

116TH CONGRESS  
1ST SESSION

# S. 2903

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

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## IN THE SENATE OF THE UNITED STATES

NOVEMBER 20, 2019

Mr. SCHATZ (for himself, Ms. WARREN, Mr. VAN HOLLEN, Mr. WHITEHOUSE, Mr. BENNET, Mr. MERKLEY, Mr. BOOKER, Ms. KLOBUCHAR, Ms. HARRIS, and Mrs. MURRAY) introduced the following bill; which was read twice and referred to the Committee on Banking, Housing, and Urban Affairs

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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 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 2019”.

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          \$1,100,000,000,000;

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, which could include  
3 trillions of dollars of stranded assets around the  
4 world;

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

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

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

22 (9) as of the date of enactment of this Act, the  
23 stress tests conducted by the Board of Governors are  
24 not designed to reflect the physical risks or transi-  
25 tion risks posed by climate change; and

1 (10) the Board of Governors—

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

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

9 **SEC. 3. DEFINITIONS.**

10 In this Act:

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

15 (2) **BOARD OF GOVERNORS.**—The term “Board  
16 of Governors” means the Board of Governors of the  
17 Federal Reserve System.

18 (3) **CLIMATE SCIENCE LEADS.**—The term “cli-  
19 mate science leads” means—

20 (A) the Administrator of the National Oce-  
21 anic and Atmospheric Administration;

22 (B) the Administrator of the Environ-  
23 mental Protection Agency;

24 (C) the Secretary of Energy;

1 (D) the Administrator of the National Aer-  
2 nautics and Space Administration;

3 (E) the Director of the United States Geo-  
4 logical Survey;

5 (F) the Secretary of the Interior; and

6 (G) the head of any other Federal agency  
7 that the Board of Governors determines to be  
8 appropriate.

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

11 (A) a nonbank financial company or bank  
12 holding company that has not less than  
13 \$250,000,000,000 in total consolidated assets;  
14 and

15 (B) a nonbank financial company or bank  
16 holding company—

17 (i) that has not less than  
18 \$100,000,000,000 in total consolidated as-  
19 sets; and

20 (ii) with respect to which the Board of  
21 Governors determines the application of  
22 subparagraph (C) of section 165(i)(1) of  
23 the Financial Stability Act of 2010 (12  
24 U.S.C. 5365(i)(1)), as added by section 6  
25 of this Act, is appropriate—

1 (I) to—

2 (aa) prevent or mitigate  
3 risks to the financial stability of  
4 the United States; or

5 (bb) promote the safety and  
6 soundness of the company; and

7 (II) after taking into consider-  
8 ation—

9 (aa) the capital structure,  
10 riskiness, complexity, financial  
11 activities, and size of the com-  
12 pany, including the financial ac-  
13 tivities of any subsidiary of the  
14 company; and

15 (bb) any other risk-related  
16 factor that the Board of Gov-  
17 ernors determines to be appro-  
18 priate.

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

23 (6) PHYSICAL RISKS.—The term “physical  
24 risks” means financial risks to assets, locations, op-

1 erations, or value chains that result from exposure  
2 to physical climate-related effects, including—

3 (A) increased average global temperatures;

4 (B) increased severity and frequency of ex-  
5 treme weather events;

6 (C) increased flooding;

7 (D) sea level rise;

8 (E) ocean acidification;

9 (F) increased severity and frequency of  
10 heat waves;

11 (G) increased frequency of wildfires;

12 (H) decreased arability of farmland; and

13 (I) decreased availability of fresh water.

14 (7) TECHNICAL DEVELOPMENT GROUP.—The  
15 term “Technical Development Group” means the  
16 Climate Risk Scenario Technical Development Group  
17 established under section 4.

18 (8) TRANSITION RISKS.—The term “transition  
19 risks” means financial risks that are attributable to  
20 climate change mitigation and adaptation, including  
21 efforts to reduce greenhouse gas emissions and  
22 strengthen resilience to the impacts of climate  
23 change, including—

24 (A) costs relating to—



- 1 (i) international treaties and agree-  
 2 ments;
- 3 (ii) Federal, State, and local policies;
- 4 (iii) new technologies;
- 5 (iv) changing markets;
- 6 (v) reputational impacts relevant to  
 7 changing consumer behavior; and
- 8 (vi) litigation; and

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

12 (9) VALUE CHAIN.—The term “value chain”—

13 (A) means the total lifecycle of a product  
 14 or service, both before and after production of  
 15 the product or service, as applicable; and

16 (B) may include the sourcing of materials,  
 17 production, and disposal with respect to the  
 18 product or service described in subparagraph  
 19 (A).

20 **SEC. 4. CLIMATE RISK SCENARIO TECHNICAL DEVELOP-**  
 21 **MENT GROUP.**

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

25 (b) MEMBERSHIP.—

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

3                   (A) 5 of whom shall be climate scientists;  
4           and

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

8           (2) SELECTION.—The Board of Governors shall  
9           select the members of the Technical Development  
10          Group after consultation with the climate science  
11          leads.

12          (c) DUTIES.—The Technical Development Group  
13          shall—

14                  (1) provide recommendations to the Board of  
15          Governors regarding the development of, and up-  
16          dates to, the climate change risk scenarios under  
17          section 5;

18                  (2) after the establishment of the climate  
19          change risk scenarios under section 5, determine the  
20          financial and economic risks resulting from those  
21          scenarios;

22                  (3) make any final work product and any data  
23          sets or other inputs used in the development of the  
24          final work product, publicly available; and

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

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

7 **SEC. 5. DEVELOPMENT AND UPDATING OF CLIMATE**  
8 **CHANGE RISK SCENARIOS.**

9 (a) IN GENERAL.—

10 (1) INITIAL DEVELOPMENT.—Not later than 1  
11 year after the date of enactment of this Act, the  
12 Board of Governors, in coordination with the climate  
13 science leads, and taking into consideration the rec-  
14 ommendations of the Technical Development Group,  
15 shall develop 3 separate climate change risk sce-  
16 narios as follows:

17 (A) One scenario that assumes an average  
18 increase in global temperatures of 1.5 degrees  
19 Celsius above pre-industrial levels.

20 (B) One scenario that assumes an average  
21 increase in global temperatures of 2 degrees  
22 Celsius above pre-industrial levels.

23 (C) One scenario that—

24 (i) assumes the likely and very likely  
25 average increase in global temperatures

1 that can be expected, taking into consider-  
2 ation the extent to which national policies  
3 and actions relating to climate change have  
4 been implemented, as of the date on which  
5 the scenario is developed, or on which the  
6 scenario is updated under paragraph (2),  
7 as applicable; and

8 (ii) does not take into consideration  
9 commitments for policies and actions relat-  
10 ing to climate change that, as of the appli-  
11 cable date described in clause (i), have not  
12 been implemented.

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

20 (3) INTERNATIONAL COORDINATION.—In devel-  
21 oping and updating the 3 scenarios required under  
22 this subsection, the Board of Governors shall take  
23 into consideration analytic tools and best practices  
24 developed by international banking supervisors relat-  
25 ing to climate risks and scenario analysis in an ef-

1 fort to develop consistent and comparable data-driv-  
2 en scenarios.

3 (4) RECOMMENDATIONS.—If the Technical De-  
4 velopment Group determines that the average in-  
5 crease in global temperatures described in subpara-  
6 graph (A) or (B) of paragraph (1) is no longer sci-  
7 entifically valid, the Technical Development Group  
8 may recommend that the Board of Governors, in co-  
9 ordination with the climate science leads, update the  
10 average increase in global temperatures described in  
11 the applicable subparagraph to reflect the most cur-  
12 rent assessment of climate change science.

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

19 (1) disruptions with respect to—

20 (A) the sourcing of materials;

21 (B) production; and

22 (C) the disposal of products and services;

23 (2) changes in the availability and prices of raw  
24 materials and other inputs;

- 1 (3) changes in agricultural production and with
- 2 respect to food security;
- 3 (4) direct damages to fixed assets;
- 4 (5) increases in costs associated with insured or
- 5 uninsured losses;
- 6 (6) changes in asset values;
- 7 (7) impacts on—
  - 8 (A) aggregate demand for products and
  - 9 services;
  - 10 (B) labor productivity;
  - 11 (C) asset liquidity; and
  - 12 (D) credit availability;
- 13 (8) mass migration and increases in disease and
- 14 mortality rates;
- 15 (9) international conflict, as such conflict re-
- 16 lates to global economic activity and output; and
- 17 (10) changes in any other microeconomic or
- 18 macroeconomic condition that the Board of Gov-
- 19 ernors, in coordination with the climate science
- 20 leads, determines to be relevant.

21 **SEC. 6. CLIMATE-RELATED ENHANCED SUPERVISION FOR**  
22 **CERTAIN NONBANK FINANCIAL COMPANIES**  
23 **AND BANK HOLDING COMPANIES.**

24 Section 165(i)(1) of the Financial Stability Act of  
25 2010 (12 U.S.C. 5365(i)(1)) is amended—

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

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

5 “(C) BIENNIAL TESTS REQUIRED.—

6 “(i) DEFINITIONS.—In this subpara-  
7 graph—

8 “(I) the term ‘capital distribu-  
9 tion’ has the meaning given the term  
10 in section 225.8 of title 12, Code of  
11 Federal Regulations, as in effect on  
12 the date of enactment of this subpara-  
13 graph;

14 “(II) the term ‘capital policy’ has  
15 the meaning given the term in section  
16 225.8(d)(8) of title 12, Code of Fed-  
17 eral Regulations, as in effect on the  
18 date of enactment of this subpara-  
19 graph; and

20 “(III) the terms ‘climate science  
21 leads’ and ‘covered entity’ have the  
22 meanings given those terms in section  
23 3 of the Climate Change Financial  
24 Risk Act of 2019.

25 “(ii) TESTS.—

1           “(I) IN GENERAL.—Subject to  
2           the other requirements of this clause,  
3           the Board of Governors, in coordina-  
4           tion with the appropriate primary fi-  
5           nancial regulatory agencies and the  
6           climate science leads, shall conduct bi-  
7           ennial analyses in which each covered  
8           entity is subject to evaluation, under  
9           an adverse set of conditions, of wheth-  
10          er that covered entity has the capital,  
11          on a total consolidated basis, nec-  
12          essary to absorb financial losses that  
13          would arise under each climate change  
14          risk scenario developed under section  
15          5 of the Climate Change Financial  
16          Risk Act of 2019.

17           “(II) INITIAL TESTS.—With re-  
18          spect to each of the first 3 analyses  
19          conducted under subclause (I)—

20                   “(aa) the covered entity to  
21                   which such an analysis applies  
22                   shall not be subject to any ad-  
23                   verse consequences as a result of  
24                   the analysis; and



1           “(bb) the Board of Gov-  
2 ernors shall—

3                   “(AA) not later than 60  
4 days after the date on which  
5 the Board of Governors  
6 completes each such anal-  
7 ysis, make a summary of the  
8 analysis publicly available;  
9 and

10                   “(BB) submit a copy of  
11 the results of the analysis to  
12 the Committee on Banking,  
13 Housing, and Urban Affairs  
14 of the Senate and the Com-  
15 mittee on Financial Services  
16 of the House of Representa-  
17 tives.

18                   “(III) CLIMATE RISK CAPITAL  
19 POLICY.—

20                   “(aa) IN GENERAL.—Except  
21 with respect to the first analysis  
22 conducted under subclause (I),  
23 each covered entity shall, before  
24 being subject to an analysis  
25 under that subclause, submit to

1 the Board of Governors a capital  
2 policy with respect to climate risk  
3 planning (referred to in this sub-  
4 clause as a ‘climate risk capital  
5 policy’), which shall be based on  
6 the results of the most recently  
7 conducted analysis of the covered  
8 entity under that subclause.

9 “(bb) REJECTION.—Except  
10 as provided in subclause (II)(aa),  
11 the Board of Governors may ob-  
12 ject to a climate risk capital pol-  
13 icy submitted by a covered entity  
14 under item (aa) if the Board of  
15 Governors determines that—

16 “(AA) the covered enti-  
17 ty has not demonstrated a  
18 reasonable plan to maintain  
19 capital above each minimum  
20 regulatory capital ratio on a  
21 pro forma basis under the  
22 adverse set of conditions de-  
23 scribed in subclause (I);

24 “(BB) the climate risk  
25 capital policy is otherwise

1 not reasonable or appro-  
2 priate;

3 “(CC) the assumptions  
4 and analysis underlying the  
5 climate risk capital policy, or  
6 the methodologies and prac-  
7 tices that support the cli-  
8 mate risk capital policy, are  
9 not reasonable or appro-  
10 priate; or

11 “(DD) the climate risk  
12 capital policy otherwise con-  
13 stitutes an unsafe or un-  
14 sound practice.

15 “(cc) GENERAL DISTRIBU-  
16 TION LIMITATION.—If the Board  
17 of Governors, under item (bb),  
18 objects to a climate risk capital  
19 policy submitted by a covered en-  
20 tity under item (aa), the covered  
21 entity may not make any capital  
22 distribution, other than a capital  
23 distribution arising from the  
24 issuance of a regulatory capital  
25 instrument eligible for inclusion

1 in the numerator of a minimum  
2 regulatory capital ratio.”.

3 **SEC. 7. FINANCIAL STABILITY OVERSIGHT COUNCIL.**

4 (a) IN GENERAL.—The Financial Stability Oversight  
5 Council shall establish a subcommittee of the Council that  
6 shall support the Council in identifying risks to, and in  
7 responding to emerging threats to, the stability of the  
8 United States financial system as a result of climate  
9 change.

10 (b) RESPONSIBILITIES.—

11 (1) SUBCOMMITTEE.—The subcommittee estab-  
12 lished under subsection (a) shall, not later than 1  
13 year after the completion of the first analysis re-  
14 quired under subparagraph (C) of section 165(i)(1)  
15 of the Financial Stability Act of 2010 (12 U.S.C.  
16 5365(i)(1)), as added by section 6 of this Act, and  
17 in consultation with the Office of Financial Re-  
18 search, submit to Congress an assessment of the risk  
19 posed by climate change to the efficiency, competi-  
20 tiveness, and stability of the United States financial  
21 system as a whole.

22 (2) COUNCIL.—For each year after the year in  
23 which the assessment required under paragraph (1)  
24 is submitted, the Financial Stability Oversight Coun-  
25 cil shall include in the annual report required under

1 section 112(a)(2)(N) of the Financial Stability Act  
2 of 2010 (12 U.S.C. 5322(a)(2)(N)) an update to  
3 that assessment.

4 (c) COMPOSITION.—The subcommittee established  
5 under subsection (a) shall be composed of—

6 (1) the Chairman of the Board of Governors of  
7 the Federal Reserve System;

8 (2) the Secretary of the Treasury;

9 (3) the Comptroller of the Currency;

10 (4) the Chairperson of the Board of Directors  
11 of the Federal Deposit Insurance Corporation;

12 (5) the Chairman of the Securities and Ex-  
13 change Commission;

14 (6) the Chairperson of the Commodity Futures  
15 Trading Commission; and

16 (7) any other voting or nonvoting members that  
17 the Financial Stability Oversight Council determines  
18 to be appropriate.

○