

The Problem of “Double Remedies” in International Trade Disputes and the Economics of Pass-Through

James P. Durling*
Thomas J. Prusa†

In 2007, the United States reversed its long-standing policy prohibiting the simultaneous imposition of antidumping (AD) and countervailing duties (CVDs) against nonmarket economies (NMEs). Both the U.S. courts and the World Trade Organization have found the United States Department of Commerce’s (Commerce) continued use of its NME methodology in the AD investigation while simultaneously applying CVDs to offset domestic subsidies to violate domestic and international legal norms. The United States Congress recently changed U.S. law, authorizing such double remedies, but also called for an offset of the AD margin to reflect any duplicative remedy for the same alleged unfairness. We review how this double remedies issue is addressed under the new CVD legislation, how Commerce has addressed this issue in the past and is addressing it now, and how the large body of economics literature on “pass-through” can shed helpful light on these issues. Private parties making arguments to agencies, agencies making decisions, and tribunals reviewing these agency decisions will likely be struggling with these new issues for some time.

I.	INTRODUCTION AND BACKGROUND	514
II.	THE NEW LAW	516
III.	PASS-THROUGH AT THE U.S. DEPARTMENT OF COMMERCE	520
	A. <i>Commerce and the Pass-Through of Commodity Taxes</i>	520
	B. <i>Commerce and Pass-Through—The Second Time Around</i>	523
	C. <i>Commerce’s Very Different Approaches</i>	528
IV.	THE ECONOMICS OF PASS-THROUGH: THE THEORY	529
	A. <i>The Economic Logic of Partial Pass-Through</i>	530
	B. <i>Partial Equilibrium Modeling of Pass-Through</i>	531
	C. <i>The Scale Considered: The Firm, the Industry, or the Economy</i>	531

© 2013 James P. Durling and Thomas J. Prusa.

* Curtis, Mallet-Prevost, Colt and Mosle LLP, 1717 Pennsylvania Avenue N.W., Washington, D.C., 20006, USA. Tel: +1.202.452.7328, E-mail: jdurling@curtis.com, web: <http://www.curtis.com>. This Article reflects the views of the Author and should not be attributed to Curtis, Mallet-Prevost, Colt, and Mosle LLP, or to any clients of the firm.

† Department of Economics, New Jersey Hall, 75 Hamilton Street, Rutgers University, New Brunswick NJ 08901-1248, USA. Tel: +1.908.443.1565, E-mail: prusa@econ.rutgers.edu, <http://econweb.rutgers.edu/prusa/>.

D.	<i>The Time Horizon: Short-Term Versus Long-Term Pass-Through</i>	532
E.	<i>The Nature of Competition: The Role of Market Structure and Conduct</i>	533
V.	THE ECONOMICS OF PASS-THROUGH: MEASUREMENT.....	533
A.	<i>A Few Caveats</i>	535
B.	<i>“Consensus” Evidence for Partial Pass-Through</i>	536
C.	<i>Pass-Through and the Aggregation of Data</i>	538
D.	<i>Short-Run Versus Long-Run Perspectives</i>	539
E.	<i>The Role of Market Structure and Competition</i>	540
VI.	CONCLUDING THOUGHTS.....	541
A.	<i>Issues that Commerce Should Address</i>	541
B.	<i>Issues the Courts and the WTO Will Face</i>	542

I. INTRODUCTION AND BACKGROUND

Trade policy toward China changed dramatically in 2007 when the United States Department of Commerce (Commerce) announced that it would begin conducting countervailing duty (CVD) investigations against nonmarket economies (NMEs).¹ Previously, Commerce’s policy had been that countervailable subsidies could not exist in NMEs like China, a position repeatedly ratified by the United States Congress and affirmed by the courts.² Starting in 2007, Commerce changed its policy and began to argue that the economic changes in China made it possible to begin measuring subsidies.³

This policy shift led to a new issue: the possibility of “double remedies” for the same alleged unfairness. Although Commerce was now applying market economy CVD rules, Commerce was nevertheless continuing to apply special NME antidumping (AD) rules.⁴ Interested Chinese parties challenged Commerce’s new policy both in the U.S.

1. See Coated Free Sheet Paper from the People’s Republic of China, 72 Fed. Reg. 60,645 (Dep’t of Commerce Oct. 25, 2007) (final determination).

2. See *GPX Int’l Tire Corp. v. United States (GPX I)*, 645 F. Supp. 2d 1231, 1236 (Ct. Int’l Trade 2009).

3. *Id.* at 1237. History of these policy shifts and the congressional and judicial reactions have been summarized in the numerous court decisions challenging the new policy. See *GPX Int’l Tire Corp. v. United States (GPX II)*, 666 F.3d 732 (Fed. Cir. 2011); *GPX Int’l Tire Corp. v. United States (GPX III)*, 678 F.3d 1308 (Fed. Cir. 2012).

4. See, e.g., Coated Free Sheet Paper from the People’s Republic of China, 72 Fed. Reg. 60,632 (Dep’t of Commerce Oct. 25, 2007) (final determination).

court system and before the World Trade Organization (WTO).⁵ Both the U.S. courts and the WTO found problems with Commerce’s policy, in particular that the simultaneous use of CVD measures and special AD rules for NMEs posed a serious risk of double remedies—imposing duties twice to offset the same underlying unfair pricing.⁶

Although the initial dispute was over the possibility of double remedies, recent changes to U.S. law have made that dispute moot. After the United States Court of Appeals for the Federal Circuit ruled that Commerce had no authority to impose CVD measures against NMEs under the existing statute,⁷ Congress changed the statute.⁸ Under the new statutory provisions, Commerce has the authority to impose CVD measures (thus overturning the Federal Circuit decision) and to make adjustments to the AD margins for any demonstrated double remedy (thus addressing the WTO inconsistency found by the Appellate Body).⁹ The issue is now identifying and measuring any such double remedy.

Commerce has made its first administrative decision under the new law.¹⁰ This decision both highlights the limits of what has been done and foreshadows further issues of dispute. When conducting a section 129 proceeding to implement the adverse WTO decision, Commerce used the new law to determine the extent to which subsidies have been “passed through” to U.S. import prices, a phenomenon which was the source of the type of double remedy the new statute sought to address.¹¹ Commerce’s initial effort was rushed and crude, but it was a start. This Article seeks to describe what was done on pass-through, identify issues, and offer thoughts for how the policy process can use economic thinking to approach this issue of pass-through in a more serious way.

We begin with a brief review of the new law that requires Commerce to consider the issue of possible double remedies that may

5. *GPX I*, 645 F. Supp. 2d at 1234; Appellate Body Report, *United States—Definitive Anti-Dumping and Countervailing Duties on Certain Products from China*, WT/DS379/AB/R (Mar. 11, 2011).

6. *GPX I*, 645 F. Supp. 2d at 1240; Appellate Body Report, *supra* note 5, ¶ 611.

7. *GPX II*, 666 F.3d at 745.

8. *GPX III*, 678 F.3d at 1310.

9. *Id.* at 1311.

10. See Implementation of Determinations Under Section 129 of the Uruguay Round Agreements Act: Certain New Pneumatic Off-the-Road Tires; Circular Welded Carbon Quality Steel Pipe; Laminated Woven Sacks; and Light-Walled Rectangular Pipe and Tube from the People’s Republic of China, 77 Fed. Reg. 52,683 (Dep’t of Commerce Aug. 30, 2012).

11. See Memorandum from Christian Marsh, Deputy Assistant Sec’y for Antidumping & Countervailing Duty Operations, Dep’t of Commerce, to Paul Piquado, Assistant Sec’y for Antidumping & Countervailing Duty Operations, Dep’t of Commerce (July 31, 2012) (on file with the U.S. Department of Commerce) (regarding the AD and CVD investigation of circular welded carbon-quality steel pipe from the People’s Republic of China).

emerge from the simultaneous imposition of AD and CVD measures against NMEs. We review the statutory language and highlight issues raised by that language.

The new law has been applied once.¹² We discuss what Commerce has done in this first application of the new law in the section 129 proceedings and put that initial effort in the historical context of prior Commerce efforts to address pass-through. After reviewing briefly how Commerce struggled with an analogous pass-through issue in the late 1980s, we describe in some detail how Commerce has handled these issues the second time around.

We then turn to the economic theory behind pass-through. Our focus here is to put the current Commerce methodology in the broader context of economic results and methods regarding pass-through. The statutory language and Commerce's application of the statute have implicitly raised economic issues. We briefly summarize how the field of economics thinks about these issues and how that theory informs how Commerce should think about these issues.

Having framed the key economic issues from a theoretical perspective, we turn to the economics literature to see how these issues have been addressed empirically. Economists have spent quite a bit of time studying pass-through, but in a somewhat different context. We summarize the most important parts of this literature and discuss how this empirical work can also inform Commerce's thinking about pass-through.

We then conclude with some thoughts for how we think this issue will evolve, both before the agency and before those reviewing agency decisions. These issues are certain to be contested, both before Commerce in the first instance and then before the U.S. courts and the WTO. It will be some time before Commerce, the courts, and the WTO collectively settle upon a framework that parties can begin to rely upon with any degree of confidence.

II. THE NEW LAW

The combination of the loss in the WTO and the loss in the Federal Circuit led the Administration to push for legislative change. Starting in December 2011, immediately after the Federal Circuit decision in *GPX*

12. See Implementation of Determination Under Section 129 of the Uruguay Round Agreements Act: Certain New Pneumatic Off-the-Road Tires; Circular Welded Carbon Quality Steel Pipe; Laminated Woven Sacks; and Light-Walled Rectangular Pipe and Tube from the People's Republic of China, 77 Fed. Reg. at 52,683; see also Memorandum from Christian Marsh to Paul Piquado, *supra* note 11 (discussing the application of the new law).

International Tire Corp. v. United States,¹³ the Administration (with strong support from various domestic interests that had been pursuing CVD measures against China) began working with Congress for a prompt legislative solution to the adverse Federal Circuit decision, and the new law, Public Law 112-99, was enacted on March 13, 2012.¹⁴

The new law served two purposes. First, it changed U.S. law to authorize CVD measures against NMEs like China.¹⁵ Section 1 amended section 701 of the Tariff Act of 1930 (Tariff Act) to add a new subsection (f) that confirmed the applicability of CVD measures to proceedings involving NMEs.¹⁶

Second, it codified a possible adjustment for double remedies in an effort to comply with U.S. international obligations under the WTO.¹⁷ Section 2 amended section 777A of the Tariff Act to add a new subsection (f) that authorized the adjustment of AD measures in certain circumstances to account for the double counting that occurs from simultaneous AD and CVD measures against NMEs.¹⁸

For purposes of this Article, we focus on the new mechanism for an adjustment to correct for potential double remedies. We note the following features of the new statutory provisions that create this new adjustment to AD measures.

*The adjustment can only offset domestic subsidies.*¹⁹ The statute already has a mechanism for an adjustment for export subsidies,²⁰ so the new law leaves that mechanism in place and only addresses domestic subsidies that Commerce has investigated and found to be countervailable.

*The subsidy must have been provided to the “class or kind of merchandise.”*²¹ The new law focuses on the “class or kind” of merchandise being investigated, and so draws no linkage between subsidies to certain specific products. As a practical matter, most domestic subsidies probably apply to a broader category of product. But that need not be true in every case. Presumably a subsidy to any specific

13. See *GPX II*, 666 F.3d at 745.

14. Act of Mar. 13, 2012, Pub. L. No. 112-99, 126 Stat. 265 (to be codified at 19 U.S.C. §§ 1671, 1766f-1); see also *GPX III*, 678 F.3d at 1310.

15. Act of Mar. 13, 2012, § 1(a).

16. *Id.*

17. *Id.* § 2(a).

18. *Id.*

19. *Id.*

20. 19 U.S.C. § 1677a(c) (2006).

21. Act of Mar. 13, 2012, § 2(a).

product within the class or kind of merchandise would be considered a subsidy to the entire class or kind of merchandise.

*The effects of the subsidy must have "been demonstrated."*²² The statutory language uses the passive voice, and thus does not indicate who must do the demonstrating.²³ The open-ended language contemplates demonstration by the foreign respondents, the domestic petitioners, or Commerce itself. This leaves Commerce with the maximum discretion regarding who has what burden of proof, at least for purposes of U.S. law.²⁴

*The effects must have been to reduce "the average price of imports."*²⁵ This phrase has three key elements. First, the statute focuses on the effects on imports into the United States.²⁶ Rather than focus on the effect on the price of goods produced (still in an NME country), the focus is on only those prices of goods being imported into the United States.²⁷ Second, the statute focuses on the average price of imports, not only on specific prices for specific transactions.²⁸ Unlike many adjustments that Commerce requires to be demonstrated on a transaction-specific basis, this adjustment can be demonstrated based on average prices for the class or kind of merchandise.²⁹ Third, the phrase refers to import prices being reduced, which presumably means reduced from what they would have otherwise been.³⁰ One can easily imagine a situation where other factors lead to import prices increasing, but by less than they would have but for the effects of the subsidy. Such a situation could occur any time the case involves allegations of price suppression (prices changing by less than the cost changes would suggest), rather than price depression (prices actually falling).

*The effects must be demonstrated "during the relevant period."*³¹ The statute does not refer to any specific period of time, and instead refers more generally to the relevant period of time.³² This phrasing

22. *Id.*

23. *Id.*

24. In the final determination of the section 129 proceedings discussed below, Commerce agreed with the domestic parties that the foreign respondents have the burden of proof for all adjustments. See Memorandum from Christian Marsh to Paul Piquado, *supra* note 11, at 13-14. But this position was reached in the absence of any argumentation by the foreign respondents on this issue and does not really address the language of the statute. See *id.*

25. Act of Mar. 13, 2012, § 2(a).

26. *Id.*

27. *Id.*

28. *Id.*

29. *Id.*

30. See *id.*

31. *Id.*

32. *Id.*

probably reflects the reality that this adjustment may be applied to original investigations or administrative reviews, each of which has a different period of investigation.

*The authority must be able to “reasonably estimate the extent to which” the subsidy increased the dumping margin.*³³ Unlike the price effects that can be demonstrated by anyone, the judgment about which authority “can reasonably estimate” must be made by Commerce.³⁴ The term “estimate” confirms that Commerce need not make a precise measurement.³⁵ The phrase “the extent to which” strongly suggests there will be something to estimate, and the only issue is how large this “extent” will be in a particular case.³⁶ Note that the statute does not require Commerce to use the reduction in the average price of imports to determine the estimate of how much the subsidy increased the dumping margin.³⁷ Although that linkage may exist in most (perhaps all) cases, the statute contemplates a two-part determination.

Assuming some amount of effect can be estimated, Commerce is then directed to reduce the AD duty by that estimated amount.³⁸ So, to take a simple example, suppose an NME has a subsidy that lowers the price of a key input, such as hot-rolled steel used to produce some downstream product, by 10%. Such an upstream subsidy would be a domestic subsidy, affecting all production. It would not be hard to demonstrate that having lower input costs reduces the average price of imported products that use that particular input. For example, a simple plot of hot-rolled steel prices and carbon steel pipe prices (a downstream product for which hot-rolled steel is the major raw material cost) shows a very similar pattern, which should demonstrate the price effect. The remaining step would be for Commerce to “reasonably estimate” the amount of this price effect, which would have lowered import prices and increased the dumping margin.³⁹

It is this last step—the need to “reasonably estimate”—that will prove to be the most challenging to implement.⁴⁰

33. *Id.*

34. *See id.*

35. *See id.*

36. *Id.*

37. *See id.*

38. *Id.*

39. *Id.*

40. *Id.*

III. PASS-THROUGH AT THE U.S. DEPARTMENT OF COMMERCE

In May 2012, Commerce issued its first decision on double remedies under the new law and addressed the issue of having to reasonably estimate the amount of pass-through taking place.⁴¹ But this is not the first time Commerce has confronted this issue. Before going into the details of what Commerce is doing now, it is useful to briefly recap the approaches considered two decades ago when Commerce struggled with pass-through in a different context—the pass-through of commodity taxes.

A. *Commerce and the Pass-Through of Commodity Taxes*

Commerce has struggled with pass-through before. In the late 1980s, petitioners challenged the standard Commerce practice of adjusting for home market commodity taxes by assuming complete pass-through of the tax.⁴² This legal challenge was first successful in a 1986 case involving color televisions and was followed by a number of cases with the same outcome.⁴³

The issue played out differently in each proceeding, bringing with it (1) a series of fights with the United States Court of International Trade (CIT) over whether Commerce really had to measure pass-through and (2) battles with experts over the economics of pass-through in various administrative proceedings involving color televisions from Asia.⁴⁴ Without delving too deeply into the details, we offer the following brief overview of each of these cases.

The Japan case. The first time around, Commerce sought to comply with the CIT remand instructions by hiring its own economist to do a study of pass-through.⁴⁵ Commerce hired economists who developed a

41. See Implementation of Determinations Under Section 129 of the Uruguay Round Agreements Act: Certain New Pneumatic Off-the-Road Tires; Circular Welded Carbon Quality Steel Pipe; Laminated Woven Sacks; and Light-Walled Rectangular Pipe and Tube from the People's Republic of China, 77 Fed. Reg. 52,683, 52,683-84 (Dep't of Commerce Aug. 30, 2012).

42. Zenith Elecs. Corp. v. United States (*Zenith I*), 10 Ct. Int'l Trade 268, 273-74 (1986) (Japanese color televisions), *appeal dismissed as moot*, 875 F.2d 291 (Fed. Cir. 1989); Daewoo Elecs. Co. v. United States (*Daewoo I*), 13 Ct. Int'l Trade 253, 255, 257 (1989) (Korean color televisions); Zenith Elecs. Corp. v. United States (*Zenith II*), 15 Ct. Int'l Trade 394, 396 (1991) (Taiwanese color televisions).

43. See *Zenith I*, 10 Ct. Int'l Trade at 268; *Daewoo I*, 13 Ct. Int'l Trade at 282; *Zenith II*, 15 Ct. Int'l Trade at 396.

44. See *Zenith I*, 10 Ct. Int'l Trade at 268; *Daewoo I*, 13 Ct. Int'l Trade at 253; *Zenith II*, 15 Ct. Int'l Trade at 394.

45. See Zenith Elecs. Corp. v. United States (*Zenith III*), 14 Ct. Int'l Trade 831, 854 (1990); Zenith Elecs. Corp. v. United States (*Zenith IV*), 988 F.2d 1573, 1577-79 (Fed. Cir. 1993);

complex model of oligopolistic competition among Japanese color television manufacturers.⁴⁶ Using cost and price data from the Japanese firms and from some public sources, the study found significant pass-through, including measured pass-through, in some cases of more than 100%.⁴⁷ Based on this study, Commerce concluded that pass-through was complete.⁴⁸

The Korea case. The second time around, Commerce again started the process with its own econometric study. The Commerce study again used a complex model of oligopolistic competition, but this time for a typical Korean firm, and found 100% pass-through.⁴⁹ This result was challenged, and the CIT required Commerce to make firm-specific determinations more closely grounded in the record evidence.⁵⁰ At this point, Commerce shifted the burden and required the Korean respondents and domestic petitioners to submit their own competing studies.⁵¹ Both sides hired economists who did separate analyses for each of the Korean firms.⁵² After reviewing this second round of studies, Commerce found technical problems with the study done by the Korean respondents and therefore relied on the study done by the domestic petitioners as the “best information available,” finding pass-through of 33%-63%.⁵³ This ongoing technical battle was rendered moot when the Federal Circuit issued a decision in 1993 (discussed *infra*) reversing the CIT and reinstating the Commerce practice of using accounting evidence to presume complete pass-through.⁵⁴

The Taiwan case. The third time around, Commerce did not even try to do its own study of pass-through.⁵⁵ Instead, Commerce imposed that burden on the parties.⁵⁶ The Taiwanese respondents produced an economic study that took a somewhat different approach than the earlier studies.⁵⁷ This report argued that the Taiwan color television industry was

see also Larry S. Karp & Jeffrey M. Perloff, *Estimating Market Structure and Tax Incidence: The Japanese Television Market*, 37 J. INDUS. ECON. 225 (1989).

46. *See Zenith IV*, 988 F.2d at 1577-79; Karp & Perloff, *supra* note 45.

47. *See Zenith IV*, 988 F.2d at 1577-79; Karp & Perloff, *supra* note 45.

48. *Zenith IV*, 988 F.2d at 1577-79; Karp & Perloff, *supra* note 45.

49. *See* Color Television Receivers from Korea, 49 Fed. Reg. 50,420, 50,428 (Dep’t of Commerce Dec. 28, 1984) (final admin. review).

50. *Daewoo I*, 13 Ct. Int’l Trade 253, 285 (1989).

51. *Daewoo Elecs. v. United States (Daewoo II)*, 6 F.3d 1511, 1515 (Fed. Cir. 1993).

52. *Id.*

53. *Id.* (internal quotation marks omitted).

54. *See id.* at 1523.

55. *See* Color Television Receivers, Except for Video Monitors, from Taiwan, 51 Fed. Reg. 46,895 (Dep’t of Commerce Dec. 29, 1986) (final admin. review).

56. *See id.*

57. *See id.*

highly competitive, consisting of numerous companies all competing for U.S. sales.⁵⁸ Based on record evidence that the market was highly competitive and on economic theory explaining that in highly competitive markets tax pass-through would be complete, Commerce found 100% pass-through.⁵⁹ This finding was appealed, and the CIT initially rejected it as not being sufficiently based on record evidence.⁶⁰ But as with the Korean case, the Federal Circuit decision in 1993 (discussed *infra*), reversing the CIT and reinstating Commerce's practice of using accounting evidence to presume complete pass-through, has rendered the issue moot.⁶¹

Ultimately, the Federal Circuit eliminated the issue in 1993 by reversing the CIT decisions and upholding Commerce's policy of presuming complete pass-through based on accounting records.⁶² The Federal Circuit put great weight on Commerce's discretion when interpreting the AD law, and explained:

The statute does not speak to tax incidence, shifting burdens, or pass-through, nor does it contain any hint that an econometric analysis must be performed. The statutory language does not mandate that [Commerce] look at the effect of the tax on consumers rather than on the Korean company. The reality is that, as an unavoidable incident of any sale by the company, these taxes can only be recouped in their entirety from purchasers.⁶³

The Federal Circuit appears to have been influenced by the complexity and difficulty of the several years of economic studies. After noting the "onerous burden" imposed by the CIT decision, the Federal Circuit went on to state, "In contrast to the commercial facts available in sales receipts, tax returns and other accounting records, an econometric analysis of tax pass-through requires numerous subsidiary market inquiries, entails a high degree of speculation based on one economic theory rather than another, and produces results of dubious soundness."⁶⁴ Although one could debate whether accounting or economic approaches to commodity tax pass-through produced results of more "dubious soundness," as a legal matter, the issue was resolved with this Federal Circuit decision.⁶⁵

58. *See id.*

59. *See id.* at 46,904.

60. *Zenith Elecs. Corp. v. United States (Zenith V)*, 17 Ct. Int'l Trade 51, 53 (1993).

61. *See Daewoo II*, 6 F.3d 1511, 1520 (Fed. Cir. 1993).

62. *Id.*

63. *Id.* at 1517.

64. *Id.* at 1518.

65. *Id.* at 1518-19.

B. Commerce and Pass-Through—The Second Time Around

Under the new statute, Commerce has had to return to the issue of pass-through.⁶⁶ This first implementation was announced in a preliminary determination in May 2012 and was said to be finalized in August 2012.⁶⁷ This decision arose in the context of section 129 implementation proceedings for the adverse WTO decisions to a Chinese challenge to four different U.S. CVD orders.⁶⁸ Commerce had delayed action in that implementation proceeding, probably in large part to wait for the new legislation authorizing an adjustment for domestic subsidies. By the time Commerce turned to the pass-through issue, time was severely limited, and Commerce repeatedly cited the insufficient period of time as one of the reasons for the particular methodological choices being made in that determination.⁶⁹

In this determination, Commerce calculated a single pass-through rate. Commerce determined this rate of pass-through by calculating what it termed a “Ratio Change Test,” the ratio of two price series drawn from the Bloomberg database.⁷⁰ More specifically, Commerce took the producer price index in China (Bloomberg symbol CHEFTYOY) and divided by the purchasing price index in China (Bloomberg symbol CNPPIY).⁷¹ Both of these ratios are determined monthly, comparing the value from the same month in the prior year.⁷² Commerce specifically

66. See Act of Mar. 13, 2012, Pub. L. No. 112-99, 126 Stat. 265 (2012) (to be codified at 19 U.S.C. §§ 1671, 1677f-1).

67. See Implementation of Determinations Under Section 129 of the Uruguay Round Agreements Act: Certain New Pneumatic Off-the-Road Tires; Circular Welded Carbon Quality Steel Pipe; Laminated Woven Sacks; and Light-Walled Rectangular Pipe and Tube from the People’s Republic of China, 77 Fed. Reg. 52,683, 52,683-84 (Dep’t of Commerce Aug. 30, 2012).

68. Commerce released four separate memoranda for each of the four different orders: Certain New Pneumatic Off-the-Road Tires, Circular Welded Carbon Quality Steel Pipe, Laminated Woven Sacks, and Light Walled Rectangular Pipe and Tube. Each is a Memorandum from Christopher Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, U.S. Department of Commerce, to Paul Piquado, Assistant Secretary for Import Administration, U.S. Department of Commerce, July 31, 2012, and each addresses the aforementioned orders as a whole *and* in terms of the specific details relating to a particular action. For ease of reference, if there is a specific issue that affects, and therefore appears in, only one of them, the memorandum will be referred to as follows: the one pertaining to Certain New Pneumatic Off-the-Road Tires (Memo I); the one pertaining to Circular Welded Carbon Quality Steel Pipe (Memo II); the one pertaining to Laminated Woven Sacks (Memo III); and the one pertaining to Light Walled Rectangular Pipe and Tube (Memo IV). If the information is general, citations will be made to Memo I, because the substantive information in each (except for the specific references) is the same.

69. Memo I, *supra* note 68, at 26.

70. *Id.* at 22-24.

71. *Id.* at 22-23.

72. *Id.* at 23.

noted that this method of comparing a finished-good price index with an intermediate-good price index is a typical approach for studying how input costs pass through to finished-goods prices over time.⁷³

In adopting this particular methodology, Commerce made a number of decisions about the approach. Not surprisingly, many of these decisions were challenged by the parties in their comments on the methodology announced in the preliminary determination on May 31, 2012.⁷⁴

*Commerce made its determination for the Chinese manufacturing sector overall, not for a particular industrial sector.*⁷⁵ This decision appears to have reflected the fact that the section 129 proceedings covered four different AD and CVD orders on (1) off-the-road tires, (2) circular welded carbon steel pipe, (3) light-walled rectangular carbon steel pipe and tube, and (4) laminated woven sacks.⁷⁶ The variety of products at issue made a single determination more attractive. Moreover, these four orders covered products with more limited, industry-specific data. It might have been possible to find useful, industry-specific data for the two steel products, but the other two products almost certainly did not have useful industry-specific data readily available.

In its final determination responding to the complaints by the domestic parties, Commerce affirmed the use of national data,⁷⁷ relying on the time constraints of the specific section 129 investigations.⁷⁸ Commerce also noted that China's responses for all four cases suggested enough similarities to justify the use of a single manufacturing average for these four particular industries.⁷⁹ Finally, Commerce noted that it had found record evidence in each of the four individual cases to justify finding that the specific foreign producers had booked to their accounting records the input items that had received the domestic subsidies.⁸⁰ But the discussion of this issue was rather limited, and it is likely to be fiercely contested in future cases.

Commerce also made its determination for all companies in the Chinese manufacturing sector, not for specific companies in the specific sectors.⁸¹ Although Commerce sent a questionnaire to China's

73. *Id.* at 23-24.

74. *Id.* at 15-37.

75. *Id.* at 20-21.

76. *See* sources cited *supra* note 68.

77. Memo I, *supra* note 68, at 20-21.

78. *Id.* at 20.

79. *Id.* at 20-21.

80. *Id.* at 24-26.

81. *Id.* at 26.

government,⁸² it did not make any additional efforts to gather additional company-specific data. Commerce had some company-specific data for the Chinese producers from the original investigations, but time constraints made it unrealistic for Commerce to do much work with this data. That being said, Commerce did review the records of each case to find evidence of the companies’ booking as cost items the inputs that had received subsidies.⁸³

*In a crucial decision, Commerce determined this pass-through ratio only for variable costs.*⁸⁴ Commerce did not consider fixed costs or total costs (variable and fixed costs), even though many of the alleged subsidies related to fixed cost items, such as land.⁸⁵ Commerce cited to some analyst reports to assert that purchasing managers were facing changing variable costs, but they were not particularly specific in distinguishing variable costs from total costs.⁸⁶ More likely, Commerce wished to focus on variable costs because the index being used reflected changes in the purchasing price index, which reflected changes in raw materials, fuels, and power—all variable costs.⁸⁷

China disputed this issue, but Commerce reaffirmed its approach in its final determination.⁸⁸ It argued that the evidence was limited and that China had not demonstrated the necessary price effects on other types of inputs, including fixed cost inputs.⁸⁹ Commerce had relied on a few brief comments made in Credit Lyonnais Securities Asia reports and construed those comments as only addressing partial pass-through of input costs, which Commerce took to mean variable cost inputs.⁹⁰ As with the issue of using broad manufacturing or narrower industry-specific measurements, this issue is likely to remain contentious.

It is worth noting that this focus on only variable costs meant the adjustment had very different impacts in the four different cases, based on the extent to which the subsidies at issue affected variable input costs. The following table summarizes the final adjustments made to the dumping margins for the investigated companies in the four cases:⁹¹

82. *Id.* at 8-12.

83. *Id.* at 18.

84. *Id.* at 22.

85. *Id.*

86. *Id.*

87. *See id.*

88. *Id.* at 21.

89. *Id.* at 22.

90. *Id.*

91. Implementation of Determinations Under Section 129 of the Uruguay Round Agreements Act: Certain New Pneumatic Off-the-Road Tires; Circular Welded Carbon Quality Steel Pipe; Laminated Woven Sacks; and Light-Walled Rectangular Pipe and Tube from the

Table 1: AD Margins in Commerce's Initial Double Remedy Adjustment

Case	Original AD Margins	Revised AD Margins
Circular Welded Carbon Steel Pipe	69.2%	45.35%
Off-the-Road Tires	12.91%	12.83%
Laminated Woven Sacks	64.28%	20.19%
Light Walled Rectangular Pipe	249.12%	247.90%

Only the cases involving circular pipe and woven sacks had significant adjustments to their AD margins.⁹²

Commerce made its determination to correspond with a particular six-month period.⁹³ Not surprisingly, this period corresponded to the six-month period of investigation from the underlying administrative proceeding.⁹⁴ (Commerce used the same pass-through rate in all four of the cases that were part of this combined section 129 implementation.) The actual pass-through used was for the October 2006 through March 2007 period, with the mean value of six data points at 0.6307.⁹⁵ Commerce also included in the decisional memorandum data for the same ratio for a longer period of time. It is worth summarizing the reported descriptive statistics for both time periods:⁹⁶

People's Republic of China, 77 Fed. Reg. 52,683, 52,686-88 (Dep't of Commerce Aug. 30, 2012). These margins are the most typical margins reported for most of the companies that received separate rates, but were not fully investigated mandatory respondents. *Id.* Some individual companies that were mandatory respondents had slightly different rates, but order of magnitude of the change in the AD margin is the same. *Id.* The same is true to the "all others rate" for each of these four cases. *Id.*

92. *Id.*

93. Memorandum from Christopher Mutz, Office of Policy, Imp. Admin., Dep't of Commerce, to Paul Piquado, Assistant Sec'y for Imp. Admin. 10 & n.53 (May 31, 2012) (on file with the U.S. Department of Commerce) (regarding certain new pneumatic off-the-road tires from China and Commerce's double remedies analysis). Attachment 2 following the memorandum shows this data graphically, identifying the period of time as being from October 2006-March 2007. *Id.* attachment 2.

94. *Id.* attachment 2. Commerce calculated the pass-through rate for all four cases simultaneously during this time period.

95. *Id.*

96. *Id.*

Table 2: Descriptive Statistics for Commerce’s Ratio Change Test

Descriptive Statistic	October 2006 to March 2007 (6 months)	January 2003 to December 2011 (108 months)
Mean	.6307	.5967
Std. Deviation	.0688	.1151
Median	.6370	.6110
High Value	.7143	.8661
Low Value	.5179	.2609

The six-month period used had somewhat more stable trends for both series and trended upwards for the entire six-month period while staying in the range of 50% to 70% pass-through. The longer period showed much more variability, with up and down trends that saw pass-through ranging from 25% to 85%.

None of the parties argued about the use of a six-month period or the use of this particular six-month period; however, they *did* argue about using old data about pass-through to determine adjustments to be applied prospectively.⁹⁷ Commerce relied on the ambiguity in the statutory term “relevant period” and reaffirmed its use of historical pass-through data that corresponded roughly to the period of investigation in the underlying cases.⁹⁸

*Commerce did not take into account market structure or the nature of competition in either the Chinese or the U.S. markets.*⁹⁹ The questionnaire given to China asked questions about conditions in the export market and the extent of intra-industry price competition, so Commerce signaled its awareness of this issue.¹⁰⁰ But given the limited response from China and the limited time to make a determination, Commerce did nothing with this issue.

The parties argued about this omission in their comments on the preliminary determination, but Commerce dismissed their assertions as being insufficiently documented.¹⁰¹ China argued about the degree of pass-through in competitive markets, but Commerce rejected this argument as not adequately addressing the distinction between shifting a supply curve and moving along a supply curve, and the implications of

97. Memo I, *supra* note 68, at 29-30.

98. *Id.* at 30 (internal quotation marks omitted).

99. *See id.* at 26-29.

100. *See id.* at 26.

101. *Id.* at 28.

each.¹⁰² The various domestic interests proposed other adjustments they claimed accounted for the different market structures, but Commerce rejected these arguments on the grounds that these changes “would nullify” the matching comparable data series, thus risking serious measurement issues if applied.¹⁰³

C. Commerce's Very Different Approaches

It is worth noting a few points of contrast with Commerce's first foray into determining pass-through back in the late 1980s. First, Commerce ignored the specifics of particular industries. In the early efforts at pass-through, Commerce and the parties consistently focused on the specific industry at issue—consumer color televisions.¹⁰⁴ In the section 129 cases, Commerce needed an easier solution and so turned to an overall average for the Chinese manufacturing sector. Commerce may reconsider this approach in future cases when it has more time, but in doing so, Commerce will have to balance the tension between specific findings for a specific industry and the administrative convenience of an overall approach that can apply to all manufacturing sectors. Decisions in particular cases may well vary depending on the availability of data and the extent to which parties present industry sector-specific arguments.

Second, given the use of an overall average for the manufacturing sector, Commerce made no efforts at company-specific estimates.¹⁰⁵ In the early efforts, Commerce sometimes required company-specific estimates.¹⁰⁶ When the Korean color television producers presented an argument based on a “typical” Korean producer, Commerce required the respondents to produce firm-specific estimates.¹⁰⁷ But when the Taiwan color television producers presented a more general argument based on the overall industry, Commerce accepted that approach.¹⁰⁸ Decisions in future cases may well vary depending on the willingness and ability of individual foreign producers to present data and the practicality of doing so for multiple companies.

102. *Id.* at 28-29.

103. *Id.* at 29.

104. *See* discussion *supra* Part III.A.

105. *See* Memo I, *supra* note 68, at 23-24.

106. *See supra* notes 45-65 and accompanying text. The Japan case and the Korea case both involved company-specific estimates. The Taiwan case involves arguments based on the Taiwan color television industry as a whole.

107. *See supra* notes 49-54 and accompanying text.

108. *See supra* notes 55-65 and accompanying text.

Third, the issue of variable versus fixed costs did not arise in the earlier pass-through disputes. The issue in the earlier cases involved the degree of pass-through for a specific cost item—a commodity tax.¹⁰⁹ The commodity tax was inherently a variable cost.¹¹⁰ While the economics of variable costs may be different, there is little justification to ignore fixed costs, which are often the more important part of costs for certain products. Moreover, because many of the subsidies Commerce has been investigating relate to fixed costs, to ignore fixed costs is to ignore an essential element of the issue Commerce has been directed to address.

Fourth, the issue of period of time always arises. In earlier efforts to measure pass-through, the various studies used different approaches, sometimes looking at data for longer periods of time but then drawing inferences for a particular period of time based on longer-term data.¹¹¹ Commerce has a tendency to focus on its “period of investigation,” but needs to resist the temptation to ignore broader periods of time when doing so makes more analytic sense. Focusing on a narrow six-month period will lead to excessive volatility because the inclusion or exclusion of one month will have a disproportionate impact on the mean value of the ratio Commerce has been using.

IV. THE ECONOMICS OF PASS-THROUGH: THE THEORY

As a theoretical matter, pass-through analysis reflects basic economic theory about supply and demand. The economic theory behind pass-through reflects core concepts in microeconomic theory.¹¹² As taught in Economics 101, a change in the cost of an input used to produce a widget will affect the quantity of that widget that will be supplied.¹¹³ This change affects the supply, which then affects the quantity demanded, resulting in a new equilibrium price and quantity.¹¹⁴ This basic framework has been set for the past century.

But this basic explanation needs to take into account a variety of important issues. The degree of pass-through will vary based on several

109. See *supra* notes 45-65 and accompanying text.

110. A commodity tax varies the price of the good and hence varies with variable costs. Fixed costs, by definition, do not vary.

111. See *supra* notes 45-65 and accompanying text.

112. Specifically, the flip-side to the issue of the pass-through of subsidies is the pass-through of taxes (a subsidy is a “negative” tax). Tax incidence is taught in nearly every undergraduate microeconomics course. See, e.g., N. GREGORY MANKIW, *PRINCIPLES OF MICROECONOMICS* ch. 6 (6th ed. 2012); PAUL KRUGMAN & ROBIN WELLS, *MICROECONOMICS* ch. 7 (2d ed. 2009).

113. See KRUGMAN & WELLS, *supra* note 112.

114. See *id.*

key factors. First, one must consider the nature of the demand and supply curves. The magnitude of these changes depends on various elasticities of demand, supply, and substitution.¹¹⁵ Second, one must decide on the scale being measured: the pass-through by a specific firm, the average pass-through for an industry, or the average pass-through for an economy.¹¹⁶ Third, one must consider the time horizon being evaluated.¹¹⁷ Many economic dynamics play out differently over the short term versus the longer term. Finally, one must consider the market structure and the nature of competition. We address each of these issues below.

A. The Economic Logic of Partial Pass-Through

There are several main lessons from the economic theory. *First, pass-through depends on the price elasticity of demand and the price elasticity of supply.*¹¹⁸ When demand is more inelastic, more of the subsidy (or tax) will be passed through.¹¹⁹ Inelastic demand is associated with goods or markets where consumers have a hard time reducing their quantity consumed (e.g., gasoline, insulin).¹²⁰ Conversely, when demand is elastic, the pass-through is small.¹²¹ The supply elasticity also matters. When supply is elastic, pass-through is larger than when supply is inelastic.¹²² Thus, it is quite possible that Commerce could determine very different pass-through rates for different products. In fact, if Commerce assesses pass-through for the class or kind of merchandise, it almost surely will not use the same pass-through rate for all investigations.

*Second, the availability of possible substitutes affects pass-through.*¹²³ All else equal, a good with close substitutes will have high pass-through while a good with few (or no) substitutes will have low pass-through.¹²⁴ For example, very little (if any) of a subsidy on gasoline would be realized in the consumers' price. By contrast, a subsidy on carbonated beverages would largely (or even fully) pass-through, due to intra-

115. MANKIW, *supra* note 112, ch. 5.

116. *See id.*

117. *Id.*

118. *See id.* ch. 6.

119. *See id.*

120. *See id.*

121. *See id.*

122. *See id.*

123. *See id.*

124. *See id.*

beverage competition (e.g., Coke versus Pepsi, or more broadly, carbonated beverages versus juices).

B. *Partial Equilibrium Modeling of Pass-Through*

The notion that subsidies are likely only partially passed through to the foreign price is well known within the U.S. trade policy community. Since the early 1990s, the United States International Trade Commission (Commission) has on various occasions used a technique referred to as “partial equilibrium modeling” to estimate pass-through rates in its injury analysis (under AD, CVD, and safeguard provisions) and to remedy recommendations (under safeguard provisions).¹²⁵ The Commission refers to this approach as COMPAS or “*Commercial Policy Analysis System*.”¹²⁶ The COMPAS model analyzes the impact of dumping and/or subsidized imports on the U.S. market.¹²⁷ In simple terms, COMPAS is a spreadsheet model that captures the impact of supply, demand, and substitution elasticities on prices (and, consequently, on pass-through).¹²⁸ The COMPAS model is based on industry-level data, implying that pass-through rates derived in this method reflect industry-level data, not firm-level data.¹²⁹

C. *The Scale Considered: The Firm, the Industry, or the Economy*

As discussed, pass-through can be measured at several levels. Commerce could collect pricing and input cost data for each firm and use this data to compute firm-specific pass-through rates. This is similar to what was done in the color television pass-through cases in the late 1980s and early 1990s.¹³⁰ The drawback to this approach is that it is relatively data intensive and requires considerable advance planning by Commerce to produce the estimates in a timely fashion.

At the other extreme, pass-through can be estimated using aggregate price data. This is what Commerce chose to do in its initial

125. Richard Boltuck, *Assessing the Effects on the Domestic Industry of Price Dumping*, in POLICY IMPLICATIONS OF ANTIDUMPING MEASURES 99, 115-16 (P.K.M. Tharakan ed., 1991).

126. Joseph Francois & Keith Hall, *COMPAS—Commercial Policy Analysis System Documentation* (U.S. Int’l Trade Comm’n, Working Paper No. 2007-12-A, 2007), available at http://www.usitc.gov/publications/332/working_papers/ec200712a.pdf.

127. *Id.*

128. *Id.*

129. *See id.*

130. *See Zenith I*, 10 Ct. Int’l Trade 268, 271-72 (1986); *Daewoo I*, 13 Ct. Int’l Trade 253, 255-56 (1989) (Korean color televisions); *Zenith II*, 15 Ct. Int’l Trade 394, 396 (1991) (Taiwanese color televisions).

effort to account for double remedies.¹³¹ Although this approach is convenient, its considerable drawback is that it fails to capture any and all important industry-specific factors that might make pass-through higher (or lower) for the actual product being investigated. Using the economy-wide average will surely understate pass-through rates for a highly competitive industry.

Finally, the middle ground involves estimating pass-through using industry-level data. The quality of the results depends crucially on the quality of the price indices. The United States, for instance, has devoted considerable effort to creating high quality import price indices on an industry basis.¹³² The United States Bureau of Labor Statistics also has very high quality price indices for many important manufacturing inputs and raw materials costs.¹³³

D. The Time Horizon: Short-Term Versus Long-Term Pass-Through

A highly robust result—both theoretically and empirically—is that pass-through increases over time. Textbook discussions often say that demand and supply become more elastic in the long run.¹³⁴

Firms often are unable to adjust prices in the shorter run due to the presence of long-term contracts or other pricing rigidities. Economists dub this phenomenon “sticky” prices.¹³⁵ Consequently, when a firm’s costs change, in the short- to medium-run (i.e., one to four quarters) measured pass-through will be smaller than it will be in the longer run (i.e., eight quarters).¹³⁶ What is the appropriate period of time? A subsidy received in January 2006 may only partially lower prices in December 2006, but may be completely passed through to prices by December 2007.

131. See Implementation of Determinations Under Section 129 of the Uruguay Round Agreements Act: Certain New Pneumatic Off-the-Road Tires; Circular Welded Carbon Quality Steel Pipe; Laminated Woven Sacks; and Light-Walled Rectangular Pipe and Tube from the People’s Republic of China, 77 Fed. Reg. 52,683 (Dep’t of Commerce Aug. 30, 2012).

132. See, e.g., Linda S. Goldberg, *Industry-Specific Exchange Rates for the United States*, 10 ECON. POL’Y REV. 1 (2004).

133. See *Producer Price Index*, U.S. DEP’T OF LABOR, BUREAU OF LABOR STATISTICS, <http://www.bls.gov/ppi/> (last visited Mar. 18, 2013).

134. MANKIW, *supra* note 112, ch. 5.

135. E.g., PAUL KRUGMAN & ROBIN WELLS, *MACROECONOMICS* 324-27 (2d ed. 2009).

136. See MANKIW, *supra* note 112, ch. 5.

E. The Nature of Competition: The Role of Market Structure and Conduct

Economic theory implies that competitive conditions affect pass-through. Said differently, economic theory implies that the elasticities depend on the competitive conditions. When a market is highly competitive (e.g., a situation with many alternative suppliers selling similar products), supply is highly elastic and pass-through of the subsidy to the import price will be high.¹³⁷ The intuition is that the alternative suppliers will compete away the value of the subsidy. If the market is perfectly competitive, then pass-through should be complete.

Market share affects pass-through. All else equal, firms with larger market share will have lower pass-through, stemming from their larger market power.¹³⁸ This means that domestic firms and exporting firms will likely have different pass-through rates because domestic firms generally control a far larger share of the market than do firms from any single foreign country.

V. THE ECONOMICS OF PASS-THROUGH: MEASUREMENT

Fortunately, policy makers addressing pass-through are not starting with a blank slate. Although this issue may be new to the legal community, it has been the subject of extensive work in the economics community. The challenge for lawyers, however, is to learn what economists have said about pass-through and to think about how those insights apply to the immediate problem of determining an amount of pass-through in specific trade remedy cases.

An enormous body of economics literature has examined pass-through both theoretically and empirically over the past two decades, and there is overwhelming evidence that pass-through is rarely complete or zero.¹³⁹ Even weak forms of the “law of one price,” which follows from

137. *Id.*

138. *Id.*

139. See Michael M. Knetter, *International Comparisons of Pricing-to-Market Behavior*, 83 AM. ECON. REV. 473, 475-78 (1993) [hereinafter Knetter, *International Comparisons*]; Michael M. Knetter, *Is Export Price Adjustment Asymmetric?: Evaluating the Market Share and Marketing Bottlenecks Hypothesis*, 13 J. INT'L MONEY & FIN. 55, 57-60 (1994); Pinelopi Koujianou Goldberg & Michael M. Knetter, *Goods Prices and Exchange Rates: What Have We Learned?*, 35 J. ECON. LITERATURE 1243, 1249-51 (1997); S. McCorriston et al., *Processing Technology, Market Power and Price Transmission*, 49 J. AGRIC. ECON. 185, 198 (1998); S. McCorriston et al., *Price Transmission: The Interaction Between Market Power and Returns to Scale*, 28 EURO. REV. AGRIC. ECON. 143 (2001); José Manuel Campa & Linda S. Goldberg, *Exchange Rate Pass-Through into Import Prices*, 87 REV. ECON. & STAT. 679 (2005); José Manuel Campa & Linda S. Goldberg, *Pass-Through of Exchange Rates to Consumption Prices: What Has Changed and Why?*, in 17 INTERNATIONAL FINANCIAL ISSUES IN THE PACIFIC RIM: GLOBAL

an assumption of symmetric pass-through, are rejected in empirical study after empirical study.¹⁴⁰ Economists have repeatedly found that pass-through will not typically be symmetric across destination markets.¹⁴¹ The robust empirical finding is that a cost shock will result in a price change of $x\%$ to one market but of $y\%$ to another market. Market structure, technology, upstream and downstream cost conditions, market share, the nature and duration of cost shocks, and product differentiation have all been found to affect pass-through.¹⁴²

Conveniently for private parties and for Commerce, the empirical question regarding how much of a change in the cost of a good is passed through to a good's final price is an issue where there is a large amount of empirical research. A recent literature review by Ariel Burstein and Gita Gopinath lists over 100 references, a number made more impressive when you realize the review primarily focuses on papers written in the last 15 years.¹⁴³ Commerce does not need to reinvent the wheel. It can follow in the well-traveled footsteps of academic economists.¹⁴⁴ Commerce should adopt approaches developed by academics and apply these insights to the specific cases before it.

Although there are a number of important theoretical analyses of pass-through, the basic economic theory of pass-through based on supply and demand is sufficient for the analysis required of Commerce.¹⁴⁵ Thus, the following discussion focuses on empirical approaches and findings in

IMBALANCES, FINANCIAL LIBERALIZATION & EXCHANGE RATE POLICY 139 (Takatoshi Ito & Andrew K. Rose eds., 2008) [hereinafter Campa & Goldberg, *What Has Changed and Why?*]; Linda S. Goldberg & José Manuel Campa, *The Sensitivity of the CPI to Exchange Rates: Distribution Margins, Imported Inputs, and Trade Exposure*, 92 REV. ECON. & STAT. 392 (2010).

140. See Kenneth Rogoff, *The Purchasing Power Parity Puzzle*, 34 J. ECON. LITERATURE 647, 647 (1996); Kenneth Rogoff, Kenneth A. Froot & Michael Kim, *The Law of One Price over 700 Years* 4 (Int'l Monetary Fund, Working Paper No. WP/01/174, 2001), available at <http://www.imf.org/external/pubs/ft/wp/2001/wpd1174.pdf>.

141. Campa & Goldberg, *What Has Changed and Why?*, *supra* note 139, at 139.

142. See sources cited *supra* note 139.

143. See Ariel Burstein & Gita Gopinath, *International Prices and Exchange Rates* (Oct. 2012) (unpublished manuscript), available at http://www.economics.harvard.edu/files/faculty/27_prices_oct20_2012.pdf (discussing papers written since the last prominent literature review on pass-through).

144. See, e.g., Cathy L. Jabara, *How Do Exchange Rates Affect Import Prices? Recent Economic Literature and Data Analysis* (U.S. Int'l Trade Comm'n Office of Indus., Working Paper No. ID-21, 2009) (offering a more concise literature review that pays special attention to results regarding pass-through of Asian exporters).

145. See Kenneth A. Froot & Paul D. Klemperer, *Exchange Rate Pass-Through When Market Share Matters*, 79 AM. ECON. REV. 637 (1989); see also Paul Krugman, *Pricing to Market When the Exchange Rate Changes*, in REAL-FINANCIAL LINKAGES AMONG OPEN ECONOMIES 49, 56, 62 (Sven W. Arndt & J. David Richardson eds., 1987).

pass-through literature. This literature helps answer the question, “How much pass-through actually occurs?”

A. *A Few Caveats*

Before discussing some of the key lessons academics have learned regarding pass-through, we make a couple of preliminary comments. First, in this Article we avoid the specifics of how one actually estimates pass-through. We instead discuss major themes and robust insights in the literature. We stress, however, that in general, estimating pass-through is not a straightforward exercise. The sensitivity of a good’s price to changes in its costs often differs from a simple correlation between prices and costs because of independent activity in the production or demand sectors; this is especially true when the pass-through is estimated over a longer-run horizon. Models used to estimate pass-through must control for other forces that affect a firm’s price, such as demand conditions in the importing country and market power considerations. As an example, we expect a foreign monopolist to pass-through a cost change differently than a foreign firm competing in a highly competitive industry. This suggests that Commerce’s approach in its initial decision could be improved.

Second, the “change in cost” is due to Commerce’s finding of a domestic subsidy program. For example, Commerce needs to determine how much a foreign firm’s export price changed due to a subsidy that lowered costs by 5%. Much of the academic literature has focused on changes in the exchange rate as the basis for the change in cost. Although the source of the change in cost varies, the basic theory behind the pass-through is the same. We therefore believe this economics literature offers important insights, even though it focuses on a different change in cost.

Third, with respect to the double remedies issue, the exporter of interest will generally be in China. Although there are some trade disputes involving Vietnam, most involve China.¹⁴⁶ The existing empirical studies have generally used U.S. or Organisation for Economic Co-operation and Development (OECD) export or import data.¹⁴⁷ This approach primarily reflects data availability and data quality rather than indicating that the existing empirical approaches only apply to developed

146. See Andrew B. Bernard, Chinese Exporters, Exchange Rate Exposure, and the Value of Renminbi (Feb. 2008) (unpublished manuscript), *available at* <http://mba.tuck.dartmouth.edu/pages/faculty/Andrew.Bernard/xrchina.pdf>.

147. See, for example, Burstein & Gopinath, *supra* note 143, for a literature review focusing primarily on studies done in the past fifteen years.

countries. There is nothing inherently special about the Chinese industries or products that make it difficult to apply existing pass-through estimation techniques.¹⁴⁸ This is especially the case because Commerce needs to study pass-through to import prices, not pass-through to China's home market prices. High quality import price indices already exist for the U.S.

B. "Consensus" Evidence for Partial Pass-Through

*Empirical finding #1: Pass-through is almost always "incomplete"—a 1% decrease in the cost of a good will lead to a decrease of less than 1% in the price of the export good.*¹⁴⁹

Put differently, pass-through is rarely 0 or 1. Not surprisingly, *the far more common pattern is to find less-than-complete pass-through.*¹⁵⁰

This empirical finding is itself quite interesting, as it is fundamentally at odds with the legal premise of the AD and CVD margins. When determining an NME AD margin, Commerce ignores the prices in the foreign market and so ignores even the possibility of a subsidy lowering that domestic price.¹⁵¹ When determining a CVD margin, Commerce assumes that a domestic subsidy is fully passed through to the final price.¹⁵² The statute requires Commerce to offset the full amount of the subsidy and does not care about whether or how much the subsidy actually affects the price.¹⁵³ This approach allows Commerce to levy a CVD equal to the full value of the calculated subsidy amount. This assumption underlying the law, however, has no credible support in the empirical literature.

The empirical finding of *incomplete* pass-through has strong support in the literature.¹⁵⁴ Using broadly defined price indices, Rebecca Hellerstein, Deirdre Daly, and Christina Marsh report that from 1985 to 2005, the average pass-through rate for the United States was 51%, an estimate that accords well with traditional estimates of a one-year pass-

148. Bernard, *supra* note 146 (discussing, but estimating, pass-through in the context of Chinese exports of textiles and apparel).

149. See sources cited *supra* note 139.

150. See sources cited *supra* note 139.

151. For further elaboration on this topic, see Thomas J. Prusa & Edwin Vermulst, *United States—Anti-Dumping and Countervailing Duties on Certain Products from China: Passing the Buck on Pass-Through*, J. WORLD TRADE (forthcoming 2013).

152. *Id.*

153. See 19 U.S.C. § 1671(a) (2006) (requiring an offsetting duty "equal to the amount of the net countervailable subsidy"); *id.* § 1677(6) (defining "net countervailable subsidy" as the gross subsidy minus certain specific offsets; no offset for less than complete pass-through of the subsidy).

154. See sources cited *supra* note 139.

through rate of about 50%.¹⁵⁵ These estimates imply that U.S. import prices generally fall by about 0.5% following a 1% decrease in foreign supplier costs (e.g., due to a subsidy).¹⁵⁶

The findings by Hellerstein, Daly, and Marsh are remarkably robust. Burstein and Gopinath also use aggregate price data to estimate pass-through for eight industrialized countries (during the period from 1975 to 2011); they find all eight countries have two-year pass-through rates between zero and one, with a low of 47% for Switzerland to a high of 97% for France.¹⁵⁷ The study by José Manuel Campa and Linda Goldberg also uses aggregate price data to estimate pass-through for twenty-three OECD countries for the period 1975-2003; they report an average one-year pass-through rate of 64%.¹⁵⁸

These empirical findings provide an important base-level insight. Although there may be different circumstances in a particular case, in general, one should expect to find pass-through rates in the 40%-60% range, at least for the U.S. market.¹⁵⁹ When parties are making arguments, or agencies are making decisions, they should be increasingly skeptical when arguments about pass-through suggest a pass-through rate radically different from these norms (i.e., either zero or one). Note there may well be specific reasons why pass-through is higher or lower in a particular case, but there should be some articulated (and factually supported) reason for the difference.

155. Rebecca Hellerstein et al., *Have U.S. Import Prices Become Less Responsive to Changes in the Dollar?*, 12 CURRENT ISSUES ECON. & FIN. 1, 3 (2006); Goldberg & Knetter, *supra* note 139, at 1249-50. The traditional approaches use much more disaggregated data than the Hellerstein study, so the consistency between the estimates is noteworthy. As is often done, they exclude petroleum products from their data.

156. In an important work, Gopinath, Itskhoki, and Rigobon tackle a much discussed, but difficult to estimate, subtlety in the pass-through literature—the impact of currency invoicing. Gita Gopinath & Oleg Itskhoki, *Frequency of Price Adjustment and Pass-Through*, 125 Q.J. ECON. 675 (2010); Gita Gopinath et al., *Currency Choice and Exchange Rate Pass-Through*, 100 AM. ECON. REV. 304 (2010). They find a very large difference in pass-through rates for exports destined for the U.S. market depending upon whether the transaction is denominated in dollars or nondollars. Gopinath & Itskhoki, *supra*, at 697; Gopinath et al., *supra*, at 304. The pass-through rate for dollar-denominated trade is 25% as compared to 95% for nondollar denominated trade. Gopinath et al., *supra*, at 304. The overall average of about 50%, therefore, reflects the fact that the majority of U.S. imports are denominated in dollars.

157. Burstein & Gopinath, *supra* note 143, at 4, 63.

158. Campa & Goldberg, *Exchange Rate Pass-Through into Import Prices*, *supra* note 139, at 679.

159. *See id.*

C. *Pass-Through and the Aggregation of Data*

Empirical finding #2: Pass-through will vary depending on the level at which it is measured. Pass-through can be estimated using many alternative data sources, ranging from aggregate price data (e.g., all manufacturing imports) to industry-level data to firm-level data to product-level data.¹⁶⁰ There is no robust finding regarding what type of data (highly disaggregated or highly aggregated) yields higher pass-through.

Economists have estimated pass-through using a diverse set of data sources, from highly disaggregated firm-level data to highly aggregated import and export price indices, from detailed 9-digit product-level data to 3-digit industry-level data.¹⁶¹ The breadth of existing studies makes it clear that pass-through can be estimated using a wide range of data sources.¹⁶²

The early prominent work used highly detailed 7-digit product-level data as a way to bypass complications due to differences in technology and market structure.¹⁶³ Michael Knetter gathered export prices on homogeneous products (e.g., dry desiccated onions) and estimated pass-through by exploiting exchange rate variation across destination markets.¹⁶⁴ He finds a range of pass-through rates from 30% to 70%.¹⁶⁵ Craig Parsons and Kiyotaka Sata follow a similar strategy using Japanese 9-digit product-level data and get a comparable range of pass-through rates.¹⁶⁶

Campa and Goldberg analyze pass-through using industry-level data.¹⁶⁷ They find pass-through rates vary considerably across industry and exporting country.¹⁶⁸ For instance, they demonstrate that the pass-through rate for energy products (77%) is much higher than for manufactured goods (62%).¹⁶⁹

160. See Goldberg, *supra* note 132; Hellerstein et al., *supra* note 155; Knetter, *International Comparisons*, *supra* note 139.

161. See sources cited *supra* note 139.

162. Burstein & Gopinath, *supra* note 143 (focusing primarily on studies done in the past fifteen years).

163. See, e.g., Knetter, *International Comparisons*, *supra* note 139, at 477.

164. *Id.* at 475, 483; Michael M. Knetter, *Price Discrimination by U.S. and German Exporters*, 79 AM. ECON. REV. 196, 203-04 (1989).

165. Knetter, *supra* note 164.

166. Craig R. Parsons & Kiyotaka Sato, *New Estimates of Exchange Rate Pass-Through in Japanese Exports*, 13 INT'L J. FIN. & ECON. 174 (2008).

167. See Campa & Goldberg, *Exchange Rate Pass-Through into Import Prices*, *supra* note 139, at 679; Campa & Goldberg, *What Has Changed and Why?*, *supra* note 139, at 144; Campa & Goldberg, *The Sensitivity of the CPI*, *supra* note 139, at 392-93.

168. Campa & Goldberg, *What Has Changed and Why?*, *supra* note 139, at 144.

169. *Id.*

Hellerstein, Daly, and Marsh estimate pass-through rates using both aggregate pricing data and 2- and 3-digit industry-level data.¹⁷⁰ The industry-level results reveal the overall average (51%) partially reflects changing trade volume across industries.¹⁷¹ When they statistically control for such changes, their pass-through rate falls to 36%.¹⁷² This means that a foreign firm decreases its destination (export) price by about .3% following a 1% decrease in its costs.¹⁷³

Gita Gopinath, Oleg Itskhoki, and Roberto Rigobon make arguably the most detailed effort to measure pass-through.¹⁷⁴ They use firm-level import prices (transaction level) from a variety of exporting countries to estimate pass-through,¹⁷⁵ and they find incomplete pass-through pervasive, most often in the 40% to 60% range.¹⁷⁶

D. Short-Run Versus Long-Run Perspectives

Empirical finding #3: Pass-through rate varies depending upon time horizon.¹⁷⁷ Pass-through is smaller the shorter the time horizon examined.¹⁷⁸

Economists distinguish between short-run and long-run pass-through.¹⁷⁹ By “short-run,” economists typically mean price changes that occur within a quarter or two of the cost change.¹⁸⁰ By “long-run,” economists mean price changes that occur within one to two *years* of the cost change.¹⁸¹

In the preceding discussion we have cited long-run pass-through rates. It is not surprising that economists find pass-through rates are smaller in the short-run. On average, Campa and Goldberg report that the short-run pass-through rate is about two-thirds as large as the long-

170. Hellerstein et al., *supra* note 155, at 2.

171. *Id.* at 3.

172. *See id.*

173. *See id.*

174. *See* Gopinath & Itskhoki, *supra* note 156.

175. *Id.* at 680, 688.

176. *See id.* at 684.

177. Campa & Goldberg, *Exchange Pass-Through into Import Prices*, *supra* note 139, at 687.

178. *Id.*

179. *Id.* at 683, 690.

180. Empirically, economists considered pass-through rates estimated from one to four quarters as short-run estimates. *Id.*

181. Burstein & Gopinath, *supra* note 143, at 10.

run pass-through rate (46% versus 64%).¹⁸² Similar differences are reported by Burstein and Gopinath.¹⁸³

E. The Role of Market Structure and Competition

Economists are acutely aware that pass-through depends on market structure and competitive conditions. Competitive industries will generally have high pass-through rates; on the other hand, oligopolistic industries' pass-through rates can vary depending on exactly the number of firms, technology issue (e.g., increasing returns to scale), and demand.¹⁸⁴ For these industries, pass-through need not fall between zero and one, but can easily exceed one. This has been documented by Larry Karp and Jeffrey Perloff in their study of the Japanese television market.¹⁸⁵ More generally, Campa and Goldberg document numerous examples of pass-through rates exceeding one, especially in the long-run.¹⁸⁶

The variation in pass-through depending on the market structure is a primary reason many researchers prefer industry- or firm-level pass-through estimates.¹⁸⁷ Pass-through estimated at more aggregate levels likely averages across industries of very different market structures and thus potentially does not represent the actual pass-through in any single industry.¹⁸⁸

The confounding effects of market structure can be seen by looking at an industry that has often been the subject of AD and CVD trade actions, the flat-rolled steel industry. One segment of the industry, hot-rolled steel, has many, many producers; there are over a dozen U.S. producers of hot-rolled steel alone.¹⁸⁹ By contrast, a related but more specialized segment of the industry, tin-plated steel, has just a few producers.¹⁹⁰ In the United States, there are only two steel companies that produce tin-plated steel.¹⁹¹ Consequently, one would expect competitive

182. Campa & Goldberg, *Exchange Pass-Through into Import Prices*, *supra* note 139, at 679, 682.

183. *See* Burstein & Gopinath, *supra* note 143.

184. Campa & Goldberg, *Exchange Pass-Through into Import Prices*, *supra* note 139, at 680-81.

185. *See, e.g.*, Karp & Perloff, *supra* note 45.

186. Campa & Goldberg, *Exchange Pass-Through into Import Prices*, *supra* note 139, at 682.

187. *See* Goldberg & Knetter, *supra* note 139, at 1267.

188. *Id.*

189. *See* Steel Inv. No. TA-201-73, USCIT Pub. 3479 (Dec. 2001) (three volumes).

190. *Id.*

191. *Id.*

pressures to result in different pass-through rates for hot-rolled steel as compared with tin-plated steel.

VI. CONCLUDING THOUGHTS

A. *Issues that Commerce Should Address*

In light of the above discussion, we believe there are several key issues that Commerce will need to address as it develops its approach toward measuring the extent of double remedies.

The preferred data for the analysis. Due to time limitations, Commerce opted for aggregate price and cost data from Bloomberg to compute pass-through.¹⁹² Although the measured pass-through rate (about 60%) is in the range typically reported by many academic studies, the academic literature also makes it clear that pass-through rate varies considerably by the type of data used: firm-level, industry-level, or country-level.¹⁹³ Given the statutory language, in our opinion Commerce would be on better legal ground if it used firm- or industry-level data to estimate pass-through rates. Given the massive literature Commerce can draw on, the extra effort to estimate precise industry- or product-level pass-through rates should not be considered onerous.

Moreover, the academic literature also makes it clear that the simple correlation analysis done by Commerce is likely biased. Other events or shocks that occurred in the sample period should have been controlled for. As we have emphasized, Commerce should not decline to perform this more sophisticated pass-through study because it is perceived to be overly arduous. There are dozens of related studies showing Commerce how such adjustments can be factored in with little extra burden.

Commerce’s approach in the initial investigation (or something similar to that approach) would seem appropriate in cases when the record is incomplete. In such circumstances, using aggregate price and cost data would be an appropriate benchmark adjustment. This does not mean, however, that the simple approach adopted by Commerce in the initial case is a “best practice” when better data is available.

Time Horizon. Commerce compared year-over-year price and cost changes in its initial pass-through study.¹⁹⁴ Although the statute is silent on the exact time frame that should be used, it is clear that firms are continuing to make price adjustments (for a given cost change) for at

192. See sources cited *supra* note 68.

193. See Campa & Goldberg, *Exchange Rate Pass-Through into Import Prices*, *supra* note 139, at 679-81; Goldberg & Knetter, *What We Have Learned?*, *supra* note 139, at 1267.

194. Memo I, *supra* note 68, at 25-26.

least eight quarters. If Commerce wants to capture the actual pass-through rate, it should opt for a two-year pass-through rate.

Moreover, the methods used in the academic literature also suggest Commerce's approach toward creating the "average pass-through" rate should be adjusted. The methods in the literature involve simple regression analysis where the quarterly pass-through rates are cumulated to compute the one-year or two-year pass-through rate.¹⁹⁵ By contrast, Commerce simply averaged one-year pass-through correlations.¹⁹⁶

Nature of competition in the market. Regardless of the data used, Commerce will have to address how it is adjusting its estimates to account for differences in the competitive marketplace. An average pass-through rate might be appropriate for many cases, but it is surely inappropriate when cases involve hundreds of small firms, which is actually quite typical in numerous Chinese industries. Economic theory is unambiguous in concluding that pass-through is high, if not complete, when a market is highly competitive.

B. Issues the Courts and the WTO Will Face

Pass-through has had a contentious history, and there is every reason to believe this will continue. Indeed, this first effort by Commerce to use the new law to implement U.S. WTO obligations is currently back before the WTO, where the WTO will have to review the steps taken by Congress and Commerce to evaluate their WTO consistency.¹⁹⁷ As these issues play out before Commerce and are appealed, U.S. courts and the WTO will need to address, among others, the following issues.

Who has what burden of proof? This issue will probably play out differently depending upon the legal settings. U.S. law gives Commerce more discretion in allocating the burden of proof and generally presumes

195. Campa & Goldberg, *Exchange Rate Pass-Through into Import Prices*, *supra* note 139; Campa & Goldberg, *What Has Changed and Why?*, *supra* note 139.

196. *See supra* note 93 and accompanying text.

197. *See United States—Definitive Anti-Dumping and Countervailing Duties on Certain Products from China: Current Status*, WORLD TRADE ORG., http://www.wto.org/English/tratop_e/dispu_e/ds379_e.htm (last visited Mar. 19, 2013). The United States has reported to the WTO on the status of its actions to date:

At the DSB meeting on 31 August 2012, the United States said that it had brought the measures at issue in this dispute into full compliance with the DSB recommendations and rulings. At the DSB meeting on 28 September 2012, China made a statement that it did not agree with the U.S. claim that it had fully complied with the DSB recommendations and rulings.

Id. China has not yet formally requested an article 21.5 implementation panel.

that respondents must demonstrate their eligibility for an adjustment.¹⁹⁸ WTO obligations, however, often require authorities to make a good faith effort to investigate issues and not to impose unreasonable burdens on the parties to avoid the agency’s own obligations.¹⁹⁹ Given these overlapping obligations, one can expect Commerce to seek a balance—not doing dramatically more than it need do under U.S. law, but doing enough to be able to defend itself credibly in the WTO.

To what degree can presumptions replace analysis of specific record facts? The early experience with pass-through in the late 1980s shows how complicated econometric measurement can become. Not surprisingly, Commerce is now much less willing to go down such paths. The recent implementation shows a hybrid approach: taking some record facts and then using them to justify a simplistic, presumption-type approach. Commerce did a very simple analysis that very crudely measured variable cost pass-through over a narrow six-month window for the Chinese manufacturing sector, and then essentially presumed that this rough estimate made sense for a variety of specific industries.²⁰⁰ Although certainly better than assuming no pass-through, this simplistic approach can be dramatically improved. But it is unclear the extent to which Commerce will continue to prefer an overarching approach that can apply to many or all cases or begin to develop more tailored approaches that reflect the greater availability of details and facts in certain industries and cases. The challenges for courts and the WTO will be to evaluate Commerce decisions to forego other options. When is an authority justified in ignoring a better approach just because some other approach is easier to administer? Can an authority use a broad estimate for the entire manufacturing sector if one of the parties presents a detailed estimate for that specific industry, which could be a higher estimate (if submitted by Chinese respondents) or a lower estimate (if submitted by domestic petitioners)?

How much detail is reasonable? Commerce can be somewhat inconsistent, sometimes pursuing methodologies that are excessively detailed and sometimes accepted methodologies that are unnecessarily

198. 19 C.F.R. § 351.40(b)(1) (2012) (providing that the interested party seeking the adjustment has the burden of establishing the amount and nature of the adjustment); *see, e.g.*, Folding Metal Tables and Chairs from the People’s Republic of China, 77 Fed. Reg. 13,539, 13,542 (Dep’t of Commerce Mar. 7, 2012) (prelim. admin. review) (placing burden on respondent to affirmatively present evidence justifying an adjustment).

199. Ironically, the WTO Appellate Body stressed this very point in the WTO challenge to Commerce’s practice of ignoring double counting that led to new legal requirement for pass-through. Appellate Body Report, *supra* note 5, ¶ 602.

200. *See supra* notes 67-103 and accompanying text.

crude. On one level, courts and the WTO will respect a reasonable exercise of discretion about methodologies. But courts and the WTO will also have an obligation to review critically the use of that discretion to prevent abuses.

What happens when the record evidence is incomplete? The hardest cases may prove to be those where the parties do not engage the issues fully before the agency, but then decide to fight the issues before the courts and the WTO. For example, with Commerce having found 63% pass-through using its crude estimate based on price indices, could Commerce ignore that finding for the entire manufacturing industry in a future case because some smaller Chinese companies were unable or unwilling to answer detailed questionnaires? Or having found a method for variable costs, can Commerce continue in future cases to do nothing about fixed costs, even though many of the most common subsidies involve fixed costs or other aspects of the cost structure of companies not being captured by the current Commerce methodology?

None of these questions has easy answers. Much will depend on the forum (U.S. law and WTO obligations differ), the specific facts of each case (low-tech carbon steel pipe is very different from high-tech solar panels), and the intensity with which parties in particular cases are willing to fight about the issues (larger companies with deeper pockets tend to fight more aggressively than smaller companies that must depend on their government) or else give up. Rather than resolve the issue, the new law has just recast the issue and created a new set of challenges to be resolved.