

117TH CONGRESS  
1ST SESSION

**S.** \_\_\_\_\_

To require the Board of Governors of the Federal Reserve System, in consultation with the heads of other relevant Federal agencies, to develop and conduct financial risk analyses relating to climate change, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

Mr. SCHATZ introduced the following bill; which was read twice and referred to the Committee on \_\_\_\_\_

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**A BILL**

To require the Board of Governors of the Federal Reserve System, in consultation with the heads of other relevant Federal agencies, to develop and conduct financial risk analyses relating to climate change, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Climate Change Finan-  
5       cial Risk Act of 2021”.

6       **SEC. 2. SENSE OF CONGRESS.**

7       It is the sense of Congress that—

1           (1) if current trends continue, average global  
2           temperatures are likely to reach 1.5 degrees Celsius  
3           above pre-industrial levels between 2030 and 2050;

4           (2) global temperature rise has already resulted  
5           in an increased number of heavy rainstorms, coastal  
6           flooding events, heat waves, wildfires, and other ex-  
7           treme events;

8           (3) since 1980—

9           (A) the number of extreme weather events  
10          per year that cost the people of the United  
11          States more than \$1,000,000,000 per event, ac-  
12          counting for inflation, has increased signifi-  
13          cantly; and

14          (B) the total cost of extreme weather  
15          events in the United States has exceeded  
16          \$1,875,000,000,000;

17          (4) as physical impacts from climate change are  
18          manifested across multiple sectors of the economy of  
19          the United States—

20          (A) climate-related economic risks will con-  
21          tinue to increase;

22          (B) climate-related extreme weather events  
23          will disrupt energy and transportation systems  
24          in the United States, which will result in more  
25          frequent and longer-lasting power outages, fuel

1 shortages, and service disruptions in critical  
2 sectors across the economy of the United  
3 States;

4 (C) projected increases in extreme heat  
5 conditions will lead to decreases in labor pro-  
6 ductivity in agriculture, construction, and other  
7 critical economic sectors;

8 (D) food and livestock production will be  
9 impacted in regions that experience increases in  
10 heat and drought and small rural communities  
11 will struggle to find the resources needed to  
12 adapt to those changes; and

13 (E) sea level rise and more frequent and  
14 intense extreme weather events will—

15 (i) increasingly disrupt and damage  
16 private property and critical infrastructure;  
17 and

18 (ii) drastically increase insured and  
19 uninsured losses;

20 (5) advances in energy efficiency and renewable  
21 energy technologies, as well as climate policies and  
22 shifting societal preferences, will—

23 (A) reduce global demand for fossil fuels;  
24 and

1 (B) expose transition risks for fossil fuel  
2 companies and investors, and for companies  
3 and investors in other energy-intensive indus-  
4 tries, which could include trillions of dollars of  
5 stranded assets around the world;

6 (6) climate change poses uniquely far-reaching  
7 risks to the financial services industry, including  
8 with respect to credit, counterparty, and market  
9 risks, due to the number of sectors and locations im-  
10 pacted and the potentially irreversible scale of dam-  
11 age;

12 (7) financial institutions must take a consistent  
13 approach to assessing climate-related financial risks  
14 and incorporating those risks into existing risk man-  
15 agement practices, which should be informed by sce-  
16 nario analysis;

17 (8) the Board of Governors conducts annual as-  
18 sessments of the capital adequacy and capital plan-  
19 ning practices of the largest and most complex bank-  
20 ing organizations (referred to in this section as  
21 “stress tests”) in order to promote a safe, sound,  
22 and efficient banking and financial system;

23 (9) as of the date of enactment of this Act, the  
24 stress tests conducted by the Board of Governors are

1 not designed to reflect the physical risks or transi-  
2 tion risks posed by climate change;

3 (10) the Board of Governors—

4 (A) has the authority to take into account  
5 the potentially systemic impact of climate-re-  
6 lated risks on the financial system; and

7 (B) should develop new analytical tools  
8 with longer time horizons to accurately assess  
9 and manage the risks described in subpara-  
10 graph (A); and

11 (11) the Climate-Related Market Risk Sub-  
12 committee of the Commodity Futures Trading Com-  
13 mission has identified the importance of researching  
14 “climate-related ‘sub-systemic’ shocks to financial  
15 markets and institutions in particular sectors and  
16 regions of the United States”.

17 **SEC. 3. DEFINITIONS.**

18 In this Act:

19 (1) BANK HOLDING COMPANY.—The term  
20 “bank holding company” has the meaning given the  
21 term in section 102(a) of the Financial Stability Act  
22 of 2010 (12 U.S.C. 5311(a)).

23 (2) BOARD OF GOVERNORS.—The term “Board  
24 of Governors” means the Board of Governors of the  
25 Federal Reserve System.

1           (3) CLIMATE SCIENCE LEADS.—The term “cli-  
2       mate science leads” means—

3           (A) the Administrator of the National Oce-  
4       anic and Atmospheric Administration;

5           (B) the Administrator of the Environ-  
6       mental Protection Agency;

7           (C) the Secretary of Energy;

8           (D) the Administrator of the National Aer-  
9       onautics and Space Administration;

10          (E) the Director of the United States Geo-  
11       logical Survey;

12          (F) the Secretary of the Interior; and

13          (G) the head of any other Federal agency  
14       that the Board of Governors determines to be  
15       appropriate.

16          (4) COVERED ENTITY.—The term “covered en-  
17       tity” means—

18           (A) a nonbank financial company or bank  
19       holding company that has not less than  
20       \$250,000,000,000 in total consolidated assets;  
21       and

22           (B) a nonbank financial company or bank  
23       holding company—

1 (i) that has not less than  
2 \$100,000,000,000 in total consolidated as-  
3 sets; and

4 (ii) with respect to which the Board of  
5 Governors determines the application of  
6 subparagraph (C) of section 165(i)(1) of  
7 the Financial Stability Act of 2010 (12  
8 U.S.C. 5365(i)(1)), as added by section 6  
9 of this Act, is appropriate—

10 (I) to—

11 (aa) prevent or mitigate  
12 risks to the financial stability of  
13 the United States; or

14 (bb) promote the safety and  
15 soundness of the company; and

16 (II) after taking into consider-  
17 ation—

18 (aa) the capital structure,  
19 riskiness, complexity, financial  
20 activities, and size of the com-  
21 pany, including the financial ac-  
22 tivities of any subsidiary of the  
23 company; and

24 (bb) any other risk-related  
25 factor that the Board of Gov-

1 errors determines to be appro-  
2 priate.

3 (5) NONBANK FINANCIAL COMPANY.—The term  
4 “nonbank financial company” has the meaning given  
5 the term in section 102(a)(4)(C) of the Financial  
6 Stability Act of 2010 (12 U.S.C. 5311(a)(4)(C)).

7 (6) PHYSICAL RISKS.—The term “physical  
8 risks” means financial risks to assets, locations, op-  
9 erations, or value chains that result from exposure  
10 to physical climate-related effects, including—

11 (A) increased average global temperatures;

12 (B) increased severity and frequency of ex-  
13 treme weather events;

14 (C) increased flooding;

15 (D) sea level rise;

16 (E) ocean acidification;

17 (F) increased severity and frequency of  
18 heat waves;

19 (G) increased frequency of wildfires;

20 (H) decreased arability of farmland; and

21 (I) decreased availability of fresh water.

22 (7) SURVEYED ENTITY.—The term “surveyed  
23 entity” means a nonbank financial company super-  
24 vised by the Board of Governors, or a bank holding  
25 company, that—



1 (A) has total consolidated assets of not less  
2 than \$10,000,000,000; and

3 (B) is not a covered entity.

4 (8) TECHNICAL DEVELOPMENT GROUP.—The  
5 term “Technical Development Group” means the  
6 Climate Risk Scenario Technical Development Group  
7 established under section 4.

8 (9) TRANSITION RISKS.—The term “transition  
9 risks” means financial risks that are attributable to  
10 climate change mitigation and adaptation, including  
11 efforts to reduce greenhouse gas emissions and  
12 strengthen resilience to the impacts of climate  
13 change, including—

14 (A) costs relating to—

15 (i) international treaties and agree-  
16 ments;

17 (ii) Federal, State, and local policies;

18 (iii) new technologies;

19 (iv) changing markets;

20 (v) reputational impacts relevant to  
21 changing consumer behavior; and

22 (vi) litigation; and

23 (B) a loss in the value, or the stranding,  
24 of assets due to any of the costs described in  
25 clauses (i) through (vi) of subparagraph (A).

1 (10) VALUE CHAIN.—The term “value chain”—

2 (A) means the total lifecycle of a product  
3 or service, both before and after production of  
4 the product or service, as applicable; and

5 (B) may include the sourcing of materials,  
6 production, and disposal with respect to the  
7 product or service described in subparagraph  
8 (A).

9 **SEC. 4. CLIMATE RISK SCENARIO TECHNICAL DEVELOP-**  
10 **MENT GROUP.**

11 (a) ESTABLISHMENT.—The Board of Governors shall  
12 establish a technical advisory group to be known as the  
13 Climate Risk Scenario Technical Development Group.

14 (b) MEMBERSHIP.—

15 (1) COMPOSITION.—The Technical Develop-  
16 ment Group shall be composed of 10 members—

17 (A) 5 of whom shall be climate scientists;  
18 and

19 (B) 5 of whom shall be economists, with  
20 expertise in either the United States financial  
21 system or the risks posed by climate change.

22 (2) SELECTION.—The Board of Governors shall  
23 select the members of the Technical Development  
24 Group after consultation with the climate science  
25 leads.

1 (c) DUTIES.—The Technical Development Group  
2 shall—

3 (1) provide recommendations to the Board of  
4 Governors regarding the development of, and up-  
5 dates to, the climate change risk scenarios under  
6 section 5;

7 (2) after the establishment of the climate  
8 change risk scenarios under section 5, determine the  
9 financial and economic risks resulting from those  
10 scenarios;

11 (3) make any final work product and any data  
12 sets or other inputs used in the development of the  
13 final work product, publicly available; and

14 (4) provide technical assistance to covered enti-  
15 ties in assessing physical risks or transition risks.

16 (d) INAPPLICABILITY OF FEDERAL ADVISORY COM-  
17 MITTEE ACT.—The Federal Advisory Committee Act (5  
18 U.S.C. App.) shall not apply with respect to the Technical  
19 Development Group.

20 **SEC. 5. DEVELOPMENT AND UPDATING OF CLIMATE**  
21 **CHANGE RISK SCENARIOS.**

22 (a) IN GENERAL.—

23 (1) INITIAL DEVELOPMENT.—Not later than 1  
24 year after the date of enactment of this Act, the  
25 Board of Governors, in coordination with the climate

1 science leads, and taking into consideration the rec-  
2 ommendations of the Technical Development Group,  
3 shall develop 3 separate climate change risk sce-  
4 narios as follows:

5 (A) One scenario that assumes an average  
6 increase in global temperatures of 1.5 degrees  
7 Celsius above pre-industrial levels.

8 (B) One scenario that assumes an average  
9 increase in global temperatures of 2 degrees  
10 Celsius above pre-industrial levels.

11 (C) One scenario that—

12 (i) assumes the likely and very likely  
13 average increase in global temperatures  
14 that can be expected, taking into consider-  
15 ation the extent to which national policies  
16 and actions relating to climate change have  
17 been implemented, as of the date on which  
18 the scenario is developed, or on which the  
19 scenario is updated under paragraph (2),  
20 as applicable; and

21 (ii) does not take into consideration  
22 commitments for policies and actions relat-  
23 ing to climate change that, as of the appli-  
24 cable date described in clause (i), have not  
25 been implemented.

1           (2) UPDATES.—After the initial development of  
2 the climate change risk scenarios under paragraph  
3 (1), the Board of Governors, in coordination with  
4 the climate science leads, and taking into consider-  
5 ation the recommendations of the Technical Devel-  
6 opment Group, shall update those scenarios once  
7 every 3 years.

8           (3) INTERNATIONAL COORDINATION.—In devel-  
9 oping and updating the 3 scenarios required under  
10 this subsection, the Board of Governors shall take  
11 into consideration analytic tools and best practices  
12 developed by international banking supervisors relat-  
13 ing to climate risks and scenario analysis in an ef-  
14 fort to develop consistent and comparable data-driv-  
15 en scenarios.

16           (4) RECOMMENDATIONS.—If the Technical De-  
17 velopment Group determines that the average in-  
18 crease in global temperatures described in subpara-  
19 graph (A) or (B) of paragraph (1) is no longer sci-  
20 entifically valid, the Technical Development Group  
21 may recommend that the Board of Governors, in co-  
22 ordination with the climate science leads, update the  
23 average increase in global temperatures described in  
24 the applicable subparagraph to reflect the most cur-  
25 rent assessment of climate change science.

1 (b) CONSIDERATIONS.—In developing and updating  
2 each of the 3 scenarios required under subsection (a), the  
3 Board of Governors, in coordination with the climate  
4 science leads, shall account for physical risks and transi-  
5 tion risks that may disrupt business operations across the  
6 global economy, including through—

7 (1) disruptions with respect to—

8 (A) the sourcing of materials;

9 (B) production; and

10 (C) the disposal of products and services;

11 (2) changes in the availability and prices of raw  
12 materials and other inputs;

13 (3) changes in agricultural production and with  
14 respect to food security;

15 (4) direct damages to fixed assets;

16 (5) increases in costs associated with insured or  
17 uninsured losses;

18 (6) changes in asset values;

19 (7) impacts on—

20 (A) aggregate demand for products and  
21 services;

22 (B) labor productivity;

23 (C) asset liquidity; and

24 (D) credit availability;

1 (8) mass migration and increases in disease and  
2 mortality rates;

3 (9) international conflict, as such conflict re-  
4 lates to global economic activity and output; and

5 (10) changes in any other microeconomic or  
6 macroeconomic condition that the Board of Gov-  
7 ernors, in coordination with the climate science  
8 leads, determines to be relevant.

9 **SEC. 6. CLIMATE-RELATED ENHANCED SUPERVISION FOR**  
10 **CERTAIN NONBANK FINANCIAL COMPANIES**  
11 **AND BANK HOLDING COMPANIES.**

12 Section 165(i)(1) of the Financial Stability Act of  
13 2010 (12 U.S.C. 5365(i)(1)) is amended—

14 (1) in subparagraph (B)(i), by inserting “except  
15 as provided in subparagraph (C)(ii)(I),” before  
16 “shall provide”; and

17 (2) by adding at the end the following:

18 “(C) BIENNIAL TESTS REQUIRED.—

19 “(i) DEFINITIONS.—In this subpara-  
20 graph—

21 “(I) the term ‘capital distribu-  
22 tion’ has the meaning given the term  
23 in section 225.8(d)(4) of title 12,  
24 Code of Federal Regulations, as in ef-

1           fect on the date of enactment of this  
2           subparagraph;

3                   “(II) the term ‘capital policy’ has  
4           the meaning given the term in section  
5           225.8(d)(7) of title 12, Code of Fed-  
6           eral Regulations, as in effect on the  
7           date of enactment of this subpara-  
8           graph; and

9                   “(III) the terms ‘climate science  
10          leads’ and ‘covered entity’ have the  
11          meanings given those terms in section  
12          3 of the Climate Change Financial  
13          Risk Act of 2021.

14          “(ii) TESTS.—

15                   “(I) IN GENERAL.—Subject to  
16          the other requirements of this clause,  
17          the Board of Governors, in coordina-  
18          tion with the appropriate primary fi-  
19          nancial regulatory agencies and the  
20          climate science leads, shall conduct bi-  
21          ennial analyses in which each covered  
22          entity is subject to evaluation, under  
23          an adverse set of conditions, of wheth-  
24          er that covered entity has the capital,  
25          on a total consolidated basis, nec-



1            necessary to absorb financial losses that  
2            would arise under each climate change  
3            risk scenario developed under section  
4            5 of the Climate Change Financial  
5            Risk Act of 2021.

6            “(II) INITIAL TESTS.—With re-  
7            spect to each of the first 3 analyses  
8            conducted under subclause (I)—

9                    “(aa) the covered entity to  
10                   which such an analysis applies  
11                   shall not be subject to any ad-  
12                   verse consequences as a result of  
13                   the analysis; and

14                   “(bb) the Board of Gov-  
15                   ernors shall—

16                            “(AA) not later than 60  
17                            days after the date on which  
18                            the Board of Governors  
19                            completes each such anal-  
20                            ysis, make a summary of the  
21                            analysis publicly available;  
22                            and

23                            “(BB) submit a copy of  
24                            the results of the analysis to  
25                            the Committee on Banking,

1                   Housing, and Urban Affairs  
2                   of the Senate and the Com-  
3                   mittee on Financial Services  
4                   of the House of Representa-  
5                   tives.

6                   “(III) CLIMATE RISK REMEDI-  
7                   ATION PLAN.—

8                   “(aa) IN GENERAL.—Except  
9                   with respect to the first analysis  
10                  conducted under subclause (I),  
11                  each covered entity shall, before  
12                  being subject to an analysis  
13                  under that subclause, submit to  
14                  the Board of Governors a remedi-  
15                  ation plan with respect to climate  
16                  risk planning (referred to in this  
17                  subclause as a ‘climate risk reme-  
18                  diation plan’), which shall be  
19                  based on the results of the most  
20                  recently conducted analysis of the  
21                  covered entity under that sub-  
22                  clause.

23                  “(bb) CONTENTS.—Each cli-  
24                  mate risk remediation plan re-



1 capital above each minimum  
2 regulatory capital ratio on a  
3 pro forma basis under the  
4 adverse set of conditions de-  
5 scribed in subclause (I);

6 “(BB) the climate risk  
7 remediation plan is other-  
8 wise not reasonable or ap-  
9 propriate;

10 “(CC) the assumptions  
11 and analysis underlying the  
12 climate risk remediation  
13 plan, or the methodologies  
14 and practices that support  
15 the climate risk remediation  
16 plan, are not reasonable or  
17 appropriate; or

18 “(DD) the climate risk  
19 remediation plan otherwise  
20 constitutes an unsafe or un-  
21 sound practice.

22 “(dd) GENERAL DISTRIBU-  
23 TION LIMITATION.—If the Board  
24 of Governors, under item (cc),  
25 objects to a climate risk remedi-

1                    ation plan submitted by a cov-  
2                    ered entity under item (aa), the  
3                    covered entity may not make any  
4                    capital distribution, other than a  
5                    capital distribution arising from  
6                    the issuance of a regulatory cap-  
7                    ital instrument eligible for inclu-  
8                    sion in the numerator of a min-  
9                    imum regulatory capital ratio.”.

10 **SEC. 7. SUB-SYSTEMIC EXPLORATORY SURVEY.**

11           (a) DEVELOPMENT OF SURVEY.—The Board of Gov-  
12 ernors, in consultation with the Comptroller of the Cur-  
13 rency and the Board of Directors of the Federal Deposit  
14 Insurance Corporation, shall develop an exploratory survey  
15 to assess—

16                   (1) the ability of surveyed entities, including ag-  
17                   ricultural banks, community banks, and other finan-  
18                   cial institutions with a significant concentration of  
19                   business activities in certain geographical areas or  
20                   industries, to withstand each climate risk scenario  
21                   developed under section 5; and

22                   (2) how surveyed entities plan to make adapta-  
23                   tions to the business models and capital planning of  
24                   those entities in response to the risks presented in

1 each climate change risk scenario developed under  
2 section 5.

3 (b) ADMINISTRATION OF SURVEY.—

4 (1) INITIAL ADMINISTRATION.—

5 (A) IN GENERAL.—Not later than 1 year  
6 after the completion of the first analysis under  
7 subparagraph (C) of section 165(i)(1) of the Fi-  
8 nancial Stability Act of 2010 (12 U.S.C.  
9 5365(i)(1)), as added by section 6 of this Act,  
10 the Board of Governors shall administer the  
11 survey developed under subsection (a) to each  
12 surveyed entity.

13 (B) ASSESSMENT AND REPORT.—Not later  
14 than 18 months after the date on which the  
15 Board of Governors completes the administra-  
16 tion of the survey under subparagraph (A), the  
17 Board of Governors shall—

18 (i) assess the responses to the survey;

19 and

20 (ii) publicly release a report that sum-  
21 marizes the results of the survey, which  
22 shall include the analysis of the Board of  
23 Governors regarding whether the planned  
24 actions of the surveyed entities to which

1 the survey was administered, in the aggregate—  
2 gate—

3 (I) are plausible; and

4 (II) would be effective.

5 (2) SUBSEQUENT ADMINISTRATION.—

6 (A) IN GENERAL.—After the release of the  
7 report required under paragraph (1)(B)(ii), the  
8 Board of Governors shall, on a biennial basis,  
9 administer to each surveyed entity the survey  
10 developed under subsection (a).

11 (B) SUBSEQUENT REPORT.—Not later  
12 than 180 days after the date on which each sur-  
13 vey administered under subparagraph (A) is  
14 completed, the Board of Governors shall pub-  
15 licly release a report that summarizes the re-  
16 sults of the survey, which shall include the anal-  
17 ysis described in paragraph (1)(B)(ii).

18 (c) EFFECT OF SURVEY PARTICIPATION.—

19 (1) IN GENERAL.—With respect to a surveyed  
20 entity to which any survey under this section is ad-  
21 ministered—

22 (A) subject to paragraph (2), the entity  
23 shall not be subject to any adverse consequence  
24 on the basis of a response provided by the enti-  
25 ty to the survey; and

1 (B) in any report released with respect to  
2 the survey, the Board of Governors may not  
3 identify any individual response submitted by  
4 the entity to the survey.

5 (2) RULE OF CONSTRUCTION.—Nothing in  
6 paragraph (1)(A) may be construed to preclude the  
7 Board of Governors from pursuing an enforcement  
8 action against a surveyed entity because of a viola-  
9 tion discovered by the Board of Governors during an  
10 examination of the surveyed entity that is inde-  
11 pendent of a survey administered under this section.

12 **SEC. 8. FINANCIAL STABILITY OVERSIGHT COUNCIL.**

13 (a) IN GENERAL.—The Financial Stability Oversight  
14 Council shall establish a committee of the Council that  
15 shall support the Council in identifying risks to, and in  
16 responding to emerging threats to, the stability of the  
17 United States financial system as a result of climate  
18 change.

19 (b) RESPONSIBILITIES.—

20 (1) COMMITTEE.—The committee established  
21 under subsection (a) shall, not later than 1 year  
22 after the completion of the first analysis required  
23 under subparagraph (C) of section 165(i)(1) of the  
24 Financial Stability Act of 2010 (12 U.S.C.  
25 5365(i)(1)), as added by section 6 of this Act, and



1 in consultation with the Office of Financial Re-  
2 search, submit to Congress an assessment of the risk  
3 posed by climate change to the efficiency, competi-  
4 tiveness, and stability of the United States financial  
5 system as a whole.

6 (2) COUNCIL.—For each year after the year in  
7 which the assessment required under paragraph (1)  
8 is submitted, the Financial Stability Oversight Coun-  
9 cil shall include in the annual report required under  
10 section 112(a)(2)(N) of the Financial Stability Act  
11 of 2010 (12 U.S.C. 5322(a)(2)(N)) an update to  
12 that assessment.

13 (c) COMPOSITION.—The committee established under  
14 subsection (a) shall be composed of—

15 (1) the Chairman of the Board of Governors;

16 (2) the Secretary of the Treasury;

17 (3) the Comptroller of the Currency;

18 (4) the Chairperson of the Board of Directors  
19 of the Federal Deposit Insurance Corporation;

20 (5) the Chairman of the Securities and Ex-  
21 change Commission;

22 (6) the Chairperson of the Commodity Futures  
23 Trading Commission; and

1           (7) any other voting or nonvoting members that  
2           the Financial Stability Oversight Council determines  
3           to be appropriate.