# CONGRESSIONAL BUDGET OFFICE
# COST ESTIMATE

June 2, 2010

## H.R. 2555
## Homeowners' Defense Act of 2010

*As ordered reported by the House Committee on Financial Services on April 27, 2010*

## SUMMARY


H.R. 2555 is aimed at increasing the availability and affordability of homeowners' insurance by improving the ability of certain state-sponsored insurers and reinsurers to access resources to pay claims following a natural disaster. Based on data from state-sponsored entities that would likely be eligible to participate in the new federal programs and historical expenditure patterns for disaster mitigation programs, CBO estimates that implementing this legislation would cost $1.7 billion over the 2011-2015 period, assuming appropriation of the necessary amounts beginning in 2011.

The legislation would authorize appropriations to establish a federal disaster reinsurance program. Reinsurance is insurance for insurers (or other reinsurers); it allows insurance programs to transfer risk to other entities. Under the bill, the Secretary of the Treasury would be authorized to sell reinsurance to state-sponsored insurers and reinsurers (private entities would not be eligible) in amounts to be determined by the Secretary. Such reinsurance could only be offered to the extent that appropriations for the maximum potential liability of the federal government were provided in advance for each year of insurance coverage.

H.R. 2555 also would authorize appropriations for the Treasury to enter into commitments to guarantee the principal and interest of bonds issued by eligible insurers and reinsurers following a disaster. The total principal of outstanding bonds guaranteed by the Treasury could not exceed $3.5 billion for earthquake claims and $17 billion for all other perils. H.R. 2555 would authorize the appropriation of $75 million over the 2011-2014 period to provide grants for state and local governments to help prevent and mitigate losses from natural disasters. Additionally, CBO estimates that the bill would authorize the appropriation of about $700 million from the new federal reinsurance program for the same purpose. The bill also would authorize the appropriation of $100 million over the 2011-2014 period to establish a National Catastrophe Risk Consortium.

Pay-as-you-go procedures do not apply to this legislation because it would not affect direct spending or revenues.

H.R. 2555 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

## ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 2555 is shown in the following table. The costs of this legislation fall within budget function 450 (community and regional development).

| | By Fiscal Year, in Millions of Dollars | | | | | |
|---|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2011-2015 |
| **CHANGES IN SPENDING SUBJECT TO APPROPRIATION** | | | | | | |
| Natural Catastrophe Reinsurance Fund | | | | | | |
| Estimated Authorization Level | 3,440 | 7,035 | 7,190 | 7,350 | 7,515 | 32,539 |
| Estimated Outlays | 124 | 258 | 265 | 274 | 284 | 1,205 |
| Catastrophe Obligation Guarantee Program | | | | | | |
| Estimated Authorization Level | 65 | 2 | 2 | 23 | 23 | 115 |
| Estimated Outlays | 23 | 23 | 23 | 23 | 23 | 115 |
| Mitigation Grant Program | | | | | | |
| Estimated Authorization Level | 15 | 38 | 105 | 230 | 376 | 764 |
| Estimated Outlays | 2 | 8 | 28 | 73 | 156 | 267 |
| National Catastrophe Risk Consortium | | | | | | |
| Authorization Level | 20 | 20 | 20 | 20 | 0 | 80 |
| Estimated Outlays | 10 | 18 | 20 | 20 | 12 | 80 |
| Total Changes | | | | | | |
| Estimated Authorization Level | 3,540 | 7,095 | 7,317 | 7,623 | 7,914 | 33,489 |
| Estimated Outlays | 159 | 307 | 336 | 390 | 475 | 1,667 |

## BASIS OF ESTIMATE

For this estimate, CBO assumes that the bill will be enacted by the end of fiscal year 2010 and that the necessary amounts will be appropriated for each fiscal year beginning in 2011.

Several factors make the costs of the legislation highly uncertain. Under the bill, the Treasury would have considerable discretion in implementing the federal reinsurance and debt guarantee programs, including establishing eligibility and setting the terms for reinsurance contracts. This discretion makes it difficult to determine which state-sponsored programs would participate. Second, because the structure of various insurers and reinsurers may be altered in response to this legislation or in response to a future disaster, it is unclear what the risk profile of those programs would look like each year. Unless otherwise indicated by historical experience or information provided by a program, CBO assumes for this estimate that potentially eligible entities would operate under their current structure for the next five years and that reinsurance terms offered by the Treasury would encourage participation in the federal program.

**Programs that Increase Access to Capital**

H.R. 2555 would establish two new programs within the Treasury to allow certain state-sponsored insurers and reinsurers to access funding to pay claims following a natural disaster—the National Catastrophe Reinsurance Fund and the Catastrophe Obligation Guarantee program. To be eligible for those programs, insurers or reinsurers would have to:

- Operate as a state-sponsored, nonprofit program that offers (or reinsures) residential property insurance, and in which the state has a financial interest;

- Be governed by a body made up of a majority of public officials;

- Charge premiums that are actuarially sound and do not cross-subsidize separate insurance lines;

- Be considered an "integral part" of the state or otherwise recognized as exempt from federal income taxation;

- Reflect hazard mitigation measures in premiums; and

- Reside in a state that has adopted mitigation measures consistent with the International Code Council building codes.

During the first five years following enactment, if a state does not have an otherwise eligible program, a residual insurer or other state-sponsored provider of catastrophe insurance would be eligible to participate in the new federal programs if such insurance existed prior to enactment of H.R. 2555.

Based on the criteria set forth in the legislation, CBO expects that several existing insurance entities would be eligible to purchase reinsurance or obtain a debt guarantee commitment from the Treasury under the bill over the next five years. Examples of such programs include the Florida Hurricane Catastrophe Fund (FHCF), the California Earthquake Authority (CEA), the Texas Windstorm Insurance Association (TWIA), Louisiana Citizens Property Insurance, and other state Fair Access to Insurance Requirements (FAIR) plans. Actuaries from Florida Citizens Property Insurance (a state-regulated primary insurer for property owners unable to obtain coverage in the private market) as well as the state have recently acknowledged that the insurer is charging below actuarially sound premiums. Thus, CBO assumes that Florida Citizens would not be eligible for either of the new Treasury programs during the next five years. In addition, the program would not qualify for special treatment during the five-year transition period because Florida has another program (the FHCF) that meets the eligibility criteria under the legislation.

In addition to those state-sponsored entities already established, states could modify or create other programs that would become eligible to participate in the new federal programs. For example, following Hurricane Iniki, Hawaii created a Hurricane Relief Fund in 1993 to provide direct insurance to property owners. The state stopped writing coverage in 2000; however, it is possible that the fund (or a similar entity in another state) could write coverage in the future and become eligible to purchase reinsurance or obtain a debt guarantee under the legislation. For this estimate, CBO assumes that only active insurance programs currently established would participate. If programs not yet established participate in the future, the estimated costs of this legislation would be higher.

**National Catastrophe Reinsurance Fund.** Title III would establish a National Catastrophe Reinsurance Fund within the Treasury and would authorize such sums as may be necessary to cover the maximum potential liability of the federal government for reinsurance coverage purchased through the fund. Reinsurance contracts would cover 90 percent of insured losses above and below unspecified minimum retention and maximum coverage levels (set at the discretion of the Treasury) during a given year. The premium charged for such coverage would be set at an amount that the Treasury estimates would offset the expected cost of the reinsurance, including administrative expenses.

CBO estimates that eligible entities would seek about $7 billion in reinsurance coverage from the proposed federal reinsurance fund in 2012 (the first full year that the fund would be effective under the legislation). We estimate that eligible entities would continue to seek the same level of coverage in future years, adjusted for increases in the value and volume of insurance coverage and reaching about $7.5 billion by 2015. CBO's estimate of the expected cost of the reinsurance coverage—net of the premiums charged for that federal coverage—averages about $270 million a year over the 2012-2015 period. As discussed below, CBO expects that premiums charged for the federal reinsurance program would be inadequate to compensate the government for the cost of that coverage.

*Premiums Would Likely Fall Below Those Offered by the Private Market.* Because insurers and reinsurers do not have perfect information, they face considerable uncertainty in setting premiums. For natural disaster coverage, the two main sources of uncertainty involve estimates of expected losses (underwriting risk) and timing of payments (timing risk).

Estimates of expected property damage from catastrophic natural disasters rely on historical data as well as projections of changes in weather patterns and property values. Because catastrophic natural disasters are infrequent, historical data are very limited. Therefore, reinsurers face considerable risk that their estimates of expected property damages, and thus premiums, will not be high enough to cover actual losses over time. Even if insurers and reinsurers knew the exact premium that would cover losses over time, there is still a risk that a high-cost, low-probability disaster could occur early in the program's history, before the program had time to collect enough premiums to accumulate a sufficient level of reserves.

Private insurers and reinsurers of catastrophic events attempt to address both of those risks (as well as others) by including a substantial "risk load"[1] in their premiums. Risk loads observed in private transactions for natural disaster reinsurance vary depending on the range of expected property damages (variance) for a given disaster. Estimates for infrequent events (very severe hurricanes or earthquakes, for example) have wider ranges of expected damages, and thus reinsurance premiums for those events tend to carry a higher risk load. Typical risk loads may be four to six times as large as the expected losses, but they can be 10 times or more.

There are several reasons why CBO believes that both the risk load and the overall premium offered by the Treasury would be less than a comparable premium charged by the private market:

- The federal program would have the capacity to absorb large levels of losses as soon as the program begins operation because of the requirement that the maximum potential liability be appropriated in advance of issuance; therefore, the federal reinsurance program would not have to include timing risk in its premium calculation.

- Other government insurance programs (for example, crop insurance and flood insurance) have not typically incorporated significant risk multiples into premiums to account for uncertainty in loss estimates.

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1 A "risk load" is a factor used by insurers to adjust premiums upward to account for uncertainties in the models used to estimate property damages and other risks inherent in issuing an insurance or reinsurance contract.

- The Treasury would be required under the bill to account for savings associated with the nonprofit and tax-exempt status of the fund when setting premiums.

- Consumer and political pressures directed toward the proposed federal program would likely create a strong incentive for its managers to keep reinsurance premiums low to address homeowners' concerns of price and availability in the property insurance market. The wide range of expected outcomes produced by catastrophic models provides the ability for programs to choose lower expected losses while meeting the requirement of being actuarially sound.

*Demand for Reinsurance and Estimated Authorization Level.* CBO expects that FHCF, CEA, TWIA, Louisiana Citizens, and several state-sponsored FAIR plans would purchase federal reinsurance under H.R. 2555 over the next five years. Some of those insurance entities would cease purchasing coverage from the Treasury following 2015 because they would no longer be eligible. (Most FAIR plans would not qualify for the federal reinsurance program under the criteria set forth in the bill and would only participate for the five years after enactment—the transition period during which noneligible residual insurers and other state providers of catastrophe insurance could participate if no other state-sponsored entity was eligible.) Because CBO expects that premiums offered by the federal government would be below those offered by the private market, we estimate that over time, each participating program would purchase all of its reinsurance through the new federal program.

Under the bill, the total liability of the fund in any single year could not exceed the amount appropriated by the Congress for that purpose. In other words, a reinsurance contract that would reimburse a state-sponsored insurer or reinsurer for up to $10 billion in property damage claims from a natural disaster would require an appropriation of $10 billion before the policy could be issued. CBO obtained data from many potential participants in the federal reinsurance program, including current and historical reinsurance purchases. Based on this information, CBO estimates that the National Catastrophe Reinsurance Fund would require about $3.4 billion in appropriations in 2011 and almost $33 billion over the 2011-2015 period to meet the demand for federal reinsurance.

*Federal Reinsurance Would Likely be Priced Below Cost.* If the Treasury had perfect information needed to set premiums for the proposed reinsurance program, the expected net cost of the program would be zero. Actual costs from year to year would be positive or negative depending on the random occurrence of covered events; however, over time the program would generate enough income to cover all claims.

CBO has limited confidence in the accuracy of expected loss estimates used to set premiums for reinsurance of catastrophic natural disasters. The significant uncertainty inherent in the models used to forecast the frequency and severity of natural disasters and their effects on insured structures, the tendency of government programs to include

relatively small or no risk loads, and political and consumer pressures to keep premiums low would lead, we expect, to premiums that are unlikely to cover future costs.

*Net Expenditures from the National Catastrophe Reinsurance Fund Would Be Positive.* Because the legislation would require the appropriation of the maximum potential loss of the federal government prior to the issuance of a reinsurance contract, insured losses could not exceed amounts appropriated to the fund. However, CBO expects that reinsurance claims resulting from property damage caused by natural disasters would exceed premium income, resulting in net outlays from the fund. Even if the federal government were just as likely to set some premiums too high as too low, the implications for net program costs would not be symmetric because low premiums would encourage sales, while high premiums would discourage sales. CBO estimates that the federal government would tend to sell more reinsurance at a loss than at a gain, resulting in net expenditures from the fund.

Based on current and historical data on probable maximum losses and reinsurance, CBO estimates that reinsurance claims would exceed premiums by $1.2 billion over the next five years, resulting in net outlays from the National Catastrophe Reinsurance Fund of that amount.

**Catastrophe Obligation Guarantee Program.** Title II would authorize such sums as may be necessary for the Secretary of the Treasury to guarantee the principal and interest of debt obligations (for example, bonds) issued by eligible insurers and reinsurers to pay claims for property damages following a natural disaster. The guaranteed principal could not exceed expected insured losses less 80 percent of the issuing programs' reported assets, $3.5 billion for earthquake damages, or $17 billion for damages from all other perils, whichever is least. State programs receiving a guarantee under the bill would be assessed an annual fee not to exceed one-half of one percent of the outstanding debt.

The budgetary accounting for loan guarantees is governed by the Federal Credit Reform Act of 1990 (FCRA), which requires an appropriation of the subsidy and administrative costs associated with federal loan guarantees and federal direct loans. Under FCRA, the subsidy is the estimated lifetime cost to the government of a loan or loan guarantee, calculated on a net-present-value basis excluding administrative costs. FCRA further specifies that the present-value computation should be done by discounting the expected net cash flows from the government at interest rates on Treasury securities of comparable maturity.

CBO expects that FHCF, CEA, TWIA, and Louisiana Citizens would apply for a guarantee under H.R. 3555. In addition, other state FAIR plans (such as the Mississippi Windstorm Underwriting Association) may participate, although very few have the current authority to issue debt. Based on the current risk profiles and claims-paying capacities of those programs, the annualized volume of debt obligations that would be guaranteed under the bill would total about $2.1 billion (mostly from TWIA and FHCF), we estimate. The

relatively high credit rating of insurers and reinsurers likely to participate, combined with expected fee income, suggests a relatively low subsidy rate for those guarantees—between zero and 2 percent, depending on the size of the fee—for a total subsidy cost of about $20 million per year.

Under the bill, the Treasury would enter into a three-year commitment (with optional single-year renewals thereafter) to guarantee debt issued by a participating program following a natural disaster. While it is unlikely that a natural disaster large enough to trigger a debt guarantee would occur, CBO believes that a commitment to guarantee debt would constitute an obligation of the federal government and would require an appropriation to cover the expected cost of any guarantees that might be entered into. CBO estimates that the Treasury would need $63 million (three years of estimated subsidy costs) to enter into debt guarantee commitments covering the 2011-2013 period. For each one-year renewal period thereafter, CBO estimates about $21 million would need to be provided.

Federal expenditures resulting from a default on a debt guarantee made under the bill would likely be infrequent (due to the low probability that a major disaster causing a participating insurer or reinsurer to borrow funds to pay claims would occur and the low probability that the issuing program would default on such borrowing). CBO's estimate of this provision is an annualized cost that reflects those low probabilities. However, if a large-scale natural disaster were to occur and if a state program were to default, spending would be much greater than the expected costs included in this estimate.

CBO estimates that the cost of guaranteeing debt obligations after a disaster would total about $115 million over the next five years, including about $2 million a year for program administration. (Such administrative costs for federal loan and loan guarantee programs are recorded in the budget on a cash basis.)

**Other Discretionary Programs**

H.R. 2555 also would authorize appropriations for hazard mitigation grants and the establishment of a National Catastrophic Risk Consortium. CBO estimates that enacting those provisions would cost $347 million over the 2011-2015 period, assuming appropriation of the specified and necessary amounts.

**Mitigation Grant Program.** Title IV would authorize the appropriation of $15 million for each of fiscal years 2011 through 2014 for the Department of Housing and Urban Development to award grants to state and local governments to prevent and mitigate losses from natural disasters. In addition, the bill would authorize the appropriation of an amount equal to 35 percent of the investment income of the National Catastrophe Reinsurance Fund (which CBO estimates would total about $704 million over the 2012-2015 period), for a total authorization level of $764 million. Based on historical expenditures of existing

mitigation programs, we estimate that implementing this program would cost $267 million over the next five years.

**National Catastrophe Risk Consortium.** Title I would authorize the appropriation of $20 million for each of fiscal years 2011-2014 to establish the National Catastrophe Risk Consortium. The consortium would be a federal entity managed by a board of directors made up of designees from the Departments of the Treasury, Commerce, and Homeland Security, and members of participating states that operate or have authorized a natural catastrophe or residual market insurance entity. Responsibilities of the consortium would include: gathering risk and insurance information, conducting research and analysis into the standardization of risk-linked securities, and facilitating different avenues (for example, securitization and reinsurance) for states to transfer risk to the private market. Under the bill, any security or other financial instrument coordinated by the consortium would be done on a conduit basis (that is, the consortium and the federal government would assume no risk). Based on the cost of similar efforts, CBO estimates that implementing this provision would cost $80 million over the 2011-2015 period for staff and research expenses, assuming appropriation of specified amounts.

**PAY-AS-YOU-GO CONSIDERATIONS**: None.

## INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 2555 contains no intergovernmental or private-sector mandates as defined in UMRA. Debt guarantees, reinsurance policies, and mitigation grants in the bill would benefit state and local governments. Any costs to those entities would be incurred voluntarily as conditions of participating in a voluntary federal program.

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