Postal Regulatory Commission
Submitted 3/9/2017 2:02:45 PM
Filing ID: 99335
Accepted 3/9/2017

Before the
POSTAL REGULATORY COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Institutional Cost Contribution	)	Docket No. RM2017-1
Requirement for Competitive Products	)	
	)	

REPLY DECLARATION OF J. GREGORY SIDAK
ON BEHALF OF UNITED PARCEL SERVICE

March 9, 2017

EXECUTIVE SUMMARY

1. The Postal Accountability and Enhancement Act (PAEA)[1] of 2006 mandates that revenues from competitive products cover an "appropriate share" of the Postal Service's institutional cost, which the Postal Regulatory Commission (PRC) must determine and review at least every five years.[2] In its first review in 2012, the PRC decided to maintain the appropriate share at its initial level of 5.5 percent. In my initial declaration, I explained that the PRC's 2012 analysis was flawed, and that it relied upon a now-outdated understanding of the Postal Service's business model.[3] To protect consumers of both market-dominant and competitive products and to improve the Postal Service's financial condition, the PRC should increase the proportion of institutional costs that revenues from competitive products must cover.

2. In this Reply Declaration, I principally address the opinions that Professor John Panzar expressed in his declaration on behalf of Amazon.[4] He contends that "the Commission should eliminate the minimum contribution requirement."[5]

3. Professor Panzar's conclusions are based on inaccurate assumptions. By assumption, he ignores the most salient economic features that distinguish the Postal Service from a private firm providing competitive delivery services. Those salient features create the incentive and the ability for the Postal Service to harm its competitors. By assumption, Professor Panzar gives the Postal Regulatory Commission (and, by extension, the Postal Service itself) the legal

1. Pub. L. 109-435, 120 Stat. 3201 (2006).
2. 39 U.S.C. § 3633(a)–(b).
3. *See* Declaration of J. Gregory Sidak on Behalf of United Parcel Service, In the Matter of Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1, at 10–16 (filed Jan. 23, 2017) [hereinafter Sidak Initial Declaration].
4. Declaration of John C. Panzar for Amazon Fulfillment Services, Inc., Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (filed Jan. 23, 2017) [hereinafter Panzar Declaration].
5. *Id*. at 2.

responsibility for policing competition in markets for non-dominant (that is, *competitive*) products that the Postal Service provides. By assumption, Professor Panzar makes the Postal Service a profit-maximizing firm. By assumption, Professor Panzar imposes a theoretical cost structure and demand conditions on the Postal Service's competitive products business that preordain his conclusions and yet are divorced from any analysis of actual market conditions.

4. These assumptions made by Professor Panzar are erroneous. The opinions that flow from them are unreliable. Were Professor Panzar to submit his declaration as expert testimony in federal district court—which is, unlike the PRC, a proper forum for an antitrust case against a private firm—his testimony would be inadmissible under the Supreme Court's *Daubert* standard for expert testimony. In evaluating the appropriate share of institutional costs that competitive products should cover, the PRC should hold economic experts to no lower a standard.

5. Moreover, Professor Panzar's declaration ignores the incentives and opportunity for Amazon and other large shippers to engage in rent-seeking behavior at the expense of consumers of market-dominant products and, ultimately, at the expense of taxpayers. Amazon freely admits its influence on the Postal Service's operations—an influence whose scope and cost is largely shielded from public view. When combined with the Postal Service's opaque and complicated cost accounting, Amazon's special relationship with the Postal Service creates the incentive and opportunity for cross-subsidization of Amazon deliveries by market-dominant consumers. Even absent cross-subsidization, removing the appropriate-share requirement would invite the Postal Service to continue its transformation into a low-cost shipping center for large retailers while spiraling deeper into debt. The PRC should protect the interests of market-dominant consumers and the financial stability of the Postal Service—not the bottom line of shippers. Increasing the appropriate share will ease market-dominant products' cost-recovery

burden and improve the Postal Service's financial condition by requiring competitive products to make a substantial contribution to overhead.

I. PROFESSOR PANZAR'S IMPLICIT ASSUMPTION THAT THE POSTAL SERVICE MAXIMIZES PROFIT PRODUCES INCORRECT CONCLUSIONS

6. Underlying much of Professor Panzar's analysis is the incorrect assumption that the Postal Service maximizes profits. To the contrary, the appropriate-share requirement provides a necessary check on the Postal Service's incentive and ability to price competitive products below the profit-maximizing level and possibly below cost.

A. The Postal Service Has the Incentive to Expand Its Scale at the Expense of Profit

7. Nowhere in Professor Panzar's declaration is there any recognition that, as a state-owned enterprise, the Postal Service acts differently from a privately owned, profit-maximizing firm that is subject to public utility regulation. Professor Panzar asserts that it "has been the standard conclusion of economists" that "[a] price floor equal to incremental costs ensures that competitive products are not being subsidized by other products, thereby promoting competition and benefiting consumers."[6] However, the three sources that Professor Panzar cites in support of that proposition do not specifically analyze optimal regulation of public enterprises whose objectives diverge from profit maximization.[7] Professor Panzar's presentation of incremental-cost price floors as an economic consensus is misleading in the context of a public enterprise—

6. *Id.* at 5 & n.4 (citing W. KIP VISCUSI, JOSEPH HARRINGTON & JOHN VERNON, ECONOMICS OF REGULATION AND ANTITRUST (MIT Press 4th ed. 2005); WILLIAM BAUMOL, JOHN PANZAR & ROBERT WILLIG, CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE (Harcourt 2d ed. 1988); Ronald Braeutigam, *Optimal Policies for Natural Monopolies*, *in* THE HANDBOOK OF INDUSTRIAL ORGANIZATION 1290 (Richard Schmalensee & Robert Willig eds., Elsevier 1989)).

7. One of the three sources that Professor Panzar cites includes a chapter on public enterprises. However, the chapter offers no conclusion with respect to the optimal price floor for such an enterprise—much less the optimal price floor for a public enterprise that operates in both reserved (monopoly) markets and competitive markets. *See* HARRINGTON, VERNON & VISCUSI, *supra* note 6, at 504–22.

particularly one that operates simultaneously as a statutory monopolist and in competition with private firms.

8. Contrary to Professor Panzar's analysis, the Postal Service has the incentive to sacrifice profit to expand its scale, in part due to statutory mandates and policy goals that diverge from profit maximization.[8] Moreover, managers of state-owned enterprises often have considerable interest in expanding the scale or scope of their activities, in part, because some might infer a manager's abilities from the size of the operations that he or she oversees.[9] The Postal Service's incentive compensation explicitly rewards managers with bonuses that are tied to measures of scale (not profit), including deliveries per hour and total revenue.[10]

9. The Postal Service's likely objective is to maximize some weighted average of profit and scale, rather than profit alone.[11] The impulse to increase scale at the expense of profit creates the incentive for the Postal Service to cut its prices for competitive products below the profit-maximizing level and perhaps even below cost. Such a pricing strategy could harm competition in the markets for competitive products by leading the Postal Service to underprice more efficient competitors, to the detriment of consumers.[12]

10. This conjecture derived from economic principles finds empirical support in the Postal Service's record of chronic losses. It is implausible that a profit-maximizing entity would operate at a loss for nine consecutive years, particularly without any major overhaul of its

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8. J. Gregory Sidak, *Maximizing the U.S. Postal Service's Profits from Competitive Products*, 11 J. COMPETITION L. & ECON. 617, 662 (2015); *see also* David E.M. Sappington & J. Gregory Sidak, *Competition Law for State-Owned Enterprises*, 71 ANTITRUST L.J. 479 (2003); David E.M. Sappington & J. Gregory Sidak, *Are Public Enterprises the Only Credible Predators?*, 67 U. CHI. L. REV. 271, 285–86 (2000).

9. Sappington & Sidak, *Competition Law for State-Owned Enterprises*, *supra* note 8, at 500.

10. *See* Jeffrey C. Williamson, U.S. Postal Serv., *Fiscal Year 2014 Pay for Performance Program* 4 (2013), http://www.nalc3825.com/PFP-Prog-FY-2014-31.pdf; U.S. Gov't Accountability Off., GAO-08-996, U.S. Postal Service New Delivery Performance Measures Could Enhance Managers' Pay for Performance Program (2008), http://www.gao.gov/assets/290/280446.pdf.

11. *See* Sappington & Sidak, *Competition Law for State-Owned Enterprises*, *supra* note 8, at 501–05.

12. *See* Sappington & Sidak, *Are Public Enterprises the Only Credible Predators?*, *supra* note 8, at 285–86.

operations.[13] In the case of the Postal Service, those losses likely derive in part from its incentive to maintain a large scale in response to political and institutional pressure.[14]

B. The Postal Service Has the Incentive and Ability to Harm Competitors

11. Professor Panzar also fails to recognize the Postal Service's ability to harm its competitors. The PRC is unique among American regulatory commissions in that it regulates only one firm. Perhaps that artifact explains why, in the 47 years since the Postal Reorganization Act of 1970 (updated and supplanted in 2006 by the PAEA), neither the PRC nor its predecessor has managed to persuade the Postal Service to produce even minimally transparent or comprehensible cost attribution. Its bespoke accounting methods, which both violate the PAEA and inexplicably depart from industry practice, provide it ample opportunity to price its competitive products below cost. Professor Panzar's assertion that the PRC's attributable-cost floor is sufficient to prevent below-cost pricing neglects to consider the discretion that the Postal Service enjoys in designing and implementing its costing procedures.

12. Likewise, Professor Panzar's argument that the Postal Service would lack the incentive to engage in predatory pricing (even if it had the ability, which he doubts) relies upon the erroneous assumption that the Postal Service maximizes profits. Professor Panzar argues that any attempt at predation would not be successful because the Postal Service could not "drive its rivals out of business by outlasting them in a price war" and would not be able to recoup its losses after its rivals' exit.[15] In other words, he argues that a strategy of predation would not be profitable for the Postal Service. However, the Postal Service need not—and does not—

13. U.S. Postal Serv., *United States Postal Service FY2016 Annual Report to Congress* 25 (2016), https://about.usps.com/who-we-are/financials/annual-reports/fy2016.pdf; U.S. Gov't Accountability Off., GAO-15-290, High-Risk Series: An Update 114 (2015), http://www.gao.gov/assets/670/668415.pdf.

14. *See, e.g.*, J. GREGORY SIDAK & DANIEL F. SPULBER, PROTECTING COMPETITION FROM THE POSTAL MONOPOLY 120 (AEI Press 1996).

15. Panzar Declaration, *supra* note 4, at 6.

maximize profits, or even break even. The Postal Service has the incentive to undercut its competitors and possibly charge below-cost prices to expand its scale, even if it never recoups its forgone profits.[16] (Recall again that the Postal Service runs chronic losses, which makes recoupment impossible.) Professor Panzar's argument therefore fails. As I explained in my initial declaration,[17] the complexity and opacity of postal costing provides ample opportunity for the Postal Service to understate its costs. Thus, it is entirely plausible that the Postal Service could price competitive products below cost.

13. Moreover, the PAEA's elimination of antitrust immunity for anticompetitive conduct concerning competitive products confirms that Congress in 2006 contemplated that the Postal Service would have the incentive and ability to harm competitors. Madison famously wrote, "If angels were to govern men, neither external nor internal controls on government would be necessary."[18] By the same reasoning, if the managers of the Postal Service were angels—if they lacked the incentive and the ability to harm its competitors—then there would have been no reason for the Congress to constrain their power by abolishing the Postal Service's antitrust immunity.[19]

C. Professor Panzar's Mistaken Assumption That the Postal Service Maximizes Profits Underlies His Erroneous Interpretation of the Appropriate Share as Transitional and Unnecessary

14. Professor Panzar's dismissal of concerns that the Postal Service will sacrifice profit at the expense of scale (and perhaps even price below cost) yields an incorrect

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16. In antitrust terms, predatory pricing requires a high probability of recoupment. Because the Postal Service is unlikely to raise prices to attempt to recoup any losses from a below-cost pricing strategy, it is more accurate to refer to its prices as potentially below-cost rather than predatory. The choice of terminology would not influence the determination of whether the Postal Service's pricing violated section 2 of the Sherman Act. *See* 15 U.S.C. § 2.

17. Sidak Initial Declaration, *supra* note 3, at 12–14.

18. THE FEDERALIST NO. 51, at 347, 349 (James Madison) (Jacob E. Cooke ed., 1961).

19. *See* J. Gregory Sidak, *Abolishing the Letter-Box Monopoly*, 1 CRITERION J. ON INNOVATION 401, 421–22 (2016).

understanding of the PAEA. Professor Panzar portrays the appropriate-share requirement as deviating from the "overall thrust of [the] PAEA" by "allowing the Commission to attempt to substitute its judgment for that of the marketplace."[20] He argues that the PAEA "transferred the responsibility" for determining competitive products' institutional cost coverage "to competition."[21]

15. Professor Panzar's argument not only contradicts the unambiguous language of section 3633(a)(3)—which specifically directs the Commission to determine an appropriate share of institutional costs for competitive products to cover—but also ignores the Postal Service's incentives to underprice competitive products. If the Postal Service were instead a profit-maximizing firm, and if the appropriate-share requirement were instead a maximum rather than a minimum contribution, then Professor Panzar's argument might be sound. In other words, market forces can plausibly replace a price cap. However, competition by definition cannot replace a price floor, because competition drives prices down. The appropriate-share requirement is a *minimum* contribution to overhead that competitive products must make. Professor Panzar's argument is therefore incorrect on its face.

16. Similarly, Amazon attempts to contrast the appropriate-share requirement with the approach of "most other federal regulatory commissions," which it says have eliminated "the traditional regulatory approach of prescribing minimum contributions . . . for products that face effective competition."[22] That comparison is misleading and unpersuasive, because it is a private firm's maximization of profit that permits its regulators to eschew price floors. In addition, the

20. Panzar Declaration, *supra* note 4, at 4–5 (emphasis omitted).
21. *Id.* at 4.
22. Comments of Amazon Fulfillment Services, Inc., Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1, at 13 (filed Jan. 23, 2017) [hereinafter Amazon Comments].

Postal Service differs from other regulated entities in that it attributes less than 60 percent of its costs.[23] I do not know of any other regulated entity that treats such a high percentage of its costs as overhead or common costs.

17. Moreover, nothing in the PAEA supports Professor Panzar's assertion that Congress intended section 3633(a)(3) to be transitional. Congress directed the PRC to review the appropriate-share regulation "[f]ive years after the date of enactment of [the PAEA], *and every 5 years thereafter*" to determine whether the provision "should be retained in its current form, modified, or eliminated."[24] The designation of "every 5 years thereafter" implies that the appropriate share would continue indefinitely. There is no mention of an inevitable elimination. It is therefore erroneous and misleading for Professor Panzar to read section 3633(b) to present one of the three options available to the PRC—that is, to retain, modify, or eliminate the appropriate share—as Congress's intended outcome.

18. In addition, Professor Panzar presumes without any legal basis that the Commission's decision that section 3633(a)(3) should be eliminated would somehow be self-executing. But no agency can repeal a statute. Professor Panzar does not merely argue that the PRC should set the appropriate share to zero for the next five years, in accordance with its regulatory powers under the PAEA. He instead makes a legal argument that the appropriate-share requirement should be eliminated (by implication, permanently) because it is "contrary to

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23. In 2016, the Postal Service reported attributable costs of $40,871,064,000 and total costs of $77,121,089,000. U.S. POSTAL SERVICE, FY16 PUBLIC COST SEGS AND COMPS, at tab 1 (2017). The Postal Service thus attributed approximately 53 percent (that is, $40,871,064,000 ÷ $77,121,089,000) of its costs in 2016. I understand, however, that it is standard practice to subtract certain cost segments unrelated to the Postal Service's operations when computing its total costs for a given year. Subtracting those costs from the total yields a slightly higher cost attribution of 58 percent. *See* Initial Comments of United Parcel Service, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1, at 30 (filed Jan. 23, 2017).

24. 39 U.S.C. 3633(b) (emphasis added).

the light-handed regulatory approach of the [PAEA]" and it "harkens back to the era when the Commission was responsible for approving contribution levels."[25]

19. Similarly, Amazon believes that "the Commission should exercise *its authority* under 39 U.S.C. § 3633(b) to eliminate the minimum contribution requirement."[26] But Amazon never explains what the precise source and scope of that agency authority is. Instead, Amazon leaps to the implausible conclusion that Congress gave the Commission an authority tantamount to the power to repeal a key section of the PAEA by completely zeroing out the appropriate-share that the Postal Service's competitive products must contribute to the recovery of its institutional costs. But such a grant of authority would be constitutionally suspect as both an unlawful delegation and an evasion of both bicameralism and presentment. Neither Professor Panzar nor Amazon addresses the possibility that the Commission's de facto repeal of section 3633(a)(3) that they suggest would exceed its statutory mandate.

20. Section 3633(b) speaks only of what the Commission concludes "should" be done to the appropriate share. One cannot bootstrap the normative "should" into the positive "will be." If, pursuant to section 3633(b), the Commission were to "conduct a review" in which it "determine[d]" that section 3633(a)(3) "should [not] be retained in its current form" or "modified," but rather should be "eliminated,"[27] the next step would be for the Commission to convey that normative recommendation to Congress so that *it* could repeal section 3633(a)(3), if it agreed with the Commission's reasoning, and so that the President could veto Congress' repeal of section 3633(a)(3) if he disagreed. Otherwise, the Commission would be asserting an

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25. Panzar Declaration, *supra* note 4, at 2.
26. Amazon Comments, *supra* note 22, at 1 (emphasis added).
27. 39 U.S.C. § 3633(b).

administrative veto (far more problematic than the legislative veto in *Chadha*[28]) over an act of Congress.

21. The appropriate-share requirement is neither superfluous nor transitional. On the contrary, as I explained in my initial comments, it provides a crucial check on the Postal Service's incentive and ability to harm its competitors, market-dominant consumers, and its bottom line by underpricing its competitive products.[29]

II. PROFESSOR PANZAR CONFLATES THE WELFARE OF CONSUMERS OF MARKET-DOMINANT PRODUCTS AND THE WELFARE OF CONSUMERS OF COMPETITIVE PRODUCTS

22. Section 101(e) of Title 39 of the U.S. Code provides: "In determining *all policies* for postal services, the Postal Service shall give *the highest consideration* to the requirement for the most expeditious collection, transportation, and delivery of *important letter mail*."[30] In the jargon of economists, section 101(e) helps to define the objective function of the Postal Service. That statutory directive is not limited to high-level policy questions. For example, the PAEA requires the Postal Service to "provide for the transportation of mail in accordance with the policies established under section 101(e)."[31] The PAEA thus explicitly directs the Postal Service to prioritize letter mail over *all* other products.

23. Yet Professor Panzar implicitly justifies his policy prescriptions on the basis of a completely different, ad hoc objective function of his own creation. Professor Panzar would have the Postal Service, "[i]n determining all policies for postal services, . . . give the highest consideration to the requirement for the most expeditious collection, transportation, and delivery

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28. Immigration & Naturalization Serv. v. Chadha, 462 U.S. 919 (1983).
29. *See* Sidak Initial Declaration, *supra* note 3, at 10–16.
30. 39 U.S.C. § 101(e) (emphasis added).
31. *Id.* § 5001.

of" *parcels*, which of course could just as easily be delivered by private carriers in a competitive market.[32] Professor Panzar would maximize the welfare of consumers of competitive products. He argues that increasing the appropriate share would be harmful because it would "increase the prices paid by mailers of competitive products."[33] Professor Panzar briefly posits an alternative scenario in which an increase in the appropriate share could harm market-dominant consumers by reducing competitive products' net contribution to institutional cost cover.[34] However, that scenario (which could occur only if the Postal Service's current prices for competitive products were to meet or exceed the profit-maximizing level) is neither plausible nor central to Professor Panzar's argument.[35]

24. In particular, Professor Panzar's analysis is agnostic regarding how the Postal Service's advantages that derive from its special legal status should be distributed between consumers of market-dominant products and consumers of competitive products. He says that adjustments to the appropriate share "can only determine whether [the Postal Service's unique benefits] are shared between the Postal Service and the customers of its competitive products—or are transferred to its competitors."[36] Conspicuously absent from Professor Panzar's analysis of the Postal Service's advantages is concern for the welfare of consumers of market-dominant products.

25. It bears repeating here that the PRC's conclusion in 2012 that the Postal Service operates at a net disadvantage in the markets for competitive products[37] was unfounded. To reach

32. 39 U.S.C. § 101(e).

33. Panzar Declaration, *supra* note 4, at 11.

34. *Id.* at 11–12.

35. *See* Sidak, *Maximizing the U.S. Postal Service's Profits from Competitive Products*, *supra* note 8, at 662 (explaining that the Postal Service's prices for competitive products are unlikely to be profit-maximizing).

36. Panzar Declaration, *supra* note 4, at 8.

37. Order Reviewing Competitive Products' Appropriate Share Contribution to Institutional Costs, Postal Regulatory Commission, Dkt. No. RM2012-3, at 14–15 (filed Aug. 23, 2012).

that conclusion, the PRC relied (and apparently continues to rely) upon an incorrect interpretation of the FTC's 2007 report on the Postal Service's unique legal status. As I explained in my initial report,[38] the FTC provided its conclusion that the Postal Service operated under a small net disadvantage with the caveat that key Postal Service benefits and burdens—including the postal and mailbox monopolies—were excluded from its analysis.[39] Yet, the PRC submitted written testimony to the House Committee on Oversight and Governmental Reform on February 7, 2017 stating that

> [t]he [2007 FTC] report identified and quantified the economic burdens and advantages that exist by virtue of the Postal Service's status as a federal government entity *and its postal and mailbox monopolies*. The FTC determined, based on 2006 financial results, that the Postal Service's unique legal status ultimately put the Postal Service at an overall disadvantage in the Competitive product market.[40]

The PRC's written testimony incorrectly states that the FTC's net-disadvantage determination accounts for the postal and mailbox monopolies. Given that a decade has passed since the FTC issued its report, and given that there has been an inevitable turnover of senior staff at the PRC since 2007, it is understandable that this question might engender confusion within the agency's institutional memory. Indeed, the passage quoted above from the PRC's prepared testimony might have been simply inadvertent in light of the fact that the PRC chairman's oral testimony before the Committee notably did not repeat this factual representation. As I explained in my initial report, the economic advantages arising from the postal and mailbox monopolies are

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38. *See* Sidak Initial Declaration, *supra* note 3, at 5–9.

39. FEDERAL TRADE COMMISSION, ACCOUNTING FOR LAWS THAT APPLY DIFFERENTLY TO THE UNITED STATES POSTAL SERVICE AND ITS PRIVATE COMPETITORS 64 (2007) [hereinafter FTC, ACCOUNTING FOR LAWS].

40. *Accomplishing Postal Reform in the 115th Congress: Hearing on H.R. 756, the Postal Service Reform Act of 2017 Before the House Oversight and Government Reform*, 115th Cong. 23 (2017) (Statement of Robert G. Taub, Chairman, on Behalf of the PRC) (emphasis added).

potentially large enough to yield a net *advantage* for the Postal Service if they had been included in the FTC's analysis ten years ago.[41]

26. It is simple arithmetic that every dollar of institutional cost not covered by competitive products must either be recovered by market-dominant products or contribute to the Postal Service's mounting debt. In the short term, the Postal Service's failure to recover common costs using revenues from competitive products puts extreme upward pressure on quality-adjusted prices for market-dominant products.

27. Although regulation ties prices for market-dominant products to inflation,[42] the Postal Service is currently attempting to convince the PRC and Congress to remove those rate caps.[43] In a statement before the House Oversight and Government Reform Committee, Postmaster General Megan Brennan said that the Postal Service's ability "to be financially stable and have adequate resources to ensure the continuation of high-quality service . . . is hamstrung by the inflexible price cap imposed by the PAEA over products that produce 74 percent of our revenue."[44] Postmaster Brennan said that the Postal Service would "urge the PRC to replace the current [rate-cap] system" but that "Congressional action on legislative reform would minimize the size of the price increases needed to cover our costs."[45] In other words, the Postal Service seeks to solve its financial problems by raising the prices that captive market-dominant consumers pay. Moreover, even assuming that the rate caps remain in place, the Postal Service can raise—and arguably has raised—the quality-adjusted price of market-dominant products by

41. *See* Sidak Initial Declaration, *supra* note 3, at 6–7.
42. 36 U.S.C. § 3622(d)(1).
43. *Accomplishing Postal Reform in the 115th Congress: Hearing on H.R. 756, the Postal Service Reform Act of 2017 Before the House Oversight and Government Reform*, 115th Cong. 11–12 (2017) (Statement of Postmaster General and Chief Executive Officer Megan J. Brennan).
44. *Id.* at 12.
45. *Id.*

making service cuts.[46] Thus, the Postal Service has a ready mechanism for shifting its cost burdens to market-dominant consumers.

28. The advantages to which Professor Panzar refers should accrue to the captive consumers of market-dominant products—not consumers of competitive products. Raising the appropriate share accomplishes that transfer, to the extent possible, by requiring competitive products to contribute more revenue to the recovery of overhead costs.[47]

29. In addition, in the long term, the Postal Service's attempts to recover institutional costs with little contribution from competitive products are doomed to fail. Substitution to electronic communication will continue to erode the Postal Service's potential profits from market-dominant products. Even as the profit-maximizing price for market-dominant products increases, the total profit from market-dominant products will decline. To avoid financial collapse, the Postal Service will eventually—and sooner rather than later—need to recover a substantial portion of its institutional costs from competitive products. Thus, both consumer-welfare and financial-stability considerations counsel the PRC to adopt a higher appropriate share.

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46. For example, the percentage of on-time deliveries for three-to-five-day single-piece first-class mail declined from a high of 92 percent in 2012 to 82 percent in the first quarter of 2017. UNITED STATES POSTAL SERVICE, QUARTERLY PERFORMANCE FOR SINGLE-PIECE FIRST-CLASS MAIL, QUARTER IV, FY 2016, at 3 (2016); UNITED STATES POSTAL SERVICE, SERVICE PERFORMANCE QUARTERLY UPDATE USPS Q1 FY2017, at 4 (2017); *see also* Press Release, U.S. Postal Service, Our Future Network: Key Facts on Network Rationalization (Mar. 23, 2015), https://about.usps.com/news/electronic-press-kits/our-future-network/ofn-usps-key-fact-on-network-rationalization.htm (describing plans for increasing delivery times for First-Class Mail).

47. It bears emphasis that, although the Postal Service can use revenue from competitive products to recover institutional costs above and beyond the appropriate share, its incentives are unlikely to favor a consistently high level of cost recovery. Leaving contributions to institutional cost to the Postal Service's sole discretion, as Professor Panzar and Amazon recommend, would invite the Postal Service to recover institutional costs using revenues from captive consumers of market-dominant products. Moreover, to the extent that the Postal Service has relaxed the accounting separation between the Competitive Products Fund and the Postal Service Fund, the Postal Service has even greater discretion to determine how it will cover institutional costs. The PAEA anticipated that the Postal Service would deposit revenues from competitive products directly into the Competitive Products Fund. 39 U.S.C. 2011(a)–(b). However, the PRC apparently permits the Postal Service to deposit all product revenues into the Postal Service Fund and transfer revenues from competitive products to the Competitive Products Fund only at the end of each year. *See* Final Order on Competitive Products Fund Inquiry, Order No. 2329, Postal Regulatory Commission, Dkt. No. Pl2013-1, at 3 (filed Jan. 23, 2015).

III. PROFESSOR PANZAR ERRONEOUSLY ASSUMES THAT THE COMMISSION HAS AUTHORITY TO REGULATE PRIVATE CARRIERS IN THEIR PROVISION OF COMPETITIVE PRODUCTS

30. Professor Panzar argues that the PRC must give the Postal Service additional downward pricing flexibility to prevent UPS and FedEx from engaging in anticompetitive behavior in the market for parcel delivery. He argues that "[i]ncreasing the minimum contribution requirement enough to affect actual prices for competitive postal products would . . . remov[e] perhaps the most effective safeguard today against further price increases by the major private carriers."[48] Professor Panzar supports his conjecture about the Postal Service's role in providing price discipline by asserting that "[t]here is evidence that UPS and FedEx, if freed from the competitive discipline provided by the Postal Service, would possess significant pricing power. These carriers have been raising their own rates at a much faster pace than inflation, and often in lockstep."[49]

31. Even if Professor Panzar's assertions were correct, they would be irrelevant to the PRC's interpretation of the PAEA's appropriate-share requirement. Any potential anticompetitive behavior on the part of UPS and FedEx is outside the PRC's jurisdiction. The antitrust laws police competitive conduct in the markets for postal products that are not deemed market-dominant. The antitrust police are the Antitrust Division of the U.S. Department of Justice and the Federal Trade Commission (FTC). The PRC is not part of the antitrust police force, and it has no authority to enforce the Sherman Act or other antitrust statutes. It is erroneous as a matter of law for Professor Panzar to predicate his economic analysis on the belief that the PRC is needed to police the behavior of private carriers in their provision of competitive postal products such as the delivery of parcels. The Antitrust Division and the FTC are

48. *See* Panzar Declaration, *supra* note 4, at 12.
49. *Id.* at 12 n.12.

competent to perform that task. Because of the Postal Service's incentive and ability to harm competition, the PRC is uniquely empowered to prevent solely the Postal Service from engaging in anticompetitive behavior in the provision of parcel delivery and other competitive products.

IV. If the Commission Were Able to Enforce Antitrust Law, It Would Need to Do So in Federal Court, Pursuant to the Federal Rules of Evidence, Under Which Professor Panzar's Report Would Be Deemed Inadmissible

32. Professor Panzar's legally erroneous argument that the PRC must act to prevent potential anticompetitive behavior by the Postal Service's competitors invites the question of how his testimony would fare if presented in a proper forum for an antitrust challenge: a federal district court. Analyzing Professor Panzar's declaration under the standards that district courts apply to expert economic testimony reveals that it would be inadmissible. The PRC should maintain no lower a standard for declarations by economic experts. It should disregard Professor Panzar's unreliable economic testimony.

A. Expert Economic Testimony Must Be Reliable to Be Helpful

33. The greatness of American antitrust law derives from its having been forged since 1890 by federal judges who possessed not only practical experience across many fields of law, but also the courage and intellect to express their reasoned decisions forthrightly. To be sure, the courts made mistakes along the way. But in less than a century the evolutionary process of adjudication had distilled an admirable set of general principles from individual cases actually litigated on a factual record and scrutinized under the Federal Rules of Evidence—including government cases in which the Antitrust Division or the FTC bore the burden of proof.[50]

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50. *See* J. Gregory Sidak, *The Tempting of American Antitrust Law: An Open Letter to President Trump*, 2 CRITERION J. ON INNOVATION 201, 201–02 (2017).

34. Were the Commission to challenge UPS's and FedEx's conduct under the antitrust laws, Professor Panzar's declaration in support of that challenge would be subject to the Supreme Court's *Daubert* standard for expert testimony in federal district court. The Court established the modern American jurisprudence on the admissibility of expert testimony in *Daubert*,[51] *Joiner*,[52] and *Kumho*.[53] In general, all "relevant" evidence is admissible,[54] which is evidence that "has any tendency to make a fact more or less probable than it would be without the evidence" and "is of consequence in determining the action."[55] Federal Rule of Evidence 702 further provides specific requirements for the admissibility of expert testimony: (1) "the testimony is based upon sufficient facts or data," (2) "the testimony is the product of reliable principles and methods," and (3) "the expert has reliably applied the principles and methods to the facts of the case."[56]

35. Although a declaration submitted to a regulatory agency is not subject to the Federal Rules of Evidence or the federal courts' jurisprudence on the admissibility of expert testimony, those sources suggest a useful framework for determining the weight that the PRC should give Professor Panzar's arguments. Expert economic testimony must be reliable to be helpful, regardless of the forum in which it is submitted. As I explain in Part IV.B, at least the final one-third of Professor Panzar's testimony (in which he presents a numerical example) would be inadmissible under *Daubert*.

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51. Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993).
52. General Elec. Co. v. Joiner, 522 U.S. 136 (1997).
53. Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999).
54. FED. R. EVID. 402.
55. *Id.* 401.
56. *Id.* 702.

B. Professor Panzar Devotes More Than One-Third of His Declaration to a Hypothetical Numerical Example That Any Federal District Court Would Find Inadmissible

36. One-third of Professor Panzar's declaration consists of a simple numerical example that he uses to argue that the PRC should set the appropriate-share requirement to zero. Professor Panzar shows that, under the assumptions of his model, setting the price floor for each competitive product at its incremental cost (with no minimum contribution to overhead) (1) ensures that market-dominant products do not cross subsidize competitive products, (2) maximizes the share of common costs that competitive products cover, and (3) ensures efficient provision of competitive products.[57] However, his simplified model is divorced from the facts and data of this proceeding, and it relies upon unrealistic assumptions about the Postal Service's cost structure and the markets for competitive products. Professor Panzar's stylized and unrealistic numerical example would be inadmissible as expert testimony in a federal court under *Daubert*. The PRC should likewise disregard the numerical example's results when determining an appropriate share of institutional costs for competitive products to cover.

1. Professor Panzar's Hypothetical Example Is Divorced from the Facts and Data of This Proceeding

37. For ease of exposition, I will reproduce Professor Panzar's example here. Professor Panzar begins with the following assumptions:

i. There are two products: a "monopoly" service with volume given by Q_1; and a "competitive" service with volume given by Q_2.

ii. Total cost is given by the formula $C(Q_1, Q_2) = 720\sqrt{Q_1 + Q_2}$. (This cost function exhibits declining marginal costs, since $MC_1 = MC_2 = \frac{360}{\sqrt{Q_1+Q_2}}$ are decreasing functions of both output levels.)

57. Panzar Declaration, *supra* note 4, at 20–23.

iii. Service-level incremental and attributable costs: The incremental costs of a service are the costs that would be avoided if that service's volumes were removed. In the present example these are given by:

$$IC_1 = C(Q_1, Q_2) - C(0, Q_2) = 720\sqrt{Q_1 + Q_2} - 720\sqrt{Q_2}.$$
$$IC_2 = C(Q_1, Q_2) - C(Q_1, 0) = 720\sqrt{Q_1 + Q_2} - 720\sqrt{Q_1}.$$

iv. Institutional costs are the difference between total cost and the sum of the incremental/attributable costs of all the services. In this example, these are given by:

$$Inst = C(Q_1, Q_2) - IC_1 - IC_2 = 720\left[\sqrt{Q_1} + \sqrt{Q_2} - \sqrt{Q_1 + Q_2}\,\right].$$

38. Professor Panzar then sets demand for monopoly products and demand for competitive products at Q_1 = 16 units and Q_2 = 9 units, respectively.[58] He assumes that (1) in the competitive market, consumers view the Postal Service's products and its rivals' products as perfect substitutes and (2) rivals offer their products at constant average and marginal costs of f per unit.[59]

39. Under those assumptions, Professor Panzar shows that a price floor based on incremental cost would prevent any cross subsidization of competitive products by market-dominant products, maximize the share of common costs that competitive products cover, and ensure that competitive products are efficiently produced.[60] However, several of his simplifying assumptions are completely divorced from the facts and data of this proceeding.

40. First, Professor Panzar incorrectly assumes that the Postal Service's competitors have constant average and marginal costs.[61] In other words, his model assumes that only the Postal Service—and not its competitors—benefits from economies of scale and scope. Under that assumption, for example, UPS's cost of delivering its first parcel (including the construction of its network, hiring of personnel, and so on) equals the cost of delivering its one-billionth

58. *Id.* at 16.
59. *Id.* at 18.
60. *Id.* at 20–23.
61. *Id.* at 18.

parcel using its existing network. It is a substantial departure from the facts of this proceeding to assume that the Postal Service has costs that exhibit economies of scale and scope, but that its competitors, which offer relatively similar competitive products (like parcel delivery), have costs that lack economies of scale and scope.

41. Second, Professor Panzar incorrectly assumes that all competitive products are perfectly substitutable, with all sales going to the lowest-price firm in the market.[62] Consumers are unlikely to view the products that the Postal Service, UPS, FedEx, and other competitors provide as perfect substitutes. Even if all delivery firms were to offer identical delivery services at exactly the same price (which they do not), consumers would view those products as imperfect substitutes on the basis of other differences, such as the convenience of travelling to each firm's nearest retail location.

42. Third, Professor Panzar assumes perfectly inelastic demand for both market-dominant and competitive products.[63] In other words, he assumes that total market demand remains constant regardless of changes in price. However, it is virtually indisputable that demand for the Postal Service's actual products is not perfectly inelastic. To argue otherwise would be to posit that, regardless of the prevailing market price for a given delivery service—from one cent to one million dollars—consumers will demand the same quantity of that product. That scenario is particularly implausible given the abundance of electronic substitutes for postal products.

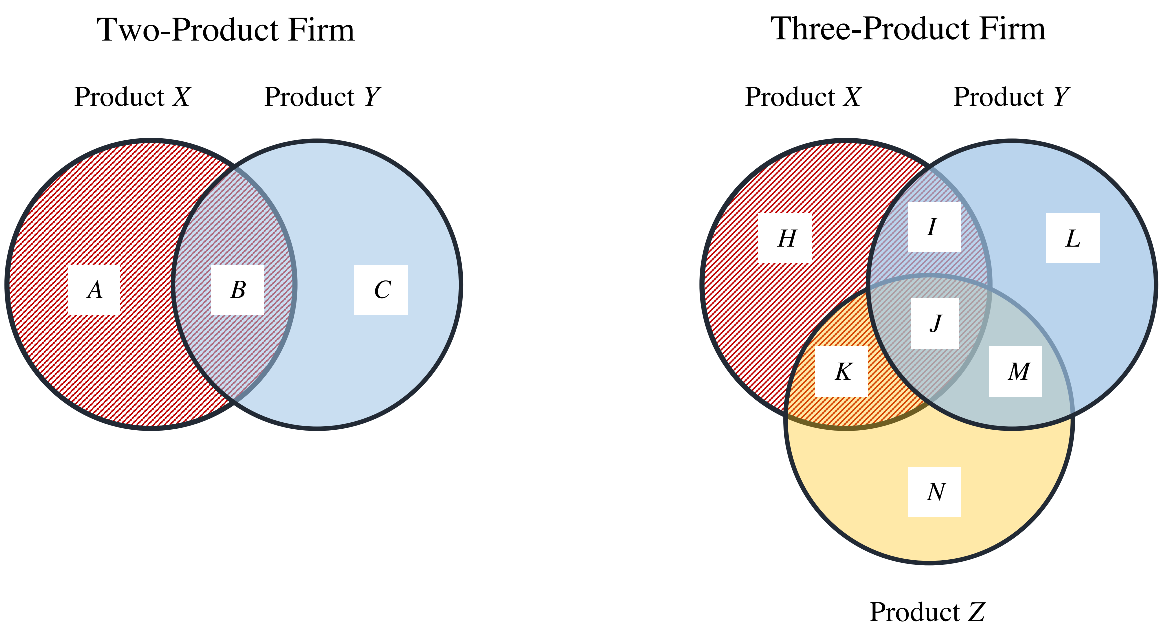
43. Fourth, Professor Panzar incorrectly assumes that the Postal Service is pricing competitive products such that it maximizes its profits from those products. As I explained in Part I, however, the Postal Service has the incentive to price its competitive products below the profit-maximizing level and perhaps even below cost. Indeed, if the Postal Service were

62. *Id.*
63. *Id.* at 16.

maximizing the profits that it earns on competitive products, there would be no need for a regulator to impose an incremental-cost test, an attributable-cost test, or an appropriate-share requirement.

44. Fifth, by presenting a model with only two products, Professor Panzar erases one of the key features of a multiproduct firm: that a subset of a firm's products can jointly cause costs. To understand those missing costs, consider Figure 1, which compares incremental costs in a two-product firm (like the firm that Professor Panzar models) with incremental costs in a three-product firm.

Figure 1: Incremental Costs in a Firm with Two Products
and a Firm with Three Products



In the two-product firm, only three categories of costs exist: costs incremental to the production of Product *X* (area *A*), costs incremental to the production of Product *Y* (area *C*), and overhead cost *B*. However, adding an additional product reveals a new category of costs that exist in virtually every multiproduct firm: joint costs. For example, in the three-product firm, area *K* represents the cost that Product *X* and Product *Z* cause jointly, to the exclusion of Product *Y*. The true overhead cost is area *J*, which all three products cause.

45. Because it incorporates those five unrealistic assumptions, Professor Panzar's model is divorced from the facts of this proceeding. The results of his simplified numerical example bear little, if any, relationship to the reality of the Postal Service's competitive-products business. As I show below in Part IV.B.2, the core results of Professor Panzar's model do not hold when one relaxes its underlying assumptions. Professor Panzar's numerical example is thus unreliable as a basis for determining the appropriate share of institutional costs.

2. Professor Panzar's Hypothetical Example Is Not Robust When Its Assumptions Are Challenged

46. Professor Panzar's numerical example is intended to demonstrate that pricing the Postal Service's competitive products using an incremental-cost-based price floor with no common cost contribution requirement for competitive products (1) prevents cross subsidy, (2) maximizes competitive products' coverage of institutional costs, and (3) ensures efficient provision of competitive products. In this part, I explain that the absence of cross subsidy within Professor Panzar's model is tautological and uninformative. I show that the maximization of institutional cost coverage at an appropriate share of zero is a quirk of Professor Panzar's highly abstract model. I explain how Professor Panzar's narrow focus on static efficiency and his unrealistic assumptions about demand substitution preordain his result that an appropriate share of zero ensures efficient provision of competitive products. Professor Panzar's results are not robust when one relaxes his unrealistic assumptions—particularly the assumption that the Postal Service maximizes profits. Professor Panzar's abstract numerical example provides no useful information about the real-world effects of changing the appropriate share on the Postal Service's bottom line or on competition in the markets for competitive products.

i. That a Properly Applied Incremental-Cost Test Prevents Cross Subsidy Is Tautological and Uninformative for Purposes of Determining the Appropriate Share

47. Professor Panzar's initial focus on the prevention of cross subsidy in his numerical example places undue emphasis on the following tautological result: that a perfectly executed incremental-cost test is sufficient on its own to prevent cross subsidy. Gerald Faulhaber designed the incremental-cost test to prevent cross subsidy.[64] Thus, by definition, no additional revenue from competitive products would be necessary to prevent cross subsidy. But, of course, that is not the purpose of the appropriate-share requirement. Two separate provisions of the PAEA, sections 3633(a)(1) and (2), already require the PRC to issue regulations preventing cross subsidy. The appropriate share requires competitive products to contribute revenue *above and beyond* their incremental cost. In other words, the appropriate share requires competitive products to contribute to the recovery of overhead costs.

48. Professor Panzar's focus on cross subsidy is a symptom of his belief that the appropriate-share requirement is superfluous. By setting a standard that the other subsections of 3633(a) already meet, he preordains the result that an appropriate share is not needed. In focusing on the prevention of cross subsidy, Professor Panzar neglects to tailor his analysis to the unique attributes of the Postal Service and the purpose of this proceeding. The Postal Service is *not* a profit-maximizing regulated monopolist. It is a state-owned enterprise that has expanded its business from its statutory monopoly into markets already served by private firms. The question at issue in this docket is how much profit that incursion into nonreserved markets must generate toward the recovery of the Postal Service's overhead costs. Amazon and Professor Panzar assert

64. Gerald R. Faulhaber, *Cross-Subsidization: Pricing in Public Enterprises*, 65 AM. ECON. REV. 966 (1975).

that the Postal Service's competitive products need not contribute a single cent to the Postal Service's institutional cost recovery.

49. Moreover, Professor Panzar's characterization of the appropriate-share requirement as an additional price floor—that is, as a requirement that unequivocally raises prices—is incorrect.[65] The appropriate-share requirement does not impose a price floor on any individual competitive product or on the group of competitive products. Instead, it imposes a floor on the collective incremental profit that *all* competitive products earn. Contrary to Professor Panzar's characterization, such a constraint will not always require a price increase. In some cases (for example, if the UPS and FedEx were to decrease their prices for parcel delivery), the Postal Service's profit-maximizing price would fall. If the appropriate-share constraint were binding in such a scenario, it would require the Postal Service to *decrease* prices for its competitive products to increase their coverage of common costs. Indeed, if one were to assume (as Professor Panzar does) that the Postal Service is currently maximizing its profits, there is no reason to believe that a positive appropriate-share requirement is any more likely to require a price increase than a price decrease.

50. Finally, as I explained in my initial comments, the Postal Service's wide-ranging control over its own cost reporting creates ample opportunity to depress the regulatory price floor that is intended to preclude cross subsidy.[66] In addition, to the extent that the PRC's test for cross subsidy fails to incorporate the opportunity cost of producing competitive products, the price floor that the PRC imposes will be too low to prevent cross subsidy. Thus, it is by no means certain that the Postal Service's competitive products actually cover their collective incremental cost in economic terms.

65. *See* Panzar Declaration, *supra* note 4, at 14–15.
66. Sidak Initial Declaration, *supra* note 3, at 12–14.

ii. An Appropriate Share of Zero Would Not Maximize Competitive Products' Institutional Cost Coverage

51. In Professor Panzar's stylized example, it is impossible for a nonzero appropriate-share requirement to increase competitive products' coverage of institutional costs. However, that result is an artifact of the unrealistic simplifications that underlie Professor Panzar's model, including the assumption that the Postal Service maximizes profits.

52. Taken together, Professor Panzar's assumptions that (1) the Postal Service's competitive products are perfect substitutes for its rivals' products and (2) total market demand is constant construct an unrealistic winner-take-all market in his model. In other words, in Professor Panzar's model, the firm with the lowest price captures all the (fixed quantity of) demand for the model's single competitive product.

53. That simplification erases the real-world possibility that the Postal Service could be leaving profit from competitive products—and thus contribution to overhead—on the table. In that winner-take-all market, a firm cannot pursue scale at the expense of profit. Either objective (profit maximization or scale maximization) directs the firm to attempt to win the market. Thus, it is easy for Professor Panzar's implicit assumption that the Postal Service maximizes profits to pass unnoticed. He assumes that, given a range of possible prices at which the Postal Service can capture the entire market, the Postal Service will always charge the highest price possible—in other words, that it maximizes profits.[67] Yet, that implicit assumption renders the entire exercise moot. If the Postal Service were to maximize its profits from competitive products, it would already maximize those products' contribution to overhead. Put differently, profit from competitive products *is synonymous with* their contribution to overhead.

67. Panzar Declaration, *supra* note 4, at 13.

54. Professor Panzar's assumption of profit maximization under an unrealistic model preordains the result that a nonzero appropriate share has (at best) no effect on competitive products' contribution to institutional costs. Yet, as I explained in Part IV.B.1, neither the profit-maximization assumption nor the model's assumptions about market conditions are realistic. The Postal Service's products are unlikely to be perfect substitutes for its competitors' products, and market demand is not perfectly inelastic. Indeed, one can easily observe that the markets for competitive products are not winner-take-all. If one considers the Postal Service's actual participation in markets for competitive products instead of an excessively stylized model, the need for an appropriate-share requirement becomes clear. Unlike in Professor Panzar's model, the Postal Service has both the opportunity and the incentive to expand its scale at the expense of profit in the markets for competitive products. Contrary to Professor Panzar's characterization, it is highly unlikely that the Postal Service would spontaneously maximize its competitive products' contribution to overhead, were the PRC to refrain from imposing any minimum contribution. An appropriate-share requirement of zero would allow the Postal Service to dedicate significant resources and managerial attention to competitive products without earning any incremental profit from those products.

iii. An Appropriate Share of Zero Does Not Ensure Efficient Provision of Competitive Products

55. The last key result of Professor Panzar's numerical example is that setting an appropriate share of zero ensures the efficient provision of competitive products. In other words, an appropriate share of zero allocates the production of competitive products among different providers and consumers such that total economic surplus is maximized.[68] However, as I explain

68. Economic efficiency would typically also require that an optimal output level is produced, but Professor Panzar assumes that output is constant in his model.

below, Professor Panzar's efficiency result depends upon his unrealistic assumption of perfect substitutability and his emphasis on static, short-run substitutability.

56. Professor Panzar proposes that setting the appropriate-share requirement at zero will ensure the efficient allocation of competitive products.[69] He argues that price competition between the Postal Service and its rivals will drive prices down toward incremental cost and thus maximize consumer welfare.[70] However, although lower prices typically maximize short-run static consumer welfare, pricing at incremental cost does not necessarily increase long-run consumer welfare. If prices are not sufficient to ensure long-run investment and innovation, consumers will be harmed relative to a market in which innovation drives the development of new products.

57. Moreover, in a market in which firms exhibit economies of scale and scope, pricing all products at incremental cost is a recipe for insolvency. Such firms have common costs that are not recoverable under incremental-cost-based prices. In the short run, firms will not invest in research and development of new products or cost-saving innovations if there is no chance to recover that sunk investment through higher future prices. Professor Panzar's preferred scheme of pricing at incremental cost would generally discourage investment and potentially lead to exit from the industry. Long-run competition would suffer as the industry approaches monopoly, and innovation would slow due to reduced investment. Total welfare and efficiency would decrease due to the lack of technological innovation.

58. To imagine those effects in the context of postal markets, consider the following scenario. If the Postal Service uses its statutory advantages to monopolize competitive markets, innovation might slow to the pace at which it proceeds in the markets for market-dominant

69. Panzar Declaration, *supra* note 4, at 21–22.
70. *Id.* at 19–20.

products—in which, for example, the mailbox has barely changed over the past century.[71] Even a less dramatic outcome would decrease incentives for investment and innovation. For example, the Postal Service's propensity to set prices below the profit-maximizing level might discourage entry into delivery services (for example, through vertical integration). Thus, encouraging the Postal Service to drive its prices down to incremental cost is neither beneficial for the Postal Service's financial stability nor helpful to consumers.

59. In addition to causing potential long-run harm to the markets for competitive products, Professor Panzar's incremental-cost-based solution might not even support short-run efficiency if some of his unrealistic assumptions are relaxed. The market for competitive products is not necessarily perfectly contestable; at a minimum, the products in that market are not perfectly substitutable. Professor Panzar models the market for competitive products such that the lowest-priced operator, whether the Postal Service or its competitors, captures all of the sales in the market.[72] In other words, the model assumes that the Postal Service's competitive products and comparable products that rival firms produce are perfect substitutes. As I explained in Part IV.B.1, the products that firms such as the Postal Service, UPS, and FedEx sell in competition with one another are differentiated. Consumers have heterogeneous preferences over those products. That is, even if prices are identical across competitors, some consumers will prefer FedEx to the Postal Service, while others will prefer the Postal Service to FedEx. In such a market, even if one firm has the lowest cost of production at all output levels, total welfare is not necessarily maximized when that firm produces all units of the product. If even some consumers strongly prefer a higher-cost product, total welfare is likely maximized when some units of that higher-cost product are produced.

71. *See* Sidak, *Abolishing the Letter-Box Monopoly*, *supra* note 19, at 433.
72. Panzar Declaration, *supra* note 4, at 18–20.

60. Heterogeneous consumer preferences and differentiated products undermine the conclusion that it is efficient for the lowest-cost firm to produce all units of a given product. Consequently, Professor Panzar's simplified model, in which one firm can efficiently capture all of the competitive market, is too divorced from reality to be helpful, at least for an understanding of the efficient provision of competitive products. Once one relaxes the assumption of perfect substitutability or perfect contestability, the framework for Professor Panzar's analysis is no longer applicable. Put differently, it will not necessarily be the case that minimizing the total cost of producing the competitive output maximizes total welfare. In the real world, Professor Panzar's overly stylized example says little about the relative merit of any level for the appropriate-share requirement.

3. Professor Panzar's Unrealistic Assumptions Obfuscate Significant Potential Harms from Setting an Appropriate Share of Zero

61. In addition to producing inaccurate results, Professor Panzar's analysis of his numerical example neglects to consider several potential negative outcomes of setting an appropriate share of zero. The unrealistic assumptions that underlie Professor Panzar's argument obscure the potential for (1) the Postal Service to raise its rivals' costs and (2) cost-measurement errors to inflict harm on competition in the absence of an appropriate-share requirement.

i. Setting an Appropriate Share of Zero Could Enable the Postal Service to Raise Its Rivals' Costs by Depriving Them of Economies of Scale and Scope

62. Professor Panzar's model assumes that private delivery firms have constant average and marginal costs but that the Postal Service has declining average and marginal

costs.[73] As I explained in Part IV.B.1, such a scenario is unlikely. It is far more likely that the Postal Service's competitors, like the Postal Service itself, have decreasing marginal costs.

63. Professor Panzar's assumption of constant-cost competitors masks a serious shortcoming of his analysis. In the markets for competitive products, all multiproduct participants (not only the Postal Service) are typically characterized by economies of scale and scope. In other words, the participant's products all have costs common to sets of products and overhead costs common to all products. Setting an appropriate-share requirement of zero effectively enables the revenues from the sale of government-granted monopoly products to bear all of the common costs of one competitor in the market, the Postal Service. At a minimum, that subsidization of common costs gives the Postal Service a substantial competitive advantage. Whenever a competitive or contestable equilibrium is efficient, subsidization of common costs distorts that equilibrium and threatens economic efficiency.

64. Professor Panzar's analysis obscures that harm by assuming away competitors' common costs. Put differently, private delivery firms' average cost will equal marginal cost at every output level if and only if (1) their marginal costs are constant and (2) fixed costs are zero. Under those assumptions, private delivery firms' common costs, measured as total costs less incremental costs, are zero.

65. Moreover, Professor Panzar's assumption of constant costs for competitors hides an additional potential source of harm from an inefficiently low appropriate-share requirement. If competitors have constant average costs, there is no harm to society from artificially reducing the output of those competitors. However, if competitors' costs exhibit economies of scale and scope, which they surely do, artificially reducing the output level of the competitors will increase

73. *Id.* at 18.

their average costs. In other words, by increasing its output in the markets for competitive products by pricing below a profit-maximizing level, the Postal Service decreases the residual demand for its competitors' output below the efficient level of production. That decrease in output deprives competitors of economies of scale and scope, thus raising their average costs.

66. Because the Postal Service likely maximizes some weighted average of scale and profit, it has the incentive to raise its rivals' costs. As the competitors' average costs increase, those competitors' profit maximizing prices will also increase. All else equal, the Postal Service can either expand its output at the same price or raise its prices. In either circumstance, consumers will be worse off, because prices for some firms will increase. If one considers the potential for the Postal Service to manipulate its accounting data to understate its incremental costs, the potential harm to consumers increases. As I explained in Part IV.B.2, the Postal Service has considerable flexibility to determine which costs are categorized as attributable and which are designated institutional. Without any cushion in the form of a required contribution to overhead, the Postal Service could manipulate cost accounting data to set below-cost prices that expand its output and thereby raise its rivals' costs even further. Such actions fall precisely into the category of "unfair competition in the markets within which competitive products are offered" that Congress sought to prevent through its enactment of the appropriate-share requirement.[74]

67. Because the Postal Service also exhibits economies of scale and scope, some of the harm to competition from raising its rivals' costs is mitigated through reducing its own costs. In other words, the Postal Service's increased economies of scale and scope might lessen the net

74. *See* Initial Comments of the United States Postal Service at 2, In the Matter of Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (filed Jan. 23, 2017).

increase in the cost of producing competitive products across all firms. However, as quantity demanded for the Postal Service's parcel deliveries increases, those economies of scale and scope might abate.[75] For example, few would dispute that there exist economies of scale and scope for the letter carrier who also delivers a small number of parcels along her usual daily mail route. However, when parcel volume increases enough that a Postal Service vehicle must pass through the same neighborhood multiple times per day, and on Sundays, what becomes of the economies of scale and scope? Surely they are reduced. However, opaque postal accounting and secrecy about the terms of negotiated service agreements (NSAs) make it impossible to accurately estimate how those economies of scale and scope change with product volume. For example, the capacity of an individual mail truck will always represent a capacity constraint in the short run. As parcel volume increases, the Postal Service will reach its capacity constraint and will need to create newer, less efficient mail routes or require multiple deliveries over the same route. In other words, expansion of the Postal Service's competitive products business could actually increase its average and marginal costs. Those changes are costly to both customers of competitive services and customers of market-dominant services. By assuming constant average and marginal costs for the Postal Service's competitors, Professor Panzar hides a significant source of potential harm that could result from an appropriate-share requirement of zero.

68. The assumption of perfectly inelastic demand also masks the effects of assuming constant costs for the Postal Service's rivals. For example, if demand for competitive products is perfectly inelastic—that is, unresponsive to price changes—then increasing the costs of the

75. It must be the case that the Postal Service's returns to scale and scope eventually diminish. Otherwise, economic efficiency could occur only in the case where the Postal Service is the monopoly provider of every product.

Postal Service's rivals has less potential to harm economic welfare. That result obtains because any price increases that the cost increase creates will not create a corresponding decrease in demand. Typically, the harm to total welfare from a price increase is the lost potential surplus on the reduction in the quantity demanded because of the price increase. If the quantity demanded is constant, then a price increase (or raising rivals' costs) is less harmful to total welfare because no sales are lost. There are no marginal consumers. By assuming perfect substitution and perfectly inelastic demand, Professor Panzar obscures some of the potential issues that arise from his assumption of constant average and marginal costs.

ii. Professor Panzar's Assumption of Inelastic Demand for Competitive Products Obscures Potential Harms from Measurement Error

69. Professor Panzar unrealistically assumes that demand for market-dominant and competitive products is perfectly inelastic. Under Professor Panzar's model, the total demand for competitive products is constant across all prices. If instead the quantity demanded of the competitive product is allowed to vary with price, that quantity demanded will increase as price declines. With decreasing marginal costs, as price falls and quantity demanded increases, the price floor will also decrease.

70. When the quantity demanded can vary with price, lower prices would lead to greater quantities demanded. Greater quantities demanded would lead to lower price floors, which would lead to lower prices, and so on. If attributable costs, as measured in practice, fall short of true incremental costs (due to either theoretical errors or accounting errors), then that measurement error would increase as output increases. In other words, misallocation of costs to the common cost pool would increase as the quantity demanded of competitive products increases, at least within the assumptions of Professor Panzar's model. However, Professor Panzar's assumption of perfectly inelastic demand eliminates that feedback effect within his

stylized model. Professor Panzar's model fails to capture key potential effects of changes in the appropriate share and thus is not a reliable basis for concluding that the appropriate share should be zero.

V. AMAZON'S RELATIONSHIP WITH THE POSTAL SERVICE CREATES INCENTIVES FOR RENT-SEEKING BEHAVIOR AT THE EXPENSE OF CONSUMERS AND TAXPAYERS

71. Amazon and Professor Panzar claim that UPS's and FedEx's participation in the PRC's regulatory proceeding on the appropriate share is rent-seeking behavior. Conspicuously absent from both reports is an analysis of how Amazon and other large consumers of the Postal Service's competitive products would benefit from the current appropriate-share regime (and would benefit from its abolition). The continued evolution of Amazon's arrangement with the Postal Service invites the question: what is Amazon getting from its NSA that it cannot reproduce by vertically integrating into delivery?

72. For several years, the business press has reported on the symbiosis between Amazon and the Postal Service. For example, in 2015 *Bloomberg Businessweek* said that "[t]he U.S. Postal Service has become an extension of Amazon and is courting other e-commerce giants."[76] Consistent with that assessment, Amazon provides through its comments in this proceeding a compelling efficiency rationale for why it should vertically integrate downward by simply acquiring from the federal government the Postal Service's last-mile delivery network. Amazon contends that "[t]he Postal Service's economies of scale, economies of scope and economies of density are mainly in last-mile delivery, not upstream functions."[77] Amazon

76. Devin Leonard, *It's Amazon's World. The USPS Just Delivers in It*, BLOOMBERG BUSINESSWEEK (July 30, 2015), https://www.bloomberg.com/news/articles/2015-07-30/it-s-amazon-s-world-the-usps-just-delivers-in-it.
77. Amazon Comments, *supra* note 22, at 42.

believes that it has been able to increase the Postal Service's productive efficiency and dynamic efficiency in last-mile delivery:

> Amazon, working with the Postal Service, has created innovative technology and developed efficient processes (including improvements in labeling and the transmission of data to the Postal Service about the Amazon shipments before they arrive at Postal Service facilities) to reduce the Postal Service's costs of final delivery. This arrangement benefits the Postal Service by letting it make more efficient use of its delivery facilities, equipment and personnel while avoiding the costs of building additional capacity in the Postal Service's upstream network. The arrangement benefits both consumers and Amazon sellers by enabling two-day delivery at a reasonable cost.[78]

Amazon is too modest. It is really saying that it can manage the Postal Service's last-mile delivery network better than the management of the Postal Service can. Put another way, the assets of the Postal Service are more productive (and consequently more valuable, both privately and socially) when managerially controlled by Amazon. Innovation and adaptation are not the Postal Service's métier, whereas Amazon epitomizes the nimbleness of the Internet-based economy for having built a juggernaut having a market capitalization of $409 billion as of March 9, 2017.[79] Surely the lion's share of any innovation that has resulted from the close collaboration between Amazon and the Postal Service pursuant to their NSA has come from Amazon, not the Postal Service.[80]

73. In November 2014, the *Harvard Business Review* ranked Amazon's chief executive office, Jeffrey Bezos, the best-performing CEO in the world.[81] That Amazon has been

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78. *Id*. at 4.

79. *Amazon.com, Inc.*, GOOGLE FINANCE, https://www.google.com/finance?q=amazon&ei=LA-WWNj6E4W2e-Tnl-gD.

80. The Postmaster General's uninspiring innovation in last-mile delivery was to unveil, in 2015, a design for a more capacious customer letter box that otherwise looks virtually unchanged from the design that an earlier Postmaster General selected in 1915. *See* Sidak, *Abolishing the Letter-Box Monopoly*, *supra* note 19, at 433 (showing photographs of the 1915 letter box and the 2015 "Next Generation Mailbox"); *see also* BOSTON CONSULTING GROUP, THE MOST INNOVATIVE COMPANIES 2016: GETTING PAST "NOT INVENTED HERE" 4 (2017) (listing Amazon as the fifth most innovative company in 2016), https://media-publications.bcg.com/MIC/BCG-The-Most-Innovative-Companies-2016-Jan-2017.pdf.

81. Harvard Business Review Staff, *The Best-Performing CEOs in the World*, HARV. BUS. REV., Nov. 2014, https://hbr.org/2014/11/the-best-performing-ceos-in-the-world.

able to teach the management of the Postal Service so much that it did not already know about delivering parcels is powerful economic evidence that it would be efficient for Amazon simply to buy the Postal Service's last-mile delivery network from the federal government and manage it, subject to whatever residual regulation that Congress deemed necessary and proper.[82] Although political considerations would likely prevent such a sale, it provides a useful thought experiment for analyzing Amazon's incentives with respect to postal regulation. Amazon could operate the Postal Service's network on a nondiscriminatory open-access basis (as is routine in other network industries) and thereby pursue even greater efficiencies for consumers of market-dominant postal products as well as consumers of competitive postal products such as parcel delivery. The business press has previously reported Amazon to be considering unorthodox ways to create its own standalone delivery network that surely compare unfavorably to owning and managing the Postal Service's last-mile delivery network.[83] By acquiring ownership and control of that network, Amazon also would relieve the U.S. Treasury of the risk that it currently bears that the federal government one day will be compelled to bail out an insolvent Postal Service that has incurred chronic multi-billion-dollar losses.

74. Amazon evidently understands the strategic implications of parcel delivery rates for the Postal Service's risk of insolvency, for Amazon repeatedly warns in its comments that if the (current, publicly owned) Postal Service is required to comply with a higher appropriate-share obligation under section 3633(a)(3), financial ruin awaits the enterprise. Amazon says that,

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82. *See, e.g.*, Amazon Comments, *supra* note 22, at 42 ("[T]he Postal Service shares [its] economies [of scale, scope, and density in last-mile delivery] with its competitors by unbundling last-mile delivery from upstream functions, and offering last-mile delivery to competitors at reasonable rates (*e.g.*, destination delivery unit ('DDU') rates).").

83. *See, e.g.*, Greg Bensinger, *Amazon's Next Delivery Drone: You*, WALL ST. J. (June 16, 2015), https://www.wsj.com/articles/amazon-seeks-help-with-deliveries-1434466857; Dan Reilly, *Amazon Ponders Crowdsourcing Deliveries with "On My Way" Program*, FORTUNE (June 16, 2015), http://fortune.com/2015/06/16/amazon-crowd-source/.

if the appropriate share were raised, "[t]he Postal Service's ability to provide necessary services, *or even continue operating at all*, would be impaired."[84] Elsewhere, Amazon says, conversely, that "[t]he large and growing contribution from competitive products has played *a crucial role in the financial survival of the Postal Service.*"[85]

75. Amazon is again too modest to claim the credit for throwing the Postal Service the life line that has permitted its "financial survival." What little data are available regarding Amazon's relationship with the Postal Service suggest that Amazon consumes a considerable proportion of the Postal Service's parcel-delivery services. For example, during the 2016 holiday season, Amazon shipped over 1 billion packages.[86] Sanford C. Bernstein & Co. has estimated that the Postal Service delivers 40 percent of Amazon's packages.[87] If that percentage holds true for the 2016 holiday season, the Postal Service shipped approximately 400 million Amazon packages during that period. In November 2016, the Postal Service projected to deliver a total of 750 million packages during the 2016 holiday season[88]—which would imply that *over half* of the Postal Service's holiday deliveries were for Amazon.

76. Surely Amazon has the resources and the access to capital to purchase the Postal Service's last-mile delivery network. Amazon highlights the fact that UPS and FedEx have "a combined market capitalization of approximately $150 billion."[89] Yet again Amazon is too modest, as its own market capitalization is 2.9 times the combined market capitalization of UPS

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84. Amazon Comments, *supra* note 22, at 9 (emphasis added).
85. *Id*. at 21 (emphasis added).
86. Alfred Ng, *Amazon's Best Holiday Season Shipped Over 1 Billion Items*, CNET (Dec. 27, 2016), https://www.cnet.com/news/amazons-prime-best-holiday-season-1-billion-echo-alexa/.
87. Leonard, *It's Amazon's World. The USPS Just Delivers in It*, *supra* note 76.
88. Press Release, United States Postal Service, Postal Service Ready to Deliver Holiday Cheer (Nov. 14, 2016), https://about.usps.com/news/national-releases/2016/pr16_091.htm.
89. Amazon Comments, *supra* note 22, at 7.

and Fed Ex as of March 9, 2017.[90] In four of the five years between 2011 and 2015, Amazon spent more than $600 million on acquisitions.[91] As of 2014, Amazon's five largest acquisitions had been Twitch ($970 million), Zappos ($928 million), Kiva Systems ($775 million), Exchange.com ($645 million), and Quidsi ($545 million).[92]

77. Would it really be feasible for Amazon to buy the last-mile delivery network of the Postal Service? Perhaps not politically. But certainly financially. The Postal Service is obviously not publicly traded, so its market capitalization is not readily observed and subject to comparison. However, the Postal Service reported for fiscal year 2016 annual revenues of $71.498 billion and an operating loss of $5.4 billion.[93] Consequently, one cannot use a price-to-earnings ratio to value the Postal Service as a whole or its last-mile delivery network as a component, since the overall enterprise runs at a loss and thus has no positive earnings. Typically, money-losing businesses sell for a price approaching their liquidation value, for we know by simple arithmetic that the discounted present value of a time series of losses is necessarily a negative number. So the price that Amazon would need to pay to purchase the Postal Service (or its last-mile delivery network) can be a positive number only by virtue of some choice of an optimistic terminal value in the discounted cash flow calculation. The Postal Service

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90. As of March 8, 2017, the market capitalization of UPS was $91.59 billion and that of FedEx was $51.14 billion. *See United Parcel Service, Inc.*, GOOGLE FINANCE, https://www.google.com/finance?q=ups&ei=MQ-WWODLBoj0eLDvrbgF; *FedEx Corp.*, GOOGLE FINANCE, https://www.google.com/finance?q=fedex&ei=CByWWKD1Dc7teJSFrbgB.

91. *See* Todd Bishop, *Amazon Spends $690 Million on Acquisitions in 2015, New Filing Shows*, GEEKWIRE (Jan. 29, 2016), http://www.geekwire.com/2016/amazon-spent-690m-on-acquisitions-over-past-year-new-filing-shows/. Amazon spent $705 million in 2011, $745 million in 2012, $979 million in 2014, and $795 million in 2015 on acquisitions. Amazon.com, Inc., Annual Report for the Fiscal Year Ended December 31, 2011 (SEC Form 10-K), at 36 (filed Jan. 31, 2012); Amazon.com, Inc., Annual Report for the Fiscal Year Ended December 31, 2012 (SEC Form 10-K), at 37 (filed Jan. 29, 2013); Amazon.com, Inc., Annual Report for the Fiscal Year Ended December 31, 2014 (SEC Form 10-K), at 38 (filed Jan. 29, 2015); Amazon.com, Inc., Annual Report for the Fiscal Year Ended December 31, 2015 (SEC Form 10-K), at 38 (filed Jan. 28, 2016).

92. *See* John Cook, *Here Are Amazon's Top 5 Acquisitions of All Time*, GEEKWIRE (Aug. 25, 2014), http://www.geekwire.com/2014/amazons-top-5-biggest-acquisitions-time/.

93. United States Postal Service, Annual Report for the Fiscal Year Ended September 30, 2016 (SEC Form 10-K), at 12 (filed Nov. 15, 2016).

is the antithesis of a startup company whose initial negative cash flow can be expected to turn positive upon the firm's reaching a critical mass. But perhaps the Postal Service's propensity to lose billions of dollars annually would reverse eventually if its operations were taken from the hands of public servants and placed in the hands of private-sector management possessing Amazon's business acumen and unique experience in e-commerce.

78. The modest proposal that Amazon buy the Postal Service's last-mile delivery network is a useful thought experiment that brings into focus the perverse economic incentives facing both Amazon and the Postal Service under the Commission's current policy regarding the appropriate share under section 3633(a)(3). For Amazon to dismiss the proposal out of hand would invite the question, Why? Amazon would not be interested in buying the Postal Service or its last-mile delivery network if Amazon currently may purchase parcel delivery at a price predicated on an erroneously low estimate of the Postal Service's true incremental cost. That (hypothetical) price is an artificially suppressed price that no private, profit-maximizing owner of the Postal Service's last-mile delivery network could replicate. The possibility that the Postal Service, pursuant to its NSA with Amazon, is charging Amazon less than the true incremental cost of parcel delivery is plausible for several reasons.

79. First, the Postal Service's opaque and idiosyncratic accounting conventions appear to enable it to claim that particular costs of great significance (such as the cost of a new, multi-billion-dollar fleet of mail trucks designed to have extra cubic capacity specifically to accommodate more parcels) are entirely institutional rather than directly or indirectly attributable at least in part to parcels.[94] Second, the Postal Service incorrectly ignores any indirect attribution

94. In September 2016, the Postal Service awarded $37.4 million in contracts to six companies to produce prototypes for new custom delivery vehicles. Press Release, U.S. Postal Service, USPS Statement on Next Generation Delivery Vehicles Prototype Selection and Request for Proposal for Commercial Off-the-Shelf Delivery

of common costs incurred across two or more (but not all) products, including two or more competitive products. Third, Amazon and the Postal Service do not disclose the prices that Amazon actually pays the Postal Service for parcel delivery.[95]

80. In other words, if Amazon can buy parcel delivery service for less than its true incremental cost, then some other constituency (taxpayers or consumers of market-dominant products of the Postal Service, most likely) bears the burden of the cost-recovery shortfall. But if Amazon were to own and manage the Postal Service's last-mile delivery network, Amazon would bear the cost-recovery shortfall itself; it would be billing itself an implicit access charge (a transfer payment) for parcel delivery that would be uncompensatory, yet Amazon would be unable to shift the shortfall to taxpayers or consumers of market-dominant products. Under its current public management, the Postal Service is content to incur chronic losses because it is not a profit maximizer, either by legislative mandate or by bureaucratic inclination. Moreover, the Postal Service has publicly represented in its SEC Form 10-K that it fully expects that the federal government would never permit the Postal Service to go broke, but rather would bail out the

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Vehicles (Sept. 16, 2016), http://about.usps.com/news/statements/091616.htm. The Inspector General of the Postal Service has said that "given the growth in packages," the new vehicles will "address the challenges of larger and irregularly shaped items." Press Release, U.S. Postal Service Office of Inspector General, The Road to a New Delivery Fleet (July 28, 2014), https://www.uspsoig.gov/blog/road-new-delivery-fleet. Yet the Postal Service's costing methodology is so opaque that even a private consultancy with access to non-public data could not determine conclusively how the Postal Service would record such expenditures in its cost measures. Comments of the United Parcel Service on Postal Service's FY 2014 Annual Compliance Report, Postal Regulatory Commission, Dkt. No. ACR2014, at 7 (filed Feb. 2, 2015), https://www.prc.gov/docs/91/91320/UPS.14.In.pdf.

95. In Figure 4 of its comments, Amazon presents the "Cumulative Competitive Product Price Increases v. CPI-U" for various parcel delivery products, among others, from fiscal years 2011 to 2017. Amazon Comments, *supra* note 22, at 22 fig.4. The figure's purpose is to contend that parcel shippers are paying the Postal Service much higher prices (relative to inflation) today than in 2011. However, Amazon immediately disclaims in a footnote that this comparison does not apply to what Amazon, the Postal Service's largest parcel-delivery customer, actually pays: "These figures are for competitive products of general applicability. *The prices of Postal Service contract products are not public*." *Id.* at 22 n.8 (emphasis added). In other words, Amazon pays less for parcel delivery than rates "of general applicability." How much less is a secret.

enterprise, regardless of whether the federal government as a legal matter has any official obligation to back with its full faith and credit the debts of the Postal Service.[96]

81. In short, in my opinion it is likely that, because of erroneous and insufficient cost attribution, the discounted present value of Amazon's payments to the Postal Service for parcel delivery under its NSA currently is less than what it would cost Amazon to own and operate the Postal Service's last-mile delivery network and then self-provide—on a privately owned, for-profit basis—the same parcel-delivery services that Amazon currently buys from the Postal Service. If true, that situation is astonishing, considering that the chronic losses of the Postal Service imply that the enterprise would fetch a distressed price if sold.

VI. CONCLUSION

82. For the foregoing reasons, I recommend that the Commission reject as unreliable, and give no weight to, the declaration of Professor Panzar. I reiterate my original recommendation that the Commission adopt UPS's proposed appropriate share contribution.

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I declare under penalty of perjury, under the laws of the United States of America, that the foregoing is true and correct to the best of my knowledge.

96. U.S. Postal Service, Annual Report for the Fiscal Year Ended September 30, 2014 (SEC Form 10-K), at 32 (filed Dec. 5, 2014), https://about.usps.com/who-we-are/financials/10k-reports/fy2014.pdf.

Executed: March 9, 2017.

Respectfully submitted,

J. Gregory Sidak
March 9, 2017