



**Congressional  
Research Service**

Informing the legislative debate since 1914

---

# U.S.-EU Poultry Dispute on the Use of Pathogen Reduction Treatments (PRTs)

**(name redacted)**

Specialist in Agricultural Policy

January 15, 2015

Congressional Research Service

7-....

[www.crs.gov](http://www.crs.gov)

R40199

## Summary

In January 2009, the outgoing Bush Administration escalated a long-running dispute with the European Union (EU) over its refusal to accept imports of U.S. poultry processed with certain pathogen reduction treatments (PRTs). Bush officials requested World Trade Organization (WTO) consultations with the EU on the matter, a prerequisite first step toward the establishment of a formal WTO dispute settlement panel. The U.S. poultry industry supported the WTO filing by the U.S. Trade Representative (USTR) and encouraged the Obama Administration to continue to pursue the case.

PRTs are antimicrobial rinses—including chlorine dioxide, acidified sodium chlorite, trisodium phosphate, and peroxyacids, among others—that have been approved by the U.S. Department of Agriculture (USDA) for use in poultry processing to reduce the amount of microbes on meat. Meat and poultry products processed with PRTs are judged safe by the United States and also by European food safety authorities. Nevertheless, the EU prohibits the use of PRTs and the importation of poultry treated with these substances. The EU generally opposes such chemical interventions and believes that stronger sanitary practices during production and processing are more appropriate for pathogen control than what it views as U.S. overreliance on PRTs.

As PRTs are widely used in U.S. poultry processing, the EU's ban on their use effectively prohibits U.S. poultry meat from entering EU countries. Prior to 1997, when the prohibition took effect, U.S. exports of broiler and turkey meat to the 15 countries that then constituted the EU totaled nearly 38,000 metric tons (MT), valued at \$58 million. In 2011, U.S. exports to the same 15 countries were reported to be nearly 9,000 MT, valued at \$13 million. USDA analysts believe that almost all of these U.S. exports represent “transshipments,” meaning that Europe is not the intended final destination and that virtually no U.S. poultry meat is being purchased for the EU market. Now that the EU consists of 27 countries, it currently imports worldwide about \$500 million of fresh, chilled, and frozen poultry meat annually (excluding intra-EU trade), most of which is supplied by Brazil and other Latin American countries. Some estimate the U.S. loss of the EU poultry market at between \$200 million and \$300 million annually. Still, other foreign buyers continue to make the United States the second-largest exporter of poultry meat in the world, after Brazil.

Despite initial consultations between the United States and the EU, in October 2009, the USTR asked the WTO to establish a dispute settlement panel regarding the EU restrictions on imports of U.S. poultry. The United States has asked the panel to review whether the EU's ban on the import and marketing of poultry meat and poultry meat products processed with PRTs violates the EU's WTO obligations. USTR claims that PRTs are judged safe by U.S. and other public health authorities, citing European scientific opinions indicating that PRTs pose no risk to human health. The latest scientific opinion of the European Food Safety Authority (EFSA) states that “chemical substances in poultry are unlikely to pose an immediate or acute health risk for consumers.” In addition, in 2011, the international food safety organization Codex Alimentarius Commission (Codex) issued guidelines for the control of *Campylobacter* and *Salmonella* in chicken meat that covers the use of certain hazard-based control measures, including acidified sodium chlorite and trisodium phosphate, among other rinses and oxidants. Some believe the Codex guidelines should effectively resolve concerns about the use of these substances in poultry processing. Nevertheless, USTR and the U.S. poultry industry remain actively engaged in this case, and the United States and EU continue to maintain widely divergent views not only on the poultry issue but on some aspects of their basic approach to food safety regulation.



## **Contents**

Overview.....	1
U.S.-EU Poultry Trade.....	1
EU Prohibitions on Use of PRTs.....	2
U.S. Filing with WTO.....	3
Current Status and Issues.....	5

## **Contacts**

Author Contact Information.....	7
---------------------------------	---

## Overview

In January 2009, the outgoing Bush Administration escalated a long-running dispute with the European Union (EU) over its refusal to accept imports of U.S. poultry treated with certain pathogen reduction treatments (PRTs). PRTs are antimicrobial rinses that have been approved for use by the U.S. Department of Agriculture (USDA) in poultry production to reduce the amount of microbes on meat. Meat and poultry products processed with PRTs are judged safe by the United States and also by European food safety authorities. Nevertheless, the EU prohibits the use of PRTs and the importation of poultry treated with these substances. The EU generally opposes such chemical interventions and asserts that its own poultry producers follow much stricter production and processing rules that are more effective in reducing microbiological contamination than simply washing products at the end of the process.

This dispute dates to 1997, when the EU first banned the use of PRTs on poultry, effectively shutting out virtually all imports from the United States since then. Such treatments are routinely used in U.S. chicken and turkey plants. The United States views the EU ban as a trade barrier that is not based on scientific evidence showing that such treatments are harmful. EU interests believe that stronger sanitary practices during production and processing are more appropriate for pathogen control than what they view as U.S. overreliance on PRTs.

Bush officials requested World Trade Organization (WTO) consultations with the EU on the matter, a prerequisite first step toward the establishment of a formal WTO dispute settlement panel. The U.S. poultry industry supported the WTO filing by the U.S. Trade Representative (USTR) and encouraged the Obama Administration to continue to pursue the case. The Administration and the U.S. poultry industry remain actively engaged in this case. This issue also continues to be raised in ongoing trade negotiations between the United States and EU to establish a free trade area as part of the Transatlantic Trade and Investment Partnership (TTIP).

## U.S.-EU Poultry Trade

Trailing only Brazil, the United States is the second-leading exporter of poultry meat (broiler and turkey) in the world. Together these two countries account for nearly 70% of all world poultry meat exports.<sup>1</sup> Although the U.S. accounts for about one-third of all world poultry trade, virtually no U.S. exports go to EU countries, the world's second-largest importer of poultry meat. The EU accounted for about 9% of all world poultry imports in 2011.

Prior to 1997, when the EU began to prohibit U.S. poultry because of the PRT rule, U.S. exports of broiler and turkey meat to the 15 countries that then constituted the EU were reported to total nearly 38,000 metric tons (MT) with a value of \$52 million. By 2011, U.S. exports to the same 15 countries were reported to be nearly 9,000 MT with a value of \$13 million.<sup>2</sup> Furthermore, these annually reported data likely include "transshipments," meaning that Europe was not their final destination. According to USDA, virtually no U.S. poultry meat is being purchased for

---

<sup>1</sup> USDA, *Livestock and Poultry: World Markets and Trade*, October 2012.

<sup>2</sup> Compiled by CRS from data in the U.S. International Trade Commission's Trade DataWeb database, HTS 0207 (Meat and Edible Offal of Poultry (Chickens, Ducks, Geese, Turkeys and Guineas), Fresh, Chilled or Frozen).

consumption in the EU.<sup>3</sup> Moreover, as additional countries have joined the EU, the United States has lost markets in Europe. After Bulgaria and Romania joined the EU under the 2007 enlargement (to 27 countries), total U.S. poultry meat exports to the two countries dropped to zero, compared with about 54,000 MT, valued at \$34 million, during the prior year. The 27 countries that now comprise the European Union (EU-27) imported an estimated 175,000 MT of fresh, chilled, or frozen poultry meat from outside the EU in 2011, which was valued at \$503 million.<sup>4</sup> Some estimate that the combined effects of the ban and the growth of the EU market may have led to \$200 million to \$300 million in lost U.S. sales annually.<sup>5</sup>

## EU Prohibitions on Use of PRTs

The EU began to prohibit the use of PRTs for both domestic and imported poultry in 1997. Key language in the regulations reads, in part, “[f]ood business operators shall not use any substance other than potable water”—or, when otherwise permitted, “clean water—to remove surface contamination from products of animal origin,” unless use of another substance has specifically been approved by the EU.<sup>6</sup>

In 2002, the United States asked the EU to approve the use of four PRTs on poultry destined for export there. These included chlorine dioxide, acidified sodium chlorate, trisodium phosphate, and peroxyacids. Each is approved for use in poultry processing by both USDA and the U.S. Food and Drug Administration (FDA).<sup>7</sup> More specifically, after birds are slaughtered and the carcasses eviscerated, a USDA inspector examines them for fecal contamination or other problems. They then enter a final washing procedure, where the PRTs may be applied, either as a spray or wash on the processing line, or as an addition to the water used to lower the carcass temperature (the chiller tank). Federal regulations further specify PRT concentration levels and other usage requirements.

Following the U.S. request for use of these four PRTs, several key European opinions on PRT use were issued. These opinions helped form the basis for the U.S. request to allow them. For example, the European Food Safety Authority (EFSA), in December 2005, adopted an opinion that use of the four PRTs under described conditions “does not present any risk to public health” but that “the use of antimicrobial solutions does not replace the need for good hygienic practices during processing of poultry carcasses, particularly during handling.” A second EFSA opinion that month also pointed out that information on one of the substances, peroxyacids, indicated limited effectiveness, requiring that specific conditions of use should be defined.<sup>8</sup>

---

<sup>3</sup> CRS communications with USDA staff, February 2, 2009 (FAS) and February 4, 2009 (ERS).

<sup>4</sup> Compiled by CRS from Global Trade Atlas data, HTS 0207 (Meat and Edible Offal of Poultry (Chickens, Ducks, Geese, Turkeys and Guineas), Fresh, Chilled or Frozen). Data exclude intra-EU shipments.

<sup>5</sup> “USTR Requests Formal WTO Consultations in EU Poultry Dispute,” *Inside U.S. Trade*, January 23, 2009.

<sup>6</sup> EC Reg. No. 853/2004, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:139:0055:0205:EN:PDF>.

<sup>7</sup> 21 CFR Part 173, Subpart D (“Specific Usage Additives”). See also, for example, FSIS Directive 7120.1, “Safe and Suitable Ingredients used in the production of meat, poultry, and egg products,” July 2012; USDA/FSIS, “Guidance on Ingredients and Sources of Radiation Used to Reduce Microorganisms on Carcasses, Ground Beef, and Beef Trimmings;” and University of Georgia, Cooperative Extension, “Processing Tip: Chlorine is still the most popular sanitizer in the poultry industry,” November 2007.

<sup>8</sup> Explanatory Memorandum to accompany the EC “Proposal for a Council Regulation implementing Regulation (EC) No 853/2004 of the European Parliament and of the Council as regards the use of antimicrobial substances to remove (continued...)”

In April 2008, EFSA published another scientific opinion which found that “there are currently no published data to conclude in whatever way” that these substances, when applied on poultry carcasses, cause “acquired reduced susceptibility” (a buildup in resistance to the PRTs), or cause resistance to therapeutic antimicrobials.<sup>9</sup> Around the same time, two other scientific committees under the auspices of the Health and Consumer Protection Directorate-General of the European Commission (EC)<sup>10</sup> issued a joint opinion which essentially found that there appeared to be low environmental risk associated with residues on carcasses, but that there was not enough data for it to make a comprehensive assessment, particularly with regard to post-processing environmental risk.<sup>11</sup>

On December 18, 2008, the EU rejected the U.S. request of approval for use of four PRTs on poultry destined for export to the EU—six years after the U.S. request was submitted.<sup>12</sup> This followed a U.S.-EU economic summit in May 2008, where the EC committed to proposed EU regulatory changes that would permit PRT-treated poultry meat to be imported or produced in EU member states. Changes to the EU’s Food Hygiene Regulation were offered, in June 2008, to the Standing Committee on the Food Chain and Animal Health but were overwhelmingly rejected (316-0, with 29 abstentions). The same proposal was considered in December 2008, by the EU Agricultural and Fisheries Council, representing the agricultural ministers of the EU member states. They too rejected it by the same vote margin.<sup>13</sup>

## U.S. Filing with WTO

In response to the EC’s explicit prohibition of these four PRTs and the importation of poultry treated with such substances, the United States requested WTO consultations in January 2009. The outgoing Bush Administration expressed its frustration with the EU’s decision not to allow U.S. poultry processed using these PRTs, given what it characterized as several favorable European scientific opinions that PRTs pose no risk to human health. The Bush Administration expressed concern that even the rejected changes represented a “heavily conditioned” proposal, including requirements for labeling, a limitation on PRT use to carcasses, not parts, and a limitation to use of a single PRT (not a combination of them) to be followed by potable water rinses. USTR concluded that this issue could not be resolved through further negotiation and initiated its request to establish a WTO panel to determine whether the EU is acting consistently

---

(...continued)

surface contamination from poultry carcasses,” Brussels, October 29, 2008.

<sup>9</sup> Scientific Opinion of the Panel on Biological Hazards on a Request from DG SANCO on the assessment of the possible effect of the four antimicrobial treatment substances on the emergence of antimicrobial resistance, *EFSA Journal* (2008) 659, 1-26.

<sup>10</sup> The European Commission (EC) represents the interests of the EU, and is responsible for proposing and applying laws, implementing regulations and other decision, and other activities within the EU.

<sup>11</sup> Scientific Committee on Health and Environmental Risks and Scientific Committee on Emerging and Newly Identified Health Risks, scientific opinion on the environmental impact and effect on antimicrobial resistance of four substances used for the removal of microbial surface contamination of poultry carcasses, April 2008.

<sup>12</sup> Council Decision 2009/121/EC of 18 December 2008 rejecting the proposal from the Commission for a Council Regulation implementing Regulation (EC) No 853/2004 of the European Parliament and of the Council as regards the use of antimicrobial substances to remove surface contamination from poultry carcasses, 2009/121/EC.

<sup>13</sup> “Parliament opposes sale of chlorinated chicken in EU,” June 19, 2008. Earlier, in June 2008, the European Parliament, which has a more limited role in this phase of the process, had approved a resolution urging the Commission to reject the food hygiene changes (526-27, with 11 abstentions).

with its WTO obligations.<sup>14</sup> The U.S. poultry industry supported the WTO filing by the USTR and encouraged the Obama Administration to continue to pursue the case. The United States and the EU continued to hold consultations starting again in February 2009.

The U.S. request for WTO consultations on the poultry matter was filed on January 16, 2009.<sup>15</sup> It states that the EU ban on PRTs in poultry processing violates the EU's WTO obligations under both the Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures and the Agreement on Technical Barriers to Trade (TBTs). (For more information on these two agreements, see text box on next page.) Specifically, the U.S. filing states that the ban by the EU on PRTs for poultry appears to violate the following WTO obligations:

- Article 2.2 of the SPS agreement, which permits only those measures necessary to protect human, animal, and plant life or health and that are based on scientific principles;
- SPS Article 5, which governs risk assessment and determination of the appropriate level of SPS protection, with the objective of minimizing trade impacts;
- SPS Article 8, on control, inspection, and approval procedures, which are aimed at treating imports no less favorably than domestic products; and
- Article 2 of the TBT Agreement, which is intended to assure that TBT measures do not discriminate against imports or create unjustified barriers to trade.

In October 2009, despite initial consultations between the United States and the EU, the USTR asked the WTO to establish a dispute settlement panel regarding the EU's restrictions on imports of U.S. poultry. The United States has asked the panel to review whether the EU's ban on the import and marketing of poultry meat and poultry meat products processed with PRTs violates the EU's WTO obligations. USTR and the U.S. poultry industry remain actively engaged in this case. A panel was established in November 2009, and USTR and poultry industry officials remain interested in moving forward.

Formal WTO cases can take many years to be resolved to the satisfaction of either party. A case in point is the long-running U.S.-EU dispute over the use of hormones in beef, which the EU prohibits and which has kept beef from the United States, where they are used, out of the EU market for many years.<sup>16</sup> Several WTO dispute panel rulings concluded that the EU hormone ban is scientifically unjustified and inconsistent with WTO rules, and the United States imposed WTO-approved retaliatory tariffs on some EU imports. However, the EU continued to enforce the hormone ban. Decades later, the United States and the EU signed a memorandum of understanding (MOU) implementing an agreement that could eventually resolve this long-standing dispute. Meanwhile, as EU officials have pointed out, the United States is permitted to, and does, export hormone-free beef to the EU; likewise, U.S. poultry meat not treated with PRTs likely would be accepted.

---

<sup>14</sup> USTR, "U.S. Files WTO Case Challenging EU Restrictions on U.S. Poultry Exports," January 16, 2009.

<sup>15</sup> WTO, *European Communities—Certain Measures Affecting Poultry Meat and Poultry Meat Products from the United States—Request for Consultations by the United States* (WT/DS389/1, January 20, 2009). The document and current status of the dispute is available at [http://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds389\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds389_e.htm).

<sup>16</sup> For more information on this case, see CRS Report R40449, *The U.S.-EU Beef Hormone Dispute*.

## Role of the World Trade Organization (WTO)

Multilateral trade rules allow governments to adopt measures to protect human, animal, or plant life or health, provided that they do not discriminate or use them as disguised protectionism. This principle was clarified in 1994 by WTO members' approval, along with the other so-called Uruguay Round Agreements, of the Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures ("SPS Agreement"). A separate accord, the Agreement on Technical Barriers to Trade (TBTs, the "TBT Agreement"), covers other government measures (including but not limited to food and agriculture) to regulate markets and protect consumers and the environment.

Both the United States and the EU are parties to these WTO agreements.

### SPS Agreement

The Agreement on Sanitary and Phytosanitary (SPS) Measures (or "SPS Agreement") prescribes rules requiring a scientific basis for measures that restrict imports on the basis of health or safety concerns, and sets out the basic rules for ensuring that each country's food safety and animal and plant health laws and regulations are transparent, scientifically defensible, and fair. The agreement was entered into force on January 1, 1995, as one of the agreements in the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), the multilateral trade negotiations administered by the WTO. It is designed to protect animals and plants from diseases and pests, and to protect humans from animal- and plant-borne diseases and pests, and foodborne risks. Examples include specific product or processing standards, requirements for products to be produced in disease-free areas, quarantine and inspection procedures, sampling and testing requirements, residue limits for pesticides and drugs in foods, and prohibitions on certain food additives. The SPS Agreement provides that dispute settlement procedures under the WTO apply also to disputes about food safety and health measures.

### TBT Agreement

The Agreement on Technical Barriers to Trade ("TBT Agreement") addresses the growing number of technical regulations and standards adopted by countries that might restrict trade. The agreement resulted from the Tokyo Round in 1979, when members signed a so-called Standards Code. The agreement sets down rules for regulations and standards concerning specific characteristics of a product such as its size, shape, design, functions and performance, or the manner in which a product is labeled or packaged. The TBT Agreement covers the preparation, adoption, and application of technical regulations, product standards, and conformity assessment procedures, as well as environmental regulations and voluntary procedures relating to health, sanitary concerns, and animal welfare. Examples include trademarks and patents, geographical indications (GIs), labeling and packaging requirements, certification and inspection procedures, product specifications, and approval and marketing of biotechnology. The TBT Agreement also provides for WTO dispute settlement procedures.

For more information, see CRS Report R43450, *Sanitary and Phytosanitary (SPS) and Related Non-Tariff Barriers to Agricultural Trade* and also the WTO's website, [http://www.wto.org/english/tratop\\_e/sps\\_e/sps\\_e.htm](http://www.wto.org/english/tratop_e/sps_e/sps_e.htm).

## Current Status and Issues

The United States and the EU maintain widely divergent views not only on the poultry issue but on some aspects of their basic approach to food safety regulation. A widely held European view appears to be that the U.S. use of these treatments compensates for poor sanitary standards earlier in the production process. European poultry producers assert that they follow much stricter production and processing rules that are more successful in reducing microbiological contamination than simply washing products at the end of the process.

In its June 2008 resolution, the European Parliament claimed that the European industry had made "considerable investments ... in accordance with Community legislation, with a view to

reducing pathogen contamination by implementing a total food chain approach.”<sup>17</sup> The resolution also argued, among other things, that to allow the use of PRTs given the lack of evidence supporting their safety “is out of step with both the European public’s food safety and hygiene expectations and the demand for production models—both within and outside Europe—which ensure that high hygiene standards are maintained throughout the production and distribution process,” and would likely “undermine European consumer confidence in foodstuffs sold within the European Union, which remains fragile following the food safety problems that have arisen within the Union over recent years.”<sup>18</sup>

Nevertheless, a 2012 scientific opinion by European Food Safety Authority (EFSA) recommends changes to the EU’s own meat inspection procedures, criticizing its efforts for detecting and controlling *Campylobacter* and *Salmonella* in chicken meat. Regarding chemical intervention, the opinion further states that “chemical substances in poultry are unlikely to pose an immediate or acute health risk for consumers.”<sup>19</sup>

This followed the release of 2011 guidelines issued by the international food safety organization Codex Alimentarius Commission (Codex) for the control of *Campylobacter* and *Salmonella* in chicken meat.<sup>20</sup> These Codex guidelines cover, among other types of production controls, the use of certain hazard-based control measures, including acidified sodium chlorite and trisodium phosphate, among other antimicrobial rinses and oxidants. Some believe the Codex guidelines might effectively resolve concerns about the use of these substances in poultry processing.<sup>21</sup>

The USTR and the U.S. poultry industry remain actively engaged in this case. According to a representative of the National Chicken Council, a recent application by USDA to the EU’s Directorate-General for Health and Consumer Affairs, was “supportive” of reviewing “the approval for the use of peroxyacetic acid as an anti-microbial treatment in the post-slaughter rinse water in U.S. poultry plants.”<sup>22</sup>

This issue also continues to be raised in ongoing trade negotiations between the United States and EU to establish a free trade area as part of the Transatlantic Trade and Investment Partnership (TTIP).<sup>23</sup> The U.S. poultry industry has indicated that it is unlikely to support a TTIP agreement that does not provide for better access to the EU of U.S poultry products.<sup>24</sup>

<sup>17</sup> “European Parliament resolution of 19 June 2008 on imports of poultry carcasses,” <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0307+0+DOC+XML+V0//EN&language=EN>.

<sup>18</sup> Ibid.

<sup>19</sup> EFSA, “Scientific Opinion on the public health hazards to be covered by inspection of meat (poultry),” Appendix B, *EFSA Journal* 10(6):2741, 2012, <http://www.efsa.europa.eu/en/efsajournal/pub/2741.htm>.

<sup>20</sup> Joint FAO/WHO Food Standards Programme Codex Committee on Food Hygiene, “Guideline for the Control of *Campylobacter* and *Salmonella* spp. in Chicken Meat,” CAC/GL 78-2011, <http://www.codexalimentarius.org/>.

<sup>21</sup> D. Pisanello, “Happy end for US-EC dispute on poultry SPS measures,” *Lex Alimentaria*, August 24, 2011.

<sup>22</sup> Testimony by Bill Roenigk of the National Chicken Council to the U.S. Senate Committee on Finance, October 30, 2013.

<sup>23</sup> See, for example, “Free trade with U.S.? Europe balks at chlorine chicken, hormone beef,” *Washington Post*, December 4, 2014. For more information on the negotiation, see CRS Report R43387, *Transatlantic Trade and Investment Partnership (T-TIP) Negotiations*.

<sup>24</sup> Testimony by Bill Roenigk of the National Chicken Council to the U.S. Senate Committee on Finance, October 30, 2013; and C. Perkins, “U.S. Poultry Industry Raises Concerns about TTIP,” *Global Meat*, June 4, 2013.

## **Author Contact Information**

(name redacted)  
Specialist in Agricultural Policy  
[redacted]@crs.loc.gov, 7-....

# EveryCRSReport.com

The Congressional Research Service (CRS) is a federal legislative branch agency, housed inside the Library of Congress, charged with providing the United States Congress non-partisan advice on issues that may come before Congress.

EveryCRSReport.com republishes CRS reports that are available to all Congressional staff. The reports are not classified, and Members of Congress routinely make individual reports available to the public.

Prior to our republication, we redacted names, phone numbers and email addresses of analysts who produced the reports. We also added this page to the report. We have not intentionally made any other changes to any report published on EveryCRSReport.com.

CRS reports, as a work of the United States government, are not subject to copyright protection in the United States. Any CRS report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS report may include copyrighted images or material from a third party, you may need to obtain permission of the copyright holder if you wish to copy or otherwise use copyrighted material.

Information in a CRS report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to members of Congress in connection with CRS' institutional role.

EveryCRSReport.com is not a government website and is not affiliated with CRS. We do not claim copyright on any CRS report we have republished.