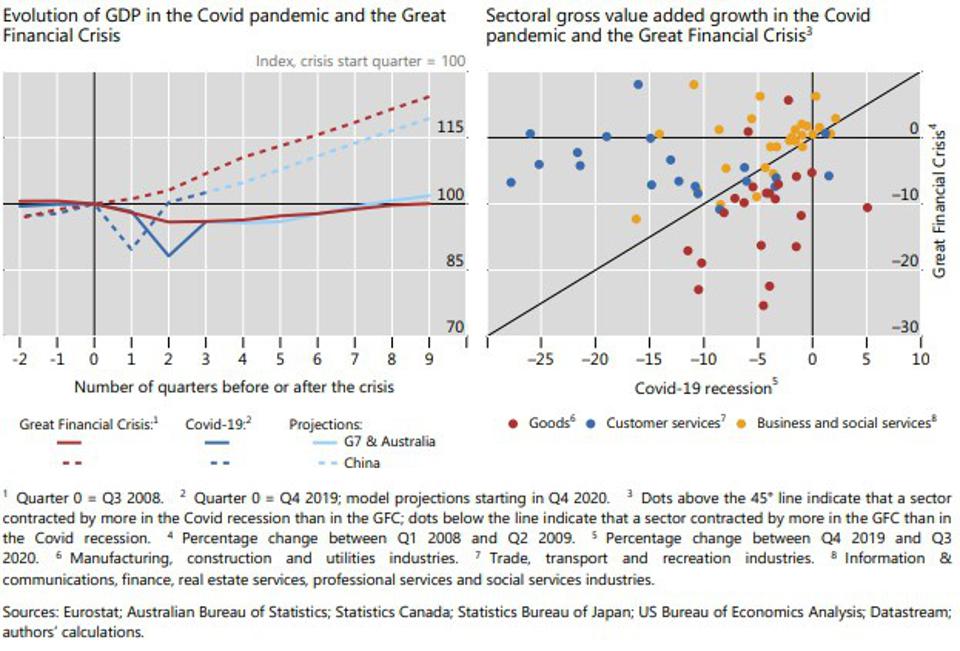
An obsessive focus on stock market returns is lulling many investors and analysts into thinking that the worst of the current COVID-19 economic crisis is over. Before the pandemic struck, I expressed my concern about significantly leveraged non-financial companies in over forty pieces in Forbes. Eye opening research published by Bank for International Settlements economists, Benoît Mojon, Daniel Rees, and Christian Schmieder confirms my view that corporate insolvencies, bankruptcies, and credit losses to financial institutions are just starting to be felt. And as they wrote in “How much stress could Covid put on corporate credit? Evidence using sectoral data” published today, “the looming increase in corporate bankruptcies will generate credit losses that will need to be absorbed, either by the financial system or by taxpayers.”

Mojon, Rees, and Schmieder created a framework to translate sectoral macroeconomic scenarios into sectoral corporate credit losses, and applied it to the Group of 7 (G7) economies, China and Australia. Based on their sectoral GDP projections, the BIS economists found that “corporate credit losses during 2020–22 could be equivalent to about three times the pre-crisis level on average across the G7, China and Australia.” These additional “credit losses emerging from the crisis during the three-year period would cumulate to slightly above 2% of annual GDP or $1 trillion.” Corporate credit losses would be borne not only by financial institutions that have lent to them, but also by investors who invested in leveraged loans and collateralized loan obligations (CLOs) backed by corporate loans. Unfortunately, even taxpayers might be impacted by corporate credit losses if governments have to step in to rescue distressed financial institutions.

The research by Mojon, Rees, and Schmieder shows that corporate credit accounts for slightly more than half of total private non-financial credit in the countries in their study (ranging from 31% of total credit in Australia to 73% in China); corporate credit typically incurs larger credit losses during recessions than does household credit. Therefore, we should all be attentive, because the outlook for corporate credit has a significant bearing on the health of these countries’ financial systems. They project credit losses, defined as recognized impairments on bank and non-bank debt, until the end of 2022; this assumes that the pandemic will be under control by then and that its impact on credit losses will have materialized. We have been lucky that thus far, non-financial corporate bankruptcy rates have been relatively low in most countries, despite partial or full lock downs due to the pandemic. Yet, I expect that as governments reduce fiscal support programs, this will impact companies’ liquidity and credit worthiness. Moreover, consumer changes in spending habits after over a year of the pandemic is likely to put pressure on certain sectors of the economy.

[CHART OMITTED]

As part of their research, the BIS economists combine data on bonds and bank loans to derive corporate debt by sector for each of the G7 countries, China and Australia. They then constructed sectoral economic projections for each of the nine economies in the sample. Lastly, they drew on existing estimates from the literature on the GDP sensitivity of credit loss rates (i.e. losses in relation to the stock of corporate debt) for banks.



A large and uneven recession

Corporate credit loss rates could rise substantially in sectors most affected by the pandemic. Unlike other crises, such as the 2007-2009 crisis, where manufacturing and construction declined significantly, the Covid crisis has been felt most acutely in entertainment, transportation, energy, and wholesale and retail trade. “The sectoral dispersion in credit loss rates is likely to be wider than during the Great Financial Crisis (GFC) of 2007–09 because of unevenness in sectoral economic conditions as well as the tendency for credit losses to rise more than proportionally with output shortfalls.”

## Unions Adv

**Supply Chains – 1NC**

**Supply chains are resilient.**

Daniel **Drezner 22**, International Politics Professor at Tufts University, "Where's My Stuff?" Reason, 01/01/2022, https://reason.com/2021/12/05/wheres-my-stuff/

While demand has been stronger than expected, supply in critical sectors coped better than expected. The predicted pandemic breakdowns in supply chains for food and medical supplies proved to be overstated. Surveys of logistical firms last year revealed that the pandemic had minimal effects on their operational capabilities. Even when it came to medicines and personal protective equipment, there were only minor disruptions after the initial shock in March 2020. Claims that the global supply chain in medical products rendered states vulnerable to weaponized interdependence proved to be wildly exaggerated. The pandemic affected service sectors such as tourism far more severely than any manufacturing sector. Indeed, Slate's Jordan Weissmann pointed out recently that "imports were up 5 percent year-over-year in September, and up 17 percent compared with the same time in 2019." This happened despite the decline in air passenger traffic, which restricted yet another means of shipping goods by air. Supply has increased—it's just that demand has surged even more.

The private sector is responding to market signals by ramping up production and ensuring multiple supply lines. Intel, Samsung, and TSMC are all spending tens of billions of dollars to build new chip foundries in the United States. Skyrocketing shipping prices are incentivizing additional construction of new container ships. The Wall Street Journal reports that in the first five months of 2021, there were nearly twice as many orders for new container ships as there were in all of 2019 and 2020 combined. To ensure holiday inventory, large retailers like Walmart and Home Depot have chartered their own container ships. Container shipping rates have already started to decline from September peaks.

**No impact, even if shocks occur.**

*---nearshoring: “practice of transferring a business operation to a nearby country”*

*---ally shoring: “program of sourcing services, goods, and materials with allies”*

Ian **Bremmer 22**, Ph.D. from Stanford University, B.A. from Tulane University, President of the Eurasia Group, Formerly worked at EastWest Institute, the World Policy Institute, and the Lawrence Livermore National Laboratory, Harold J. Newman Distinguished Fellow in Geopolitics at the Asia Pacific Society, Global Research Professor at New York University, knighted by the government of Italy, "Globalization Isn't Dead," Foreign Affairs, 10/25/2022, https://www.foreignaffairs.com/world/globalization-isnt-dead?utm\_medium=newsletters&utm\_source=fatoday&utm\_campaign=North%20Korea%20Raises%20the%20Nuclear%20Stakes&utm\_content=20221025&utm\_term=FA%20Today%20-%20112017

LEADERLESS WORLD

Although the partial decoupling of Russia and the West and China and the United States does not amount to deglobalization, it does indicate a shift in the nature of globalization. The global economic order is becoming more multipolar and fragmented in the absence of international leadership. This means that geopolitics will increasingly creep into economic calculations. The interdependencies and vulnerabilities exposed by COVID-19 and Russia’s invasion of Ukraine have brought economic security concerns to the fore. Countries and companies will increasingly attempt to make themselves more resilient to external shocks and insulate themselves from geoeconomic pressures through a combination of “ally shoring,” “nearshoring,” diversifying supply sources, and stockpiling. It is even possible that cross-border economic activity will splinter into geopolitical spheres of influence, as countries deepen their integration with friends and reduce their reliance on foes.

These forces point away from the aggressive globalization of recent decades, but not toward autarky. The benefits of scale and specialization are too great, and the costs of reversing globalization are too high. The global value chains that produce most modern goods are so complex and spread out that recreating them at a national level is virtually impossible. Western companies will increasingly pull back from China, no doubt, but for the most part they won’t bring production back home, instead shifting it to friendly, lower-wage nations such as Mexico and Vietnam. With few exceptions, reshoring and insourcing would prove excessively costly—and risky. As the shortage of baby formula in the United States demonstrated earlier this year, resilience is best achieved through diversification and spare capacity—not self-reliance.

These shifts in the patterns of global integration may well result in efficiency losses. Politics and geopolitics, after all, increase transaction costs and impede the optimal allocation of resources. But this is a small price to pay to ensure that globalization and its benefits endure. Striking the right balance between efficiency and security will result in a safer, more sustainable economic order.

**Supply Chains – 2NC**

**No supply chain ‘shocks’ impact. It assumes complete decoupling, which wouldn’t happen. The trade regime is systematically resilient and anti-fragile.**

Anthea **Roberts 23**, Professor of Global Governance, Australian National University; Founder, Dragonfly Thinking, "From Risk to Resilience," Foreign Affairs, https://www.foreignaffairs.com/world/risk-resilience-economics

These debates tend to frame the tradeoffs in black-and-white terms: globalization versus deglobalization and interdependence versus decoupling. But such binaries have never been realistic. The COVID-19 pandemic, Russia’s invasion of Ukraine, and rising tensions between the United States and China have all made Western companies and countries more wary of the risks associated with economic interdependence. Few, however, are prepared to make the sacrifices that full-scale decoupling would entail.

No wonder that “de-risking” has entered the policy lexicon as a softer alternative to decoupling. In January 2023, European Commission President Ursula von der Leyen coined the term as she laid out the EU’s strategy for reducing critical vulnerabilities while maintaining economic relations with China. The United States and the rest of the G-7 have since embraced de-risking, in part to assuage growing fears of a painful economic divorce from China. The idea is to differentiate connections that are high risk, for which selective decoupling is appropriate, from those that are low risk, for which it makes sense to maintain ties while also diversifying.

But inherent to de-risking is the idea that policymakers need to accept a zero-sum tradeoff between the risks and rewards of interconnection. There is a better way to understand the problem. Companies and countries need to embed calculations about risk and reward in a broader framework of systemic resilience — that is, the characteristics of a system that determine its ability to survive and thrive over time. Although resilience is commonly understood as the ability to withstand shocks and stressors, it is about more than just effectively responding to risks. It is also about evolving to better capture future rewards and cope with change.

To achieve systemic resilience, governments and firms must strike the right balance between risk and reward. If they always aim to minimize risks, they will not only reduce their rewards but also create new vulnerabilities over time. Likewise, if they always aim to maximize rewards in the short term, they may overlook existing risks and create new ones that could cost them dearly later. As a framework for weighing these competing objectives, systemic resilience can help policymakers and business executives think through questions of economic interdependence. It can help them decide when they should take risks in search of rewards and how they should prepare for potentially transformative changes — none more pressing than the coming energy transition.

THE BINARY BIAS

The rewards of economic connection can be immense. Global markets create extraordinary opportunities for economies of scale and enable companies and countries to develop their capabilities by specializing in what they do best and trading for the rest. Trade and investment treaties facilitate access to such markets, as do improvements in infrastructure, communications, and transportation. In the immediate aftermath of the Cold War, global supply chains proliferated as the rewards of international trade and investment seemed to far outstrip any potential risks. But by the first decade of the next millennium, the dangers of international connectedness had become manifest. The global financial crisis of 2008 stoked fears about financial contagion. China’s economic rise and growing assertiveness fueled Western capitals’ concerns about economic coercion. And Western sanctions made Moscow and Beijing more worried about weaponized interdependence.

Risks arise when a vulnerable system is exposed to threats or hazards. Interconnection exposes countries to intentional threats, such as economic coercion, as well as unintentional hazards, including financial crises and pandemics. Specialization creates additional vulnerabilities in the form of dependencies and concentration risks, such as when a country relies on critical goods manufactured by a foreign country or by a small group of suppliers in a region that is subject to extreme weather events. But because the same things that promise economic rewards often pose security risks, interdependence creates a dilemma. “Just in time” global supply chains that enable companies to reduce costs by storing minimal inventory can be tremendously efficient. But as the COVID-19 pandemic revealed, they can also leave societies dangerously exposed to disruptions, including in the supply of vital medical goods. The United States’ deep economic integration with China has produced enormous economic rewards, but it has also created vulnerabilities and dependencies for both countries, for example, in access to active pharmaceutical ingredients and semiconductors.

Interdependence does more than create tradeoffs between risk and reward; sometimes an increase in rewards can lead to a reduction in risks — a classic win-win outcome. Trade is often thought to promote peace and prosperity because rich and economically interdependent countries have powerful incentives to avoid war. But the effect is more ambiguous: interdependence may reduce the probability of conflict, but it can also make the consequences of conflict more dire if it does break out—since strong economic ties can be weaponized to devastating effect.

Efforts to mitigate one risk can also create or exacerbate others. Reshoring global supply chains may make countries less vulnerable to international disruptions while making them more vulnerable to domestic ones. Insulation from international supply chains can cause its own problems. For example, the United States generally manufactures enough baby formula to meet its own needs. But in 2022, a major U.S. baby formula plant was shut down because of bacterial contamination, causing nationwide shortages and forcing the Biden administration to take emergency actions to secure international supplies. People often struggle to acknowledge such tradeoffs because doing so is cognitively taxing. Rather than attempting to weigh the necessary multiple factors, people overwhelmed by that exercise tend to lump them together and simply declare that their chosen course of action is preferable on all counts. The psychologist Adam Grant calls this the “binary bias”—the tendency to collapse shades-of-gray spectrums into black-and-white categories. The result is tradeoff denialism: one side argues for globalization because it promotes peace and prosperity, while the other argues for decoupling on the grounds that it reduces the risks of coercion and stimulates the economy through reshoring.

The rhetorical shift from decoupling to de-risking is important because it represents an effort to move past the binary bias and tradeoff denialism. In this vein, Europe’s new economic security strategy, released by the European Commission in June 2023, begins by noting “the inherent tensions that exist between bolstering our economic security, and ensuring that the European Union continues to benefit from an open economy.” Policymakers must acknowledge those tensions instead of obfuscating them if their goal is to manage risk, not just minimize it.

In some sectors, the rewards from economic globalization are high and the risks are comparatively low. “Most of our trade in goods and services remains mutually beneficial and ‘un-risky,’” von der Leyen said in March 2023. Decoupling in these areas makes little sense. In other sectors, the risks arising from interdependence are high and the rewards are low. For example, trade in sensitive military technologies is too high a risk for the reward. In cases such as these, decoupling seems sensible. The hardest cases are where both the risks and rewards of economic interdependence are high. Here, focusing on systemic resilience is particularly helpful.

BOUNCING BACK

Resilience is a rich concept, with applications in engineering, psychology, disaster management, climate change adaptation, and more. In engineering, resilience describes the ability of a substance to return to its original shape after bending or stretching. Applied to people, communities, corporations, and countries, it describes the ability to absorb and adapt to changes. Scholars call this “socioecological resilience.”

Absorbing shocks means enduring them without incurring lasting damage or undergoing minor adaptations or major transformations. When countries stockpile semiconductors and other goods that are critical for manufacturing, they aim to create a cushion against supply chain disruptions. Building in redundancies such as multiple suppliers, some onshore and some offshore, helps systems weather shocks without suffering harm or disruption.

Adapting to shocks or stressors involves making incremental changes. When stocks of hand sanitizer ran low during the COVID-19 pandemic, some gin manufacturers adjusted their operations to produce needed supplies. Companies that specialized in three-dimensional printing began producing face masks and oxygen valves, while still others responded to shortages of medical supplies by finding alternative vendors. Adaptive changes are often small and short in duration. For example, schools shifted their classrooms online during the height of the pandemic, but most have since returned to in-person learning.

Transforming in the face of shocks is even more radical. It involves making more permanent structural changes that either reduce exposure and vulnerability to risks or increase the ability to capture rewards. Whereas adaptation can be achieved through incremental adjustments that largely preserve the status quo, transformation involves dramatic change to a new and better state. COVID-19 vaccines enabled governments to transform their response to the pandemic, fundamentally changing the risk-reward calculus for lockdowns and allowing countries to open their economies. Clean energy will prove even more transformative in the future. Governments will be able to use green technology to remake their economies in response to climate change.

These three modes of resilience — absorption, adaptation, and transformation — can operate alone or in combination. Often, they work on different timelines. For example, when China abruptly cut off exports of rare-earth elements to Japan in 2010 amid tensions in the East China Sea, Japan used all three modes of resilience to minimize harm. In the short term, it used careful inventory management to absorb the initial shock of the disruption and stretch existing supplies as far as possible. In the medium term, it adapted by recycling old rare-earth elements and finding substitutes for them. And in the long term, it took advantage of a transformation in the market for rare-earth minerals as new mines opened outside China.

THE RISE OF RESILIENCE

In the wake of the COVID-19 pandemic and Russia’s invasion of Ukraine, policymakers are beginning to appreciate the importance of resilience, which requires weighing polarities such as centralization and decentralization, diversification and concentration, and independence and interdependence. When it comes to free trade, for instance, U.S. Trade Representative Katherine Tai has said that it is “critical” to “incentivize resilience as opposed to just efficiency.” Sabine Weyand, the European Commission’s director general for trade, has identified a similar rebalancing of priorities in policymaking, arguing that “it is not just about efficiency in trade relations today; it’s about resilience.”

The key is to strike a balance between two extremes. Whereas optimizing for efficiency can create too many risks, optimizing for resilience can generate too few rewards. The scholar and former management consultant Roger Martin has characterized the dilemma well: “Pursuit of all resilience and no efficiency is as problematic as pursuit of efficiency with no resilience. The only difference is in the nature of the death.” By death, he meant the eventual demise of the system. Systems that are not resilient tend to die suddenly. They work well in the short term and sometimes the medium term, producing impressive rewards. But over time, they accumulate systemic vulnerabilities, eventually reaching a state of extreme fragility caused by factors such as excessive concentration and lack of diversity. When a shock disrupts such a system, its lack of absorptive and adaptive capacities can cause it to fail spectacularly. Inefficient systems, however, tend to die gradually as they compete unsuccessfully against more efficient ones.

To thrive over the long term, systems need to find a middle ground between efficiency and resilience and between the desire to minimize risks and maximize rewards. Countries that aim to minimize risks in the short term often leave themselves vulnerable to long-term threats. Just as children who grow up without being exposed to viruses can end up with weak immune systems, countries that have never experienced pandemics or other public health emergencies can be ill-prepared for them. During the COVID-19 pandemic, countries that had previously dealt with respiratory viruses such as SARS and MERS — for example, Singapore, South Korea, and Taiwan — mounted the most effective initial responses to the new disease. The risk analyst Nassim Nicholas Taleb uses the term “antifragile” to refer to systems that grow stronger when exposed to moderate levels of stress as opposed to ones that atrophy when they are shielded from all risks.

Likewise, countries that aim to maximize short-term rewards often make themselves vulnerable to future shocks. Maximizing rewards from just-in-time supply chains may seem economically efficient in the short term, but as the pandemic showed, it can eventually prove catastrophic. Similarly, countries that seek to accelerate their development by offshoring low-cost manufacturing and pivoting their domestic economies to high-end services could wind up forfeiting the industrial capacity needed to power the sectors of the future, including clean energy. And countries that rely heavily on their most profitable industry risk creating a monoculture that makes money in the short term but is vulnerable to the effects of environmental or market changes.

WALK THE LINE

So what is the right balance between peril and payoff? Where high risks promise high rewards, countries should abide by a simple rule: run the risk only when the relevant system has sufficient resilience to absorb, adapt, or transform if that risk becomes reality.

With 5G networks, for example, countries have taken clear steps toward decoupling because they perceive high risks and low resilience. The Chinese telecommunications giant Huawei is a cheap provider of leading 5G technologies that have the potential to generate strong economic rewards. But for many Western governments, the risks that the Chinese government would abuse access to 5G networks to engage in espionage or sabotage were too high to discount. Laying 5G networks is also expensive, and 5G network providers are almost always the service providers. These features of the technology mean that it would be extremely difficult for a government to adapt and find a new 5G supplier should Beijing weaponize Huawei’s networks. In areas where countries cannot adapt during a crisis, they often seek to reduce their exposure, even if that means forsaking possible rewards.

By contrast, where countries have sufficient resilience — for instance, in the trade of basic commodities, where global markets are deep and diversified — they are more likely to maintain interdependence, despite the risks of economic coercion. Many Australian exporters depended heavily on the Chinese market before Beijing instituted trade bans and other coercive economic measures in 2020, following Australia’s call for an inquiry into the origins of COVID-19. But not all these exporters proved resilient. Those selling high-end products such as lobsters and fine wines struggled to find alternative markets, whereas those trading basic commodities such as coal, barley, and cotton were able to adapt and redirect their inventory to global markets.

It is telling that Australia’s response to Chinese economic coercion was not to decouple. Even after the risks had been laid bare, the potential rewards of continued economic engagement were too great. Australia continued to trade in goods that were unaffected by the bans, such as iron ore, while seeking to reopen export markets with China in the industries that were affected. But the Australian government also advised exporters to adopt a more diversified “China plus” strategy to make pivoting markets easier in the event of future disruptions. When resilience is high, countries can take greater risks in pursuit of rewards because they have something to fall back on if their fears are realized. For many traded goods, including agricultural products and raw resources, diversification rather than decoupling is the more practical and prudent path.

Another advantage of systemic resilience is that it can help governments and firms proactively adapt to changing circumstances. Greater resilience often makes it easier to maintain something close to the status quo. But sometimes the status quo is the problem, in which case more transformational approaches are needed to ensure long-term resilience. That is why many Western countries are turning to industrial policy — official encouragement of specific domestic economic sectors — as they attempt to address climate change and heightened threat perceptions from increased geopolitical tensions.

In some cases, governments are using industrial policy to promote transformative innovations that will reduce risks and build resilience. For example, the U.S. government has invested in developing Open Radio Access Networks, new mobile network technology that runs on the cloud and would break the connection between 5G network providers and 5G service providers, allowing users to mix and match providers. If successful, this technology would reduce some of the risks inherent in 5G networks and increase resilience. The 5G markets would be more open and competitive, making it easier for countries and companies to switch service providers if networks are weaponized.

In other cases, governments are using industrial policy so they can reap future rewards as well as limit risks. The United States is subsidizing the development and deployment of green technologies not just to address the dangers of a changing climate but also to ensure that American companies capture a sizable share of important emerging markets, including the one for electric vehicles. The CHIPS and Science Act, which aims to boost the domestic semiconductor industry; the Inflation Reduction Act, which made historic investments in clean energy; and the Infrastructure Investment and Jobs Act, which has upgraded infrastructure in areas such as bridges, rail, and broadband are also designed to transform the U.S. economy and society. These laws, passed in 2021 and 2022, reduce supply chain vulnerabilities; provide incentives to manufacturers of renewable energy, batteries, electric vehicles, and semiconductors; and enhance access by building a national network of electric vehicle chargers and overhauling the nation’s power grid to improve clean energy transmission.

**Supply chains have diversified.**

Alicia **Wallace 23**, Knight-Bagehot Fellow at Columbia University, Senior Journalist at CNN Business, Degree in Economics from Columbia University, citing Zac Rogers, Assistant Professor of Operations and Supply Chain Management at Colorado State University, "Covid broke supply chains. Now on the mend, can they withstand another shock?" CNN Business, 01/16/2023, https://www.cnn.com/2023/01/16/economy/supply-chain-outlook-2023/index.html

Reshoring and smoother flows

Helping that along is that supply chains are far more resilient now than they were at the end of 2019, Rogers said.

“In 2019, we had basically all of our chips in on one hand, which was, things are built in East Asia, come on a boat through the ports in Southern California, they get on trains that go to Chicago and then on other trains or trucks to distribute to the East Coast,” he said.

And while it’s nearly impossible to divorce from China, companies are embracing different paths for the supply chain, whether it be in Vietnam, Bangladesh, Central America or domestically, Rogers said.

“Because of that, supply chains are not as brittle as they were three years ago,” he said. “And so if there is another shock — particularly if there’s a China-centric shock — I think we’ll be able to absorb it a little better than we had. … But you can’t price in something like the invasion of Ukraine or a viral outbreak that shuts down the world — no systems are built to handle that smoothly.”

Rogers is also a researcher and co-author of the Logistics Managers’ Index, a monthly survey of supply chain executives conducted by a team of university researchers and the Council of Supply Chain Management Professionals.

The index’s December reading — which measures inventory levels and costs; warehousing capacity; utilization and prices; and transportation capacity, utilization and prices — came in at 54.6, a 1-point increase following eight months of declines.

The majority of the LMI metrics were in the range of 40s, 50s and 60s, Rogers said, noting it’s the first time since the onset of the pandemic that the indices haven’t been in the 70s or 80s.