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Before the
POSTAL REGULATORY COMMISSION
Washington, D.C. 20268-0001

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

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

September 12, 2018

EXECUTIVE SUMMARY

1. The U.S. Postal Service has various statutory monopolies over the delivery of mail in the United States.[1] In addition to selling these "market-dominant products," the Postal Service also competes with private firms in the provision of "competitive products," such as the delivery of parcels and overnight mail.[2] The Postal Accountability and Enhancement Act (PAEA) of 2006 created new requirements for the PRC's regulation of prices for the Postal Service's competitive products. Among other things, the PAEA mandates that revenues from competitive postal products cover an "appropriate share" of the Postal Service's "institutional costs," which are the common costs that the Postal Service claims it cannot attribute to any single product.[3] The PAEA also directs the Postal Regulatory Commission (PRC) to determine and review the appropriate share at least every five years.[4]

2. In 2007, the PRC issued a rulemaking that originally set the appropriate share at 5.5 percent of the Postal Service's institutional costs on the basis of its analysis of the historical contribution of competitive postal products to the Postal Service's institutional costs in fiscal year 2005 (5.4 percent) and fiscal year 2006 (5.7 percent).[5] The PRC said that "[s]etting the initial

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1. These statutory monopolies are codified in the U.S. Criminal Code. *See* 18 U.S.C. §§ 1693–97. For a legal and economic analysis of these provisions, see J. GREGORY SIDAK & DANIEL F. SPULBER, PROTECTING COMPETITION FROM THE POSTAL MONOPOLY 11–38 (AEI Press 1996), https://www.criterioneconomics.com/docs/sidak-spulber-protecting-competition-from-the-postal-monopoly.pdf; *see also* J. Gregory Sidak, *Abolishing the Letter-Box Monopoly*, 1 CRITERION J. ON INNOVATION 401 (2016), https://www.criterioneconomics.com/docs/abolishing-the-letter-box-monopoly.pdf.
2. 39 U.S.C. § 3642(a).
3. *See id.* § 3633(a)(3); Postal Regulatory Commission, Notice of Proposed Rulemaking to Evaluate the Institutional Cost Contribution Requirement for Competitive Products, Dkt. No. RM2017-1, 83 Fed. Reg. 6,758, 6,758 (Feb. 14, 2018) [hereinafter PRC, Original NPRM in RM2017-1] ("Institutional costs are residual costs that cannot be specifically attributed to either market dominant or competitive products through reliably identified causal relationships.").
4. Pub. L. No. 109-435, 120 Stat. 3206–07, codified at 39 U.S.C. § 3633(a)–(b).
5. Postal Regulatory Commission, Order Proposing Regulations to Establish a System of Ratemaking, Dkt. No. RM2007-1, ¶ 3059, at 73 (Aug. 15, 2007), https://www.prc.gov/docs/57/57348/RM2007-1FINAL.pdf.

competitive products' contribution at historic levels is a reasonable means to quantify appropriate share, particularly at the outset of the new form of competitive rate regulation."[6] The PRC emphasized that, in setting the appropriate share at 5.5 percent of institutional costs, the Commission was "mindful of the risks of setting [the appropriate share] too high, particularly at the outset of the new system of regulation. The market is competitive; the Postal Service's market share is relatively small; and the Postal Service needs some flexibility to compete."[7] Put differently, in 2007, the PRC set the appropriate share conservatively low to ensure the Postal Service's viability in the market for competitive postal products, in light of the newly enacted regulatory regime.

3. In its first review of the appropriate share in 2012, the Commission decided to keep the appropriate share at its initial level of 5.5 percent, largely because it (erroneously) concluded that the Postal Service lacked an artificial competitive advantage in the market for competitive postal products.[8] I have previously filed an initial declaration and a reply declaration in this docket on behalf of United Parcel Service (UPS) explaining that the PRC should increase the share of institutional costs that competitive products must cover.[9] My initial declaration also explained that the PRC's 2012 analysis was flawed, and that it relied upon an understanding of the Postal

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6. *Id.* ¶ 3060, at 74.

7. *Id.* ¶ 3058, at 73.

8. Postal Regulatory Commission, Order Reviewing Competitive Products' Appropriate Share Contribution to Institutional Costs, Dkt. No. RM2012-3, at 5, 27 (Aug. 23, 2012) [hereinafter PRC, 2012 Appropriate Share Review], https://www.prc.gov/docs/85/85017/Order_1449.pdf.

9. Declaration of J. Gregory Sidak on Behalf of United Parcel Service, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Jan. 23, 2017) [hereinafter Sidak Initial Declaration]; Reply Declaration of J. Gregory Sidak on Behalf of United Parcel Service, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Jan. 23, 2016) [hereinafter Sidak Reply Declaration].

Service's business model that is both outdated and erroneous.[10] My reply declaration[11] principally challenged the opinions that Professor John Panzar expressed in his declaration on behalf of Amazon that "the Commission should eliminate the minimum contribution requirement" altogether,[12] a position that the Postal Service echoed in its submission.[13]

4. On February 14, 2018, the PRC issued a notice of proposed rulemaking (NPRM) pursuant to its second statutorily mandated review of the Postal Service's appropriate-share requirement.[14] The NPRM proposed that a new "formula be used to calculate the minimum amount that competitive products as a whole are required to contribute to institutional costs annually (*i.e.*, the appropriate share)."[15] Several parties, including Robert Shapiro, Soiliou Namoro (for the Public Representative), Amazon, UPS, the Postal Service, and I, filed comments and declarations on April 16, 2018 in response to the NPRM.[16] In my declaration responding to the NPRM, I explained that the PRC's proposed formula-based approach for calculating the Postal Service's

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10. *See* Sidak Initial Declaration, *supra* note 9.

11. *See* Sidak Reply Declaration, *supra* note 9; Declaration of John C. Panzar for Amazon Fulfillment Services, Inc., Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Jan. 23, 2017) [hereinafter Panzar Initial Declaration].

12. Panzar Initial Declaration, *supra* note 11, at 2.

13. *See* Initial Comments of the United States Postal Service at 1, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Jan. 23, 2017) ("The current state of the competitive delivery market provides no basis for an appropriate share requirement at this time, and certainly not for one higher than the current 5.5 percent level.").

14. PRC, Original NPRM in RM2017-1, *supra* note 3.

15. *Id.* at 6,758.

16. Declaration of J. Gregory Sidak on Behalf of United Parcel Service, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Apr. 16, 2018) [hereinafter Sidak Declaration in Response to Original NPRM]; Declaration of Robert J. Shapiro, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Apr. 16, 2018) [hereinafter Shapiro Declaration in Response to Original NPRM]; Declaration of Soiliou Daw Namoro for the Public Representative, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Apr. 16, 2018); Comments of Amazon.com Services, Inc. in Response to Order No. 4402, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Apr. 16, 2018); Initial Comments of United Parcel Service, Inc. on Notice of Proposed Rulemaking to Evaluate the Institutional Cost Contribution Requirement for Competitive Products, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Apr. 16, 2018); Comments of the United States Postal Service in Response to Order No. 4402, Institutional Cost Contribution Requirement for Competitive Products, Postal Regulatory Commission, Dkt. No. RM2017-1 (Apr. 16, 2018).

appropriate-share requirement was unsound and unscientific as a matter of economic analysis. Contrary to the PRC's contentions, the proposed formula would neither reflect the Postal Service's market power nor reflect competitive conditions in the market for competitive postal products.

5. Subsequently, on August 13, 2018, the PRC issued a revised NPRM responding to the comments submitted on April 16, 2018 and proposing a revised formula for calculating the Postal Service's appropriate share.[17] At the request of UPS, I analyze in this declaration the PRC's revised NPRM and explain why the revised formula still is unscientific and unreliable as an economic matter. The PRC's revised formula fails to address substantial shortcomings in the original formula. The revised formula offers little insight into the Postal Service's market power, fails to consider dynamic market changes, and continues to incorporate arbitrary weighting of the inputs used in the formula. The PRC's attempts to defend its formula are misguided as a matter of economics and raise serious questions about the PRC's competence to undertake economic analysis of its proposed rules.

6. I begin, in Part I of this declaration, by explaining that the PRC still fails to correct its flawed interpretation of the findings by the Federal Trade Commission (FTC) in 2007 on the net economic effect of the statutory monopolies enjoyed by the Postal Service.[18] The PRC's failure to correct its flawed interpretation of the FTC's findings renders its attempt at revising its proposed formula a meaningless and unreliable exercise. The PRC's willful reliance on a dubious premise drawn from an outdated factual record epitomizes arbitrary and capricious action by an administrative agency.

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17. Postal Regulatory Commission, Revised Notice of Proposed Rulemaking, Dkt. No. RM2017-1, 83 Fed. Reg. 39,939 (Aug. 13, 2018) [hereinafter PRC, Revised NPRM in RM2017-1].

18. FEDERAL TRADE COMMISSION, ACCOUNTING FOR LAWS THAT APPLY DIFFERENTLY TO THE UNITED STATES POSTAL SERVICE AND ITS PRIVATE COMPETITORS (2007) [hereinafter FTC, ACCOUNTING FOR LAWS], https://www.ftc.gov/sites/default/files/documents/reports/accounting-laws-apply-differently-united-states-postal-service-and-its-private-competitors-report/080116postal.pdf.

7. In Part II, I summarize the PRC's revised formula-based approach for calculating the Postal Service's appropriate-share requirement.

8. In Part III, I explain that the PRC's modified version of the Postal Service Lerner Index, now dubbed the "Competitive Contribution Margin," still would not accurately reflect the Postal Service's market power. The modifications that the PRC proposes to the Postal Service Lerner Index—namely, to replace average revenue with total revenue, and to replace unit-volume-variable cost with total attributable cost—do not enable the PRC to measure the Postal Service's market power more accurately. Moreover, I explain that the PRC incorrectly equates its Competitive Contribution Margin with the operating profit-to-revenue ratio of private firms.

9. In Part IV, I show that the PRC's modifications to its Competitive Market Output variable are arbitrary and unhelpful for purposes of portraying the Postal Service's market position in competitive postal products. That the "Competitive Growth Differential" explicitly incorporates the Postal Service's market share of competitive postal products, and that it accounts for inflation, in no way mitigates the concern that the PRC's proposed formula would fail to reflect dynamic changes in the market for competitive postal products. Furthermore, such modifications would not address the problems associated with the PRC's insistence on measuring output in terms of revenue rather than volume, which the PRC justifies on the grounds that revenue data are publicly available, whereas volume data are not—a clear example of "looking where the light is."

10. Finally, in Part V, I explain that the PRC attempts, but fails, to provide any justification for its decision to assign equal weights to the Competitive Contribution Margin and the Competitive Growth Differential in its revised formula. The PRC's invocation of econometric techniques to defend its noneconometric formula is so irrelevant and arbitrary as to call into question the Commission's understanding of basic economics, let alone econometrics.

I. THE PRC STILL FAILS TO CORRECT ITS FLAWED INTERPRETATION OF THE FTC REPORT

11. In 2007, the FTC issued a report entitled "Accounting for Laws That Apply Differently to the United States Postal Service and Its Private Competitors"[19] in which it attempted to quantify the benefits and costs to the Postal Service that flow from the Postal Service's unique legal status. In that report, the FTC said that the Postal Service's unique legal status caused the Postal Service to incur net costs ranging from $213 million to $743 million annually.[20] However, the FTC emphasized that it had excluded from that estimate key Postal Service benefits that the FTC could not quantify.[21] Those key benefits specifically included, among other things, the value of the "postal and the mailbox monopolies."[22]

12. In the PRC's original NPRM issued in February 2018, and again in this revised NPRM, the PRC says that the FTC's finding in 2007 that the Postal Service operates at a net economic disadvantage relative to private competitors "continues to be valid."[23] However, as I explained in my comments to the PRC's original NPRM, in each year since 2008, the PRC itself has quantified the value of the postal monopoly and the value of the letter-box monopoly, and the Commission has published those updated estimates in its *Annual Report to the President and Congress*.[24] In fact, the same statute that directed the FTC to prepare the report in question also

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19. *Id.*
20. *Id.* at 64.
21. *Id.* at 64 n.287 ("This range is based only on estimates of those burdens and benefits that we have been able to quantify.").
22. *Id.* at 64.
23. PRC, Original NPRM in RM2017-1, *supra* note 3, at 6,776; PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,956.
24. Postal Regulatory Commission, *Report on Universal Postal Service and the Postal Monopoly* 143–44 (Dec. 19, 2008), https://www.prc.gov/Docs/61/61628/USO%20Report.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2009*, at 30–32 (Jan. 1, 2010), https://www.prc.gov/sites/default/files/reports/Annual%20Rpt_2009_456.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2010*, at 30–31 (Dec. 27, 2010), https://www.prc.gov/docs/71/71322/PRC_AR_2010_highres_1558.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2011*, at 43 (Dec. 21, 2011),

directed the PRC, in the preceding section, to provide "estimates of the financial benefits of the postal monopoly to the extent practicable, under current law."[25]

13. In the latest of those reports, published on January 26, 2018, the PRC said that the total value of the postal monopoly in fiscal year 2016 was $5.68 billion, and that the letter-box monopoly accounted for $1.24 billion of that value.[26] Separately, Dr. Robert Shapiro submitted a declaration in response to the PRC's original NPRM showing that the value of the Postal Service's letter-box monopoly attributable to *competitive postal products alone* was $3.9 billion in fiscal year 2016.[27] Moreover, the 2007 FTC report said that, "[a]lthough no commenters provided estimates of the costs of the mailbox monopoly [to the Postal Service's competitors], it may be substantial."[28] In other words, not having access to the letter-box monopoly substantially increases competitors' costs. An increase in competitors' costs is valuable to the Postal Service; alternatively, avoiding those higher costs is of value to the Postal Service.

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https://www.prc.gov/docs/78/78904/PRC_AR_2011_FINALVERSION_2350.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2012*, at 39–40 (Jan. 3, 2013), https://www.prc.gov/docs/86/86069/PRC_2012_Annual_Report_w-links.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2013*, at 31–32 (Jan. 9, 2014), https://www.prc.gov/docs/88/88871/AR2013%20FINAL-REVISED%20PDF%20(2)_3465.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2014*, at 47–48 (Jan. 5, 2015), https://www.prc.gov/sites/default/files/reports/PRC-Annual-Report-2014-Online.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2015*, at 48 (Jan. 6, 2016), https://www.prc.gov/sites/default/files/reports/PRC%20Annual%20Report%20FY%202015.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2016*, at 48 (Jan. 12, 2017), https://www.prc.gov/sites/default/files/reports/2016%20Annual%20Report%20Final.pdf; Postal Regulatory Commission, *Annual Report to the President and Congress: Fiscal Year 2017*, at 54 (Jan. 26, 2018) [hereinafter PRC, *FY 2017 Annual Report to the President and Congress*], https://www.prc.gov/docs/103/103595/PRC%20FY%202017%20Annual%20Report.pdf.

25. Pub. L. No. 109-435, 120 Stat. 3244, § 702(b)(2)(B) (2006). The PRC defines the value of the postal monopoly as "an estimate of the profit that the Postal Service would lose if both the mailbox and letter monopolies were lifted, and the Postal Service were subject to competition for mail currently covered by the postal monopoly." PRC, *FY 2017 Annual Report to the President and Congress*, *supra* note 24, at 54.

26. PRC, *FY 2017 Annual Report to the President and Congress*, *supra* note 24, at 54.

27. Shapiro Declaration in Response to Original NPRM, *supra* note 16, at 3.

28. FTC, ACCOUNTING FOR LAWS, *supra* note 18, at 52.

14. Uncodified section 703(d) of the PAEA states that the PRC "shall take into account the recommendations of the Federal Trade Commission, and *subsequent events that affect the continuing validity of the estimate of the net economic effect*, in promulgating or revising the regulations required under section 3633 of title 39, United States Code." [29] Surely, the quantification of the value of the Postal Service's postal and letter-box monopolies, which the FTC admittedly did not consider in its 2007 report, constitutes a "subsequent event" affecting the validity of the FTC's conclusion in 2007 that the Postal Service operates at a competitive disadvantage relative to private competitors in the provision of competitive postal products. Yet the PRC says in this revised NPRM that neither have the comments submitted to the original NPRM nor has the PRC itself "identified any subsequent events that would affect its section 703(d) analysis."[30]

15. Curiously, the PRC acknowledges in a footnote to the revised NPRM that "[t]he Commission's discussion on the FTC Report and section 703 [in the original NPRM] elicited multiple comments," and that the PRC will address those comments in a "subsequent order."[31] It is misleading and disingenuous for the PRC to conclude that no subsequent events affecting the validity of the FTC's 2007 analysis have been identified when (1) the PRC itself has quantified

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29. Pub. L. No. 109-435, 120 Stat. 3244, § 703(d) (2006) (emphasis added).

30. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,956.

31. *Id.* at 39,956 n.69 ("The Commission's discussion on the FTC Report and section 703 elicited multiple comments. However, as this Revised Notice of Proposed Rulemaking is concentrated on modifications to the proposed formula-based approach, the Commission will address the comments received on the FTC Report and section 703(d) in a subsequent order." (internal citations omitted)). Similarly, the PRC ignores comments related to the degree to which the Postal Service's costs are associated with competitive postal products. *Id.* at 39,955 ("The Commission's discussion on whether any costs were uniquely associated or disproportionately associated with any competitive products elicited multiple comments. However, as this Revised Notice of Proposed Rulemaking is concentrated on modifications to its proposed formula-based approach, the Commission will address the comments related to 'the degree to which any costs are uniquely or disproportionately associated with any competitive products' in a subsequent order.").

the benefits that the Postal Service derives from the postal and letter-box monopolies and (2) the PRC has not even attempted to address comments related to section 703(d) in this revised NPRM.

16. The PRC's failure to address comments related to the its section 703(d) analysis is particularly critical given that it emphasizes that "a section 703(d) analysis is the *primary way* the Commission assesses whether Postal Service competitive products have a competitive advantage due to differences in the application of federal and state laws to the Postal Service compared to competitors."[32] Put differently, assessing the relevance and validity of the FTC's 2007 analysis is central to the PRC's appropriate-share inquiry. Without that analysis, the PRC's revised formula lacks any context or justification. In other words, without determining whether the Postal Service continues to operate at a competitive disadvantage *in 2018*, it is impossible for the PRC to evaluate whether the appropriate-share values calculated by its revised formula are in fact appropriate.

17. In fact, in the previous appropriate-share analysis in 2012, the PRC said: "The lack of evidence showing that the Postal Service has an advantage over its competitors with respect to competitive products supports a conclusion that the appropriate share requirement of a 5.5 percent minimum is not too low."[33] That is, the PRC specifically tied its analysis of the appropriate share in 2012 to its misinformed inferences from the 2007 FTC report and the purported lack of contradictory evidence.

18. In sum, by failing to correct its flawed interpretation of the 2007 FTC report in this revised NPRM, the PRC in effect ensures the pointlessness of its attempt at revising the appropriate-share formula. To propose any revisions to the appropriate-share formula, the PRC would first need to complete its review of the submitted comments to the original NPRM to

32. *Id.* at 39,953 n.60 (emphasis added).

33. Postal Regulatory Commission, Order Reviewing Competitive Products' Appropriate Share Contribution to Institutional Costs at 16, Dkt. No. RM2012-3 (Aug. 23, 2012), https://www.prc.gov/docs/85/85017/Order_1449.pdf [hereinafter PRC, Order Reviewing Appropriate Share in RM2012-3].

determine whether there exists evidence challenging the validity of the FTC's finding from eleven years earlier that the Postal Service operates at a competitive disadvantage in the market for competitive postal products. Had the PRC conducted a proper review of those submitted comments, it would have found that the FTC's stale finding is no longer defensible.

II. THE PRC'S REVISED FORMULA

19. In its original NPRM issued in February 2018, the PRC proposed the following formula to calculate the Postal Service's appropriate-share requirement:

$$AS_{t+1} = AS_t \times (1 + \%\Delta LI_{t-1} + \%\Delta CMO_{t-1}), \tag{1}$$

where AS_{t+1} is the Postal Service's appropriate-share requirement in fiscal year t+1, AS_t is the appropriate-share requirement in fiscal year t, $\%\Delta LI_{t-1}$ is the percentage change in the Postal Service Lerner Index from fiscal year t–2 to fiscal year t–1, and $\%\Delta CMO_{t-1}$ is the percentage change in the Competitive Market Output from fiscal year t–2 to fiscal year t–1.[34]

20. In the revised NPRM, the PRC proposes a modified version of Equation 1 to calculate the Postal Service's appropriate-share requirement. Specifically, the PRC replaces the percentage change in the Postal Service Lerner Index with the percentage change in the so-called "Competitive Contribution Margin,"[35] and it replaces the percentage change in the Competitive Market Output with the so-called "Competitive Growth Differential."[36] Apart from replacing those two components, the PRC does not modify the original formula.

34. PRC, Original NPRM in RM2017-1, *supra* note 3, at 6,766.
35. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,942.
36. *Id.* at 39,946.

A. The "Competitive Contribution Margin"

21. In its original NPRM, the PRC calculates the Postal Service Lerner Index in each fiscal year using the following equation:

$$LI_t = (p_t - vvc_t) \div p_t, \tag{2}$$

where LI_t is the Postal Service Lerner Index for competitive products in fiscal year t, p_t is revenue-per-piece for competitive products (that is, total competitive revenue divided by total competitive volume) in fiscal year t, and vvc_t is the unit volume-variable cost for competitive products (that is, total volume-variable cost for competitive products divided by total competitive volume) in fiscal year t.[37] The PRC calculates p_t by dividing the sum of total competitive-product revenue by total competitive-product volume using data from the Postal Service Product Finances Analysis (PFA).[38] The PRC calculates vvc_t by dividing the total competitive-product volume-variable costs by total competitive-product volume using data from the PFA.[39]

22. In the revised NPRM, the PRC modifies the Postal Service Lerner Index in two steps. First, the PRC multiplies both the numerator ("$p_t - vvc_t$") and denominator ("p_t") of the Postal Service Lerner Index by the Postal Service's total competitive-product volume, such that the Postal Service Lerner Index is expressed as:

$$LI_t = (R_{USPS,t} - VC_t) \div R_{USPS,t},^{40} \tag{3}$$

where $R_{USPS,t}$ is the Postal Service's revenue from competitive products in fiscal year t, and VC_t is the Postal Service's total volume-variable cost for competitive products in fiscal year t.[41] Then,

37. PRC, Original NPRM in RM2017-1, *supra* note 3, at 6,762–63.

38. *Id.* at 6,763. The Commission uses the Postal Service's Cost and Revenue Analysis (CRA) report as inputs to its PFA. *Id.* at 6,762.

39. *Id.* at 6,762.

40. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,943. For a step-by-step derivation of this equation, see *id.*

41. *Id.*

the PRC replaces volume-variable cost in Equation 3 with attributable cost (which is the sum of "volume-variable costs, product-specific costs, and inframarginal costs calculated as part of each competitive product's incremental costs"[42]) to derive an equation for the Competitive Contribution Margin.[43]

23. Thus, in a given fiscal year *t*, the PRC calculates the Competitive Contribution Margin using the following equation:

$$CCM_t = (R_{USPS,t} - AC_t) \div R_{USPS,t}, \tag{4}$$

where CCM_t is the Postal Service's Competitive Contribution Margin in fiscal year t, $R_{USPS,t}$ is the Postal Service's revenue from competitive products in fiscal year t, and AC_t is the Postal Service's total attributable cost for competitive products in fiscal year t.[44] As in the original NPRM, the PRC obtains data on the Postal Service's revenue and cost from the PFA.[45]

B. The "Competitive Growth Differential"

24. In its original NPRM, the PRC calculates the Competitive Market Output in each fiscal year using the following equation:

$$CMO_t = R_{USPS,t} + R_{Competitors,t}, \tag{5}$$

where CMO_t is the total competitive market output (in terms of revenue) in fiscal year t, $R_{USPS,t}$ is the Postal Service's revenue from competitive products in fiscal year t, and $R_{Competitors,t}$ is the revenue from "'similar products' offered by the Postal Service's competitors" in fiscal year t.[46] The PRC obtains data for $R_{USPS,t}$ from the PFA.[47] In addition, it obtains $R_{Competitors,t}$ by combining

42. *Id.*
43. *Id.*
44. *Id.*
45. *Id.* at 39,942. The Commission uses data from the Postal Service's Cost and Revenue Analysis (CRA) report as inputs to its PFA. *Id.*
46. PRC, Original NPRM in RM2017-1, *supra* note 3, at 6,764.
47. *Id.*

data for the "Couriers and Messengers" subsector (NAICS code 492) from the Quarterly Services Survey (QSS) and Service Annual Survey (SAS) conducted by the U.S. Census Bureau.[48]

25. In the revised NPRM, to modify the Competitive Market Output, the PRC first rearranges the terms of the equation for the percentage change in Competitive Market Output to derive the following equation:

$$\%\Delta CMO_t = MS_{USPS,t-1} \times (\%\Delta R_{USPS,t} - \%\Delta R_{Competitors,t}) + \%\Delta R_{Competitors,t}, \tag{6}$$ [49]

where $\%\Delta CMO_t$ is the percentage change in Competitive Market Output, $MS_{USPS,t-1}$ is the Postal Service's share of total revenue in the market for competitive products in fiscal year t–1, $\%\Delta R_{USPS,t}$ is the percentage change in the Postal Service's revenue from competitive products from fiscal year t–1 to fiscal year t, and $\%\Delta R_{Competitors,t}$ is the percentage change in revenue from "'similar products' offered by the Postal Service's competitors" from fiscal year t–1 to fiscal year t.[50] The PRC calculates $MS_{USPS,t-1}$ using the following equation:

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48. *Id.* The Postal Service's fiscal year ends on September 30 of each year. U.S. POSTAL SERVICE, FY2017 ANNUAL REPORT TO CONGRESS 29 (2017), https://about.usps.com/who-we-are/financials/annual-reports/fy2017.pdf. Thus, the PRC combines quarterly data from the QSS such that its measure of competitors' annual revenue "correspond[s] with the Postal Service's fiscal years." PRC, Original NPRM in RM2017-1, *supra* note 3, at 6,764. For example, to calculate competitors' total revenue in the Postal Service fiscal year 2010, the PRC aggregates competitors' quarterly revenue from the fourth quarter of calendar year 2009 to the third quarter of calendar year 2010. However, because the QSS data are unavailable before 2009, the PRC uses SAS data to derive competitors' annual revenue between 2007 and 2009. *Id.* at 6,765. Although the PRC purports to limit competitors' output to packages that weigh less than 70 pounds, I have found no such adjustment in the PRC's submitted Library Reference. *See id.* at 6,764 ("The second group is 'similar products' offered by the Postal Service's competitors. This group excludes any competitors' products that the Postal Service does not actually compete with. For example, the Postal Service does not accept parcels weighing more than 70 pounds, so competitors' parcels over 70 pounds are excluded from the competitive market definition."); Postal Regulatory Commission, Library Reference PRC-LR-RM2017-1/1—Order No. 4402 Supporting Data and Sources, Dkt. No. RM2017-1 (Feb. 8, 2018), https://www.prc.gov/dockets/document/103726. Thus, the PRC's calculation of the Competitive Market Output, as reported in the original NPRM, likely misrepresents the revenue from competitors' products that are supposedly "similar" to the Postal Service's competitive products.

49. For a step-by-step derivation of this formula, see Postal Regulatory Commission, Library Reference PRC-LR-RM2017-1/2—Order No. 4742 Supporting Data and Sources, Dkt. No. RM2017-1 (Aug. 7, 2018), https://www.prc.gov/dockets/document/106093 [hereinafter PRC, Library Reference PRC-LRRM2017-1/2 in RM2017-1].

50. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,945–46.

$$MS_{USPS,t-1} = R_{USPS,t-1} \div (R_{USPS,t-1} + R_{Competitors,t-1}), \tag{7}$$

where $R_{USPS,t-1}$ is the Postal Service's revenue from competitive products in fiscal year t–1, and $R_{Competitors,t-1}$ is the combined revenue from the Postal Service's competitors in fiscal year t–1.[51]

26. The PRC says that the last term in Equation 6 ("+ $\%\Delta R_{Competitors,t}$") "results in the disproportionate incorporation of competitor revenue because the growth in competitor revenue is not weighted by market share."[52] Therefore, it eliminates that term to derive the equation for the Competitive Growth Differential:

$$CGD_t = MS_{USPS,t-1} \times (\%\Delta R_{USPS,t} - \%\Delta R_{Competitors,t}), \tag{8}$$

where CGD_t is the Competitive Growth Differential in fiscal year t. As with its previous formula, the PRC obtains revenue data for the Postal Service from the PFA and it obtains revenue data for the Postal Service's competitors from the Quarterly Services Survey (QSS) and Service Annual Survey (SAS) conducted by the U.S. Census Bureau. However, for the modified formula, the PRC adjusts those revenue data for inflation, using the Consumer Price Index for All Urban Consumers (CPI-U) obtained from the Bureau of Labor Statistics (BLS).[53]

C. Summation

27. In each fiscal year, the PRC proposes to calculate the Postal Service's appropriate-share requirement for the next fiscal year using the revised formula:

$$AS_{t+1} = AS_t \times (1 + \%\Delta CCM_{t-1} + CGD_{t-1}), \tag{9}$$

where AS_{t+1} is the Postal Service's appropriate-share requirement in fiscal year t+1, AS_t is the appropriate-share requirement in fiscal year t, $\%\Delta CCM_{t-1}$ is the percentage change in the Postal

51. *Id.* at 39,946.
52. *Id.* at 39,947.
53. *Id.* at 39,946.

Service's Competitive Contribution Margin from fiscal year t–2 to fiscal year t–1, and CGD_{t-1} is the Competitive Growth Differential in fiscal year t–1.[54] The revised formula therefore continues to weight the two components—the Competitive Contribution Margin and the Competitive Growth Differential—equally.[55] For reasons that will become clear, the PRC's modifications to the Postal Service Lerner Index and Competitive Market Output in effect do little (if anything) to improve the reliability of the Commission's appropriate-share formula.

III. THE COMPETITIVE CONTRIBUTION MARGIN IS AN UNSOUND, UNRELIABLE, AND MISLEADING MEASURE OF THE POSTAL SERVICE'S MARKET POWER

28. As explained in Part II.A, the only algebraic difference between the Postal Service Lerner Index and the Competitive Contribution Margin is that the Competitive Contribution Margin uses attributable cost rather than volume variable cost as an input to the calculation of the component. The PRC contends that "the Competitive Contribution Margin provides a more complete view of the Postal Service's market power" than the Postal Service Lerner Index.[56] However, the PRC's modification to the Postal Service Lerner Index neither addresses the criticism that the Postal Service Lerner Index incorrectly uses average revenue as a measure of price nor enables the formula to reflect more accurately the Postal Service's market power.

A. The Competitive Contribution Margin Does Not Address the Criticism That the Postal Service Lerner Index Incorrectly Uses Average Revenue as a Measure of Price

29. In my comments on the original NPRM, I explained that a firm's average revenue might be an inaccurate and unreliable measure of price when that firm engages in price

54. *Id.* at 39,950.
55. *Id.* at 39,951–52.
56. *Id.* at 39,945.

discrimination.[57] Regardless of the particular method of price discrimination, the marginal unit of a price-discriminating firm is typically sold at a price below the average price.[58] Thus, when a firm engages in price discrimination, average revenue will typically overstate price.

30. The PRC claims that it has addressed UPS's and my criticism that the PRC incorrectly uses average revenue as a proxy for price in the Postal Service Lerner Index by "omit[ting] averaging" and simply "us[ing] total revenue for all competitive products in its modified component."[59] However, as the PRC itself recognizes, "this modification does not affect what the component measures," because a Competitive Contribution Margin that uses total revenue (and total attributable cost) is mathematically equivalent to one that uses average revenue (and unit attributable cost).[60] Because the Postal Service is a multiproduct entity that engages in price discrimination, using total revenue is just as unreliable as using average revenue in informing the Postal Service's market power. Thus, the Competitive Contribution Margin continues to suffer from the flaws of the Postal Service Lerner Index and consequently fails to capture accurately the Postal Service's market power over competitive products.

B. The PRC's Competitive Contribution Margin Differs from the Operating Profit-to-Revenue Ratio That Economists Use to Approximate a Private Firm's Market Power

31. The PRC says that the Competitive Contribution Margin "better reflects modern economic literature on the subject of measuring market power. As Sidak notes, '[e]conomists routinely use the ratio of "operating profits net of depreciation, provisions and an estimated

57. *See* Sidak Declaration in Response to Original NPRM, *supra* note 16, at 30–31. The Postal Service engages in price discrimination in its provision of (competitive) package-delivery services by virtue of its use of (confidentially) negotiated service agreements (NSAs), which are contracts with large mailers by which the Postal Service offers discounted rates for shipping a large volume of parcels or extremely urgent mail and, in many cases, injecting those items at some intermediate point in the mail stream. *Id.*

58. *See, e.g.*, JEFFREY M. PERLOFF, MICROECONOMICS: THEORY AND APPLICATIONS WITH CALCULUS 426–27 (Pearson 3d ed. 2014).

59. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,943.

60. *Id.*

financial cost of capital [to] sales" as a proxy for a firm's Lerner [i]ndex.'"[61] However, for at least three reasons it is inappropriate for the PRC to equate the Postal Service's Competitive Contribution Margin with a private firm's operating profit margin.

1. The Postal Service Does Not Maximize Profits

32. First, any inference of market power from a firm's operating profit margin would be appropriate only when the firm in question maximizes profit. As I have explained in my declaration responding to the PRC's original NPRM, the Postal Service is a state-owned enterprise that manifestly seeks to maximize a weighted average of revenue and profit.[62] It is consequently false and misleading as a matter of economic analysis for the PRC to purport to infer the Postal Service's market power from its operating profit margin.

33. The PRC asserts that, because the PAEA "allows the Postal Service to retain earnings, the Postal Service is incentivized to maximize profits on competitive products."[63] However, simply because the Postal Service has an incentive to maximize profits, it does not follow that the Postal Service actually maximizes profits. In fact, the evidence suggests otherwise. The PAEA provides that earnings from competitive products be retained in the Competitive Products Fund, and it even permits the Postal Service to request the Secretary of the Treasury to invest these retained earnings in any Federal Reserve Bank or in other depositories.[64] However, there is no evidence of such investments, and indeed the funds in the Competitive Products Fund are transferred out of the Fund annually.[65]

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61. *Id.* (quoting Sidak Declaration in Response to Original NPRM, *supra* note 16, at 47) (alteration in original).
62. *See* Sidak Declaration in Response to Original NPRM, *supra* note 16, at 20–24.
63. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,944.
64. 39 U.S.C. §§ 2011(c)–(d).
65. *See* U.S. Postal Service, Competitive Products Fund Report for Fiscal Year Ending September 30, 2017, at 4 (Dec. 28, 2017), https://www.prc.gov/docs/103/103294/USPS.FY17.39.Preface.CPF.Report.pdf ("In FY2017, the Postal Service transferred $2.599 billion from the Competitive Products Fund to the Postal Service Fund.").

34. Moreover, the Postal Service loses money on inbound international parcel delivery, and, although these rates are set by the Universal Postal Union (UPU),[66] there is little evidence that the Postal Service has attempted to raise these rates at the UPU. This record suggests that the Postal Service is seeking expanded volume, not profit. Therefore, the Postal Service's profit margin on competitive products is hardly an indicator of its market power. Because the Postal Service does not have shareholders or owners of any kind (who would benefit from profit maximization), the PRC must do more than merely assert that the Postal Service has an incentive to maximize profits to argue plausibly that the Postal Service is a profit-maximizing firm. This gap in the PRC's logic is a fundamental flaw in the PRC's revised formula, as well as its original formula.

2. The Postal Service Does Not Disclose Product-Level Data

35. Second, private firms, unlike the Postal Service, typically do not disclose product-level cost data. These data restrictions limit one's ability to estimate a private firm's Lerner index at the product level. In the case of the Postal Service, section 3633(a)(2) of the PAEA mandates the PRC to "ensure that each competitive product covers its costs attributable."[67] The direct implication of that statutory mandate is that the PRC has access to the Postal Service's product-level cost data. There is consequently no justification for the PRC to calculate the Postal Service's Competitive Contribution Margin across all competitive products in the aggregate when the Postal Service's product-level cost data are readily available to the Commission.

66. OFFICE OF INSPECTOR GENERAL U.S. POSTAL SERVICE, INTERNATIONAL TERMINAL DUES WHITE PAPER, at i (2004), https://www.uspsoig.gov/sites/default/files/document-library-files/2015/ms-wp-14-002_0.pdf ("The UPU is an agency of the United Nations whose primary functions include setting policy and establishing rates every 4 years for mail products. These rates can vary by country classification as determined by the member countries at the UPU Congress.").

67. 39 U.S.C. § 3633(a)(2).

3. The PRC's Definition of the Postal Service's "Operating Profit" Is Plainly Erroneous as a Matter of Economics

36. Third, the PRC says that the Competitive Contribution Margin "determin[es] the ratio of operating profit to revenue."[68] The PRC further asserts that "[t]he difference between total competitive product revenue and total competitive product attributable costs constitutes the profit derived from competitive products."[69] However, that assertion is incorrect. The definition of operating profit is not standardized in the economic literature; but, at a minimum, it should include operating costs, such as variable costs, even if they are shared with other products. However, the PRC excludes all shared costs, including shared variable costs, from its calculation of "operating profit."[70] That exclusion is plainly erroneous as a matter of economics. Omitting shared costs will vastly overstate the Postal Service's operating profit from competitive products. Hence, the Competitive Contribution Margin does not result in an accurate operating profit-to-revenue ratio.

37. Moreover, "market power" as understood in both a legal and economic context typically measures a firm's ability to increase market prices above those that would prevail in a competitive market.[71] The concern of the Postal Service's competitors and of Congress in its passage of the PAEA was that the Postal Service distorts competition by charging prices *below* those that would prevail in a competitive market.[72] Even if measured correctly and consistently

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68. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,943.

69. *Id.* at 39,943 n.20.

70. *Id.* at 39,943.

71. *See, e.g.*, William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 937 (1981) ("The term 'market power' refers to the ability of a firm (or a group of firms, acting jointly) to raise price above the competitive level without losing so many sales so rapidly that the price increase is unprofitable and must be rescinded."); *see also* DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 642 (Pearson 4th ed. 2005) ("A firm (or group of firms acting together) has market power if it is profitably able to charge a price above that which would prevail under competition, which is usually taken to be marginal cost.").

72. *See, e.g.*, *Guiding Principles for Implementation of the Postal Act of 2006*, U.S. POSTAL SERVICE, https://about.usps.com/postal-act-2006/guiding-principles-final.htm ("These guiding principles are consistent with the intent of Congress that the Postal Service continue to provide reliable universal service at affordable prices, while enhancing its ability to operate in a more businesslike manner and foster growth and innovation in the mailing industry[.] [Among other things, adherence to these principles] . . . allows the Postal Service's competitive products

with common economic analysis of market power, the PRC never explains how the Postal Service's "market power" to *increase* prices is a relevant measure of either (1) the Postal Service's ability to *decrease* prices inefficiently, or (2) the appropriate share of institutional cost coverage necessary to ensure that the Postal Service does not charge inefficiently *low* prices.

38. Finally, the PRC states that, "[b]ecause the Competitive Contribution Margin measures all costs caused by competitive products, including those that cannot be attributed to any one competitive product specifically, the Competitive Contribution Margin provides a more complete view of the Postal Service's market power."[73] However, the PRC again fails to consider *all* costs because it excludes shared costs.

IV. THE COMPETITIVE GROWTH DIFFERENTIAL IS AN UNRELIABLE MEASURE OF THE POSTAL SERVICE'S MARKET POSITION

39. I explained in my comments on the original NPRM that the PRC's proposed formula would fail to capture the dynamic market growth caused by vertical entry into last-mile package delivery by large retailers.[74] Moreover, I explained that measuring output in terms of revenue (rather than unit volume) can fail to capture growth in the market for competitive postal products if competitive pressure reduces unit price more rapidly than unit volume increases.[75]

40. The PRC says that "[t]he Competitive Growth Differential better reflects the Postal Service's position in the overall competitive market and addresses the concerns raised by commenters [in response to the February 2018 NPRM]."[76] According to the PRC, the Competitive

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to compete fairly in the marketplace . . . [and] ensures adequate revenues to support the network and set prices that cover cost in a manner required by law.").

73. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,944–45.
74. *See* Sidak Declaration in Response to Original NPRM, *supra* note 16, at 32–35.
75. *Id.* at 36.
76. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,946.

Growth Differential supposedly would reflect conditions in the market for competitive postal products more reliably than the Competitive Market Output included in its original formula because the Competitive Growth Differential "directly incorporates the Postal Service's market share into the appropriate share calculation" and "accounts for inflation."[77] However, those modifications would do little (if anything) to improve the PRC's formula-based approach to calculating the Postal Service's appropriate-share requirement. Neither of those modifications addresses my criticism that the PRC's formula would fail to reflect dynamic changes in the market for competitive postal products, or the criticism that it would be inappropriate for the PRC to measure output in terms of revenue rather than unit volume.

A. The Postal Service's Market Share Is an Arbitrary and Extraneous Term in the PRC's Competitive Growth Differential

41. The apparent objective of the PRC's Competitive Growth Differential is to measure "the Postal Service's growth relative to that of its competitors."[78] However, the PRC can achieve this goal even without including a term for the Postal Service's market share in the Competitive Growth Differential. Table 1 summarizes the resulting sign of the Competitive Growth Differential for different combinations of signs for the percentage change in the Postal Service's revenue from competitive postal products and the percentage change in competitors' revenue.

77. *Id.* at 39,947.
78. *Id.* at 39,946.

TABLE 1: HYPOTHETICAL VALUES OF THE COMPETITIVE GROWTH DIFFERENTIAL UNDER DIFFERENT MARKET SCENARIOS

Sign of Percentage Change in Postal Service Revenue ($\%\Delta R_{USPS}$)	**Sign of Percentage Change in Competitors' Revenue ($\%\Delta R_C$)**	**Sign of Competitive Growth Differential $MS_{USPS} \times (\%\Delta R_{USPS} - \%\Delta R_C)$**
Positive	Positive	Positive if $\%\Delta R_{USPS} > \%\Delta R_C$; Zero if $\%\Delta R_{USPS} = \%\Delta R_C$; Negative if $\%\Delta R_{USPS} < \%\Delta R_C$.
Positive	Negative	Always positive
Negative	Positive	Always negative
Negative	Negative	Positive if $\%\Delta R_{USPS} < \%\Delta R_C$; Zero if $\%\Delta R_{USPS} = \%\Delta R_C$; Negative if $\%\Delta R_{USPS} > \%\Delta R_C$.

Source: Original analysis.
Note: I assume that the Postal Service's market share (MS_{USPS}) is non-zero.

42. As Table 1 shows, if the Postal Service's revenue from competitive postal products grows more quickly relative to the revenue of competitors, or if the Postal Service's revenue from competitive postal products decreases more slowly relative to the revenue of competitors, the sign of the Competitive Growth Differential will always be positive. In those cases, all other factors held constant, the Postal Service's appropriate-share requirement will *increase*. In contrast, if the Postal Service's revenue from competitive postal products grows more slowly relative to the revenue of competitors, or if the Postal Service's revenue from competitive postal products decreases more quickly relative to the revenue of competitors, the sign of the Competitive Growth Differential will always be negative. In these cases, all other factors held constant, the Postal Service's appropriate-share requirement will *decrease*. This relationship holds true regardless of whether the Postal Service's market share of competitive postal products is 1 percent or 99 percent. Put differently, the Competitive Growth Differential would "capture[] the change in the size of the Postal Service's competitive business relative to that of the Postal Service's competitors"[79] even without including a term for the Postal Service's market share of competitive postal products.

79. *Id.* at 39,947.

43. In fact, because the Postal Service's market share necessarily is a decimal value between zero and one, the Postal Service's market share will serve as a scalar multiple that *always reduces* the magnitude of the Competitive Growth Differential (unless the Postal Service obtains a 100-percent market share of competitive postal products). Table 2 demonstrates the effect that the term for the Postal Service's market share of competitive postal products has on values of the Competitive Growth Differential.

TABLE 2: THE EFFECT OF MULTIPLICATION BY THE POSTAL SERVICE'S MARKET SHARE ON THE COMPETITIVE GROWTH DIFFERENTIAL

Fiscal Year	**Percentage Change in Postal Service Revenue ($\%\Delta R_{USPS}$) [A]**	**Percentage Change in Competitors' Revenue ($\%\Delta R_C$) [B]**	**Competitive Growth Differential Absent Multiplication by Postal Service Market Share [C] = [A] – [B]**	**Postal Service's Market Share of Competitive Postal Products [D]**	**Competitive Growth Differential [E] = [C] × [D]**
2007	–	–	–	9.2%	–
2008	2%	–6%	8%	9.9%	0.7%
2009	–3%	–15%	12%	11.2%	1.2%
2010	5%	–3%	8%	12.0%	0.9%
2011	0%	2%	–2%	11.9%	–0.2%
2012	25%	1%	23%	14.2%	2.7%
2013	19%	1%	18%	16.2%	2.5%
2014	9%	2%	8%	17.2%	1.2%
2015	7%	6%	1%	17.4%	0.2%
2016	11%	3%	8%	18.5%	1.4%
2017	10%	4%	6%	19.4%	1.1%

Source: I obtained [A], [B], and [D] from PRC, Library Reference PRC-LRRM2017-1/2 in RM2017-1, *supra* note 49, tab 6 ("CMO & CGD").
Note: I calculate [C] and [E] using raw values of [A], [B], and [D] contained in the Library Reference and report the rounded values of [C] and [E] in this table.

As Table 2 shows, multiplication of the difference between the percentage change in the Postal Service's revenue from competitive postal products and the percentage change in competitors' revenue (column [C]) by the Postal Service's market share (column [D]) produces values that are lower by orders of magnitude for the Competitive Growth Differential (column [E]). As a result, the Competitive Growth Differential would have minimal effect on the Postal Service's appropriate-share requirement even when the Postal Service experiences rapid growth in the market for competitive postal products. For example, consider fiscal year 2012, when the Postal Service's revenue from competitive postal products increased by 25 percent, in contrast to the 1-percent increase in competitors' revenue. Although the Postal Service's revenue grew 25 times faster than competitors' revenue, the PRC's Competitive Growth Differential in fiscal year 2012 was a mere 2.7 percent.

44. The PRC provides no justification for including a term for the Postal Service's market share of competitive postal products in the Commission's revised formula—other than the assertion that including that term "addresses comments that the Competitive Market Output failed to consider the Postal Service's market share."[80] In other words, the Postal Service's market share is an extraneous term in the PRC's revised formula that serves no purpose other than to attempt to stifle criticisms that the PRC failed to account for the Postal Service's market share of competitive postal products. It is arbitrary for the PRC to include a variable in its latest proposed formula without providing any economic justification for including the variable.

B. The Competitive Growth Differential Still Would Not Reflect Dynamic Changes in the Market for Competitive Postal Products, Including Vertical Integration by Large Retailers

45. The PRC fails to address my comment from the previous NPRM that the proposed formula would not reflect dynamic changes in the market for competitive products. As I explained before, revenue from self-delivery by large retailers will likely be integrated into their end-to-end shipping costs, and those data (which belong to private, unregulated firms) would not be available

80. *Id.*

to the Census Bureau.[81] Yet the PRC completely neglects to address that concern in its revised NPRM, and instead it continues to rely on revenue data reported by the Census Bureau to calculate the Competitive Growth Differential.[82] As a result, the PRC's revised formula still would not reflect market growth from vertical integration into parcel delivery by large retailers.

46. For example, suppose that retailer *A* delivered all of its 100 million packages to consumers through the Postal Service's competitors in fiscal year 2017. In fiscal year 2018, retailer *A* had the same number of packages as in 2017, but it self-delivered 50 million of those packages such that the Postal Service's competitors delivered only 50 million packages in 2018, as opposed to 100 million in 2017.[83] In that case, all other factors held constant, the revenues of the Postal Service's competitors would decrease in 2018 relative to 2017, even though the number of retailer *A*'s packages delivered to consumers remains constant over the two fiscal years. Put differently, the PRC's revised formula would erroneously perceive the effect of vertical entry to be a decrease in the revenue of the Postal Service's competitors, which would artificially increase the Postal Service's appropriate-share requirement.

47. Moreover, the revised formula would fail to reflect market growth or the Postal Service's market share entirely if the Postal Service and its competitors experience the same percentage increase or decrease in revenue from one fiscal year to another. For example, suppose that growth in package delivery causes both the Postal Service and its competitors to experience the same percentage increase in revenue from fiscal year 2017 to fiscal year 2018. Table 3

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81. *See* Sidak Declaration in Response to Original NPRM, *supra* note 16, at 32–35.

82. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,946.

83. In fact, on September 5, 2018, Amazon announced that it intended to purchase 20,000 delivery vans to self-deliver more packages. *See* Press Release, Mercedes-Benz, Mercedes-Benz Vans Opens New Sprinter Plant in North Charleston—Amazon Becomes the World's Largest Sprinter Customer (Sept. 5, 2018), https://www.media.mbusa.com/releases/release-186a588f9437b92c4e76c05fca0123a3-mercedes-benz-vans-opens-new-sprinter-plant-in-north-charleston-amazon-becomes-the-worlds-largest-sprinter-customer; Laura Stevens, *Amazon Orders 20,000 Mercedes-Benz Vans for New Delivery Service*, WALL ST. J. (Sept. 5, 2018), https://www.wsj.com/articles/amazon-orders-20-000-mercedes-benz-vans-for-new-delivery-service-1536157804.

calculates hypothetical values of the Competitive Growth Differential under different market scenarios.

TABLE 3: HYPOTHETICAL VALUES OF THE COMPETITIVE GROWTH DIFFERENTIAL UNDER DIFFERENT MARKET SCENARIOS

Postal Service Market Share in 2017 [A]	**Percentage Change in Postal Service Revenue from 2017 to 2018 [B]**	**Percentage Change in Competitors' Revenue from 2017 to 2018 [C]**	**Difference Between Percentage Change in Postal Service Revenue and Percentage Change in Competitors' Revenue [D] = [B] – [C]**	**Competitive Growth Differential in 2018 [E] = [A] × [D]**
10%	5%	5%	0%	0%
10%	10%	10%	0%	0%
10%	15%	15%	0%	0%
50%	5%	5%	0%	0%
50%	10%	10%	0%	0%
50%	15%	15%	0%	0%

Source: Original analysis.

48. As Table 3 shows, regardless of the magnitude of revenue growth and regardless of the Postal Service's market share in 2017, the Competitive Growth Differential necessarily would be zero if the Postal Service and its competitors experience the same percentage increase in revenue from 2017 to 2018. In other words, the Competitive Growth Differential could be eliminated from the revised appropriate-share formula *even when the Postal Service's market share of competitive postal products is high or when the market for competitive postal products experiences rapid growth*.

49. In sum, the PRC contends that the Competitive Growth Differential would reflect "changes in the market and to competitors, such as overall market growth, firm entry or exit from the market and innovation."[84] That contention is incorrect. Again in this NPRM, the Competitive Growth Differential still would not reflect readily expected—and actually occurring—forms of dynamic changes in the market for competitive postal products.

84. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,954.

C. That the Competitive Growth Differential Accounts for Inflation Does Not Address the Problems Created by Measuring Output in Terms of Revenue Rather Than Volume

50. The PRC acknowledges that "it is true that there are circumstances in which using revenue as a measure of output could be misleading, such as when a firm is attempting to strategically price its products at a low level in order to gain market share."[85] However, the PRC claims that, "because the Competitive Growth Differential accounts for inflation, those circumstances do not apply here."[86] The PRC contends that even in scenarios where price changes cause "revenue to diverge from volume, as long as revenue is measured in real terms, the Competitive Growth Differential would accurately reflect the Postal Service's relative position in the market."[87] This reasoning is incorrect. That the Competitive Growth Differential accounts for inflation does not mean that the variable would account for the potential divergence between revenue and volume.

51. The PRC proposes adjusting revenue using the Consumer Price Index for All Urban Consumers (CPI-U), as published by the Bureau of Labor Statistics (BLS).[88] However, the actual effect of adjusting for inflation will be minimal. The first input to the Competitive Growth Differential for a given fiscal year is the Postal Service's market share in the previous fiscal year.[89] Because that input does not rely on dollar values from multiple time periods, adjusting for inflation will not affect this measure. The second input to the Competitive Growth Differential for a given fiscal year is the difference between the percentage change in the Postal Service's revenue from the previous fiscal year to the current fiscal year and the percentage change in revenue for the

85. *Id.* at 39,947.
86. *Id.*
87. *Id.* at 39,947–48.
88. *Id.* at 39,946.
89. *Id.*

Postal Service's competitors over the same period (that is, $\%\Delta R_{USPS,t} - \%\Delta R_{Competitors,t}$).[90] Consequently, the adjustment for inflation will serve only to decrease the measured difference.

52. Consider the following example. Let $R_{USPS,1}$ be the Postal Service's revenue from competitive products in year 1 and $R_{USPS,2}$ be the Postal Service's revenue from competitive products in year 2. Similarly, let $R_{C,1}$ be the Postal Service's competitors' revenue from competitive products in year 1 and $R_{C,2}$ be the Postal Service's competitors' revenue from competitive products in year 2. Without adjusting for inflation, the difference in the percentage growth for the Postal Service and its competitors is:

$$\%\Delta R_{USPS,2} - \%\Delta R_{C,2} = \frac{R_{USPS,2} - R_{USPS,1}}{R_{USPS,1}} - \frac{R_{C,2} - R_{C,1}}{R_{C,1}}. \tag{10}$$

By rewriting each fraction on the right-hand side of Equation 10 into an equivalent fraction that has a denominator of the least common multiple of the two fractions' denominators ($R_{USPS,1} \times R_{C,1}$), one can express Equation 10 as:

$$= \frac{(R_{USPS,2} \times R_{C,1}) - (R_{USPS,1} \times R_{C,1})}{R_{USPS,1} \times R_{C,1}} - \frac{(R_{USPS,1} \times R_{C,2}) - (R_{USPS,1} \times R_{C,1})}{R_{USPS,1} \times R_{C,1}}. \tag{11}$$

Because the two fractions in Equation 11 now have a common denominator, one can combine the two terms into one fraction:

$$= \frac{(R_{USPS,2} \times R_{C,1}) - \boldsymbol{(R_{USPS,1} \times R_{C,1})} - (R_{USPS,1} \times R_{C,2}) + \boldsymbol{(R_{USPS,1} \times R_{C,1})}}{R_{USPS,1} \times R_{C,1}}. \tag{12}$$

Because the terms in boldface cancel out, one can reduce Equation 12 as follows:

$$= \frac{(R_{USPS,2} \times R_{C,1}) - (R_{USPS,1} \times R_{C,2})}{R_{USPS,1} \times R_{C,1}}. \tag{13}$$

53. Now, consider what happens when the terms are adjusted for inflation, as the PRC proposes in its revised NPRM. Let i be the annual inflation rate from year 1 to year 2. To compare

90. *Id.*

revenues in constant dollars, I multiply revenues in year 1 by $(1 + i)$. The inflation-adjusted formula for the difference in the percentage growth for the Postal Service and its competitors is:

$$(\%\Delta R_{USPS,2} - \%\Delta R_{C,2})_{\text{adjusted}} = \frac{(R_{USPS,2} \times [R_{C,1} \times (1+i)]) - ([R_{USPS,1} \times (1+i)] \times R_{C,2})}{[R_{USPS,1} \times (1+i)] \times [R_{C,1} \times (1+i)]}. \qquad (14)$$

By combining like terms, one can express Equation 14 as:

$$= \frac{(1+i)}{(1+i)^2} \times \frac{(R_{USPS,2} \times R_{C,1}) - (R_{USPS,1} \times R_{C,2})}{R_{USPS,1} \times R_{C,1}}. \qquad (15)$$

One can further simplify the first term of Equation 15:

$$= \frac{1}{(1+i)} \times \frac{(R_{USPS,2} \times R_{C,1}) - (R_{USPS,1} \times R_{C,2})}{R_{USPS,1} \times R_{C,1}}. \qquad (16)$$

As Equation 16 shows, in practice, the PRC's adjustment for inflation will simply serve as a constant $(1 / (1 + i))$ that necessarily *reduces* the value of the non-adjusted difference in the percentage growth for the Postal Service and its competitors, regardless of the value of each input variable.[91] Therefore, any adjustment for inflation will have little practical effect on the relationship between revenue and volume. Simply put, there is no support for the PRC's contention that adjusting for inflation accounts for the effects of a strategic price decrease by the Postal Service's competitors.

54. In addition, the CPI-U measures the change in price of a market basket consisting of the expected monthly purchases of goods and services for a typical urban consumer.[92] Whereas some of those prices surely would reflect an increase or decrease in the prices of competitive postal

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91. I am making the reasonable assumption that the inflation rate will not be negative—that is, that there will not be deflation. From 1958 through July 2018, the United States has experienced deflation, as measured by a decrease in the annual average of the CPI-U, only once, in 2009. *See Consumer Price Index for July 2018, Historical CPI-U*, BUREAU OF LABOR STATISTICS, https://www.bls.gov/cpi/tables/supplemental-files/historical-cpi-u-201807.pdf. With that assumption, $(1 / (1 + i))$ in Equation 16 will always be less than 1, which ensures that the value of the Competitive Growth Differential will always be less than the difference between the percentage growth in the Postal Service's revenue from competitive postal products and the percentage growth in the revenue of the Postal Service's competitors.

92. *Consumer Price Index, Frequently Asked Questions (FAQs)*, BUREAU OF LABOR STATISTICS, https://www.bls.gov/cpi/questions-and-answers.htm.

products, many components of the CPI-U would not vary significantly with those prices. For example, as of July 2018, 8.15 percent of the value of the CPI-U is determined by energy prices, such as fuel oil, gasoline, and electricity,[93] and 32.7 percent is determined by the cost of shelter (rent or owners' equivalent rent).[94] It is unlikely that changes in the prices of competitive postal products strongly affect prices in any of these industries. That is, the price of electricity or the price of rent is unlikely to depend on parcel shipping rates. Consequently, inflation as measured by the CPI-U will not fully capture a strategic decrease in price by the Postal Service's competitors.

55. In cases where pricing decisions cause "revenue to diverge from volume" for competitive postal products, measuring revenue in real terms would do nothing to change that fact.[95] As I explain in Part II.B, the Competitive Growth Differential is a modified version of the "Competitive Market Output" component in the PRC's original formula, which simply measured the percentage change in total revenue in the market for competitive postal products, as defined by the sum of the Postal Service's revenue from competitive postal products and the revenue of the Postal Service's competitors.

56. In sum, although adjusting for inflation would have been an important improvement to the Competitive Market Output (in which inflation could have increased the appropriate share, even holding all other inputs constant), the inflation adjustment proposed in this rulemaking docket serves little purpose in calculating the Competitive Growth Differential and does not offer the benefits that the PRC claims.

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93. Press Release, Bureau of Labor Statistics, Consumer Price Index—July 2018, at 8 tbl.1 (Aug. 10, 2018), https://www.bls.gov/news.release/pdf/cpi.pdf.

94. *Id.*

95. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,947.

57. Finally, as I explained in my declaration responding to the original NPRM, if demand for competitive products as a whole is inelastic, price and total revenue would vary directly.[96] In that case, a decrease in price for competitive products would lead to (1) a decrease in total revenue from competitive products, (2) an increase in quantity demanded of competitive products, and (3) an increase in total costs of competitive products (as a result of an increase in the quantity sold of competitive products).[97] That the revised formula is adjusted for inflation does not address my concern that the costs of providing competitive products correlate more closely with competitive volume than with competitive revenue and that, in certain circumstances, a decrease in revenue from competitive products will not necessarily correspond to a decrease in costs for competitive products. Similarly, an increase in revenue from competitive products will not necessarily correspond to an increase in costs for competitive products.

V. THE PRC FAILS TO JUSTIFY ITS DECISION TO WEIGHT THE COMPETITIVE CONTRIBUTION MARGIN AND THE COMPETITIVE GROWTH DIFFERENTIAL EQUALLY IN ITS REVISED FORMULA

58. The PRC's revised formula continues to weight the Competitive Contribution Margin and the Competitive Growth Differential equally.[98] I explained in my comments to the original NPRM that, from an economic perspective, the PRC's decision to weight the two components equally is utterly arbitrary.[99] The PRC does not analyze, for example, whether the two components are endogenous, whether one component is more highly correlated with the Postal Service's costs attributable to competitive products than the other, or how the appropriate-share calculation would evolve under different weighting scenarios. In its revised formula in its revised

96. *See* Sidak Declaration in Response to Original NPRM, *supra* note 16, at 36.
97. *See* N. GREGORY MANKIW, PRINCIPLES OF ECONOMICS 96 (Cengage 8th ed. 2018).
98. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,951.
99. *See* Sidak Declaration in Response to Original NPRM, *supra* note 16, at 39.

NPRM, the PRC attempts but fails to provide both legal and economic justifications for equally weighting the Competitive Contribution Margin and the Competitive Growth Differential.

A. There Is No Legal Requirement That the PRC Weight the Competitive Contribution Margin and the Competitive Growth Differential Equally

59. The PRC argues that equal weighting of the two components is appropriate "from a legal perspective," because such equal weighting "is based on the required consideration of the statutory criteria set forth in 39 U.S.C. 3633(b),"[100] which directs the PRC to consider, among other things, the "prevailing competitive conditions in the market."[101] The PRC argues that, because "neither component is more significant than the other in capturing the criteria set forth in 39 U.S.C. 3633(b), the Commission finds it is appropriate to weight the components equally."[102]

60. The PRC's reasoning is unworthy of a federal regulatory agency. No provision in section 3633(b) of Title 39 compels the PRC to consider *only* a measure of the Postal Service's market power (the Competitive Contribution Margin) and a measure of the Postal Service's market position (the Competitive Growth Differential) in analyzing prevailing competitive conditions, nor does any provision in section 3633(b) compel the PRC to weight those two factors equally. By that logic, there should be a third term in the revised formula for "all relevant circumstances,"[103] with a weight equal to that of each of the other two terms. In fact, the statute *requires* consideration of "all relevant circumstances," yet the PRC appears not to have examined any circumstance other than the two explicitly stated factors—that is, "prevailing competitive conditions in the market, and the degree to which any costs are uniquely or disproportionately associated with any competitive products."[104]

100. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,951.
101. 39 U.S.C. § 3633(b).
102. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,951.
103. 39 U.S.C. § 3633(b).
104. *Id.*

61. In the past, the PRC has observed that additional circumstances *are* relevant to setting the appropriate share, including "the lack of evidence of a Postal Service competitive advantage; the market share analysis; changes to the market and competitors; historical competitive contribution levels; changes to competitive product offerings and the mail mix; and uncertainties."[105] The PRC's argument that it is appropriate "from a legal perspective" to weight the Competitive Contribution Margin and the Competitive Growth Differential equally simply because the two components "play critical and *equal* roles in supporting the formula's ability to capture the criteria set forth in 39 U.S.C. 3633(b)"[106] assumes the answer to the question rather than provides a reasoned explanation for the PRC's preferred answer. It is highly unlikely that the drafters of the PAEA, in listing but two examples of "all relevant circumstances," foresaw—or intended to define—the elements of an appropriate share formula, including the magnitude of the coefficients in the formula. Statutory language, in listing a nonexclusive or exclusive list of factors, implies 1.0 as the coefficient to the listed items, unless otherwise specified.

B. The PRC Is Incorrect in Arguing That Economic Principles Justify Weighting the Competitive Contribution Margin and the Competitive Growth Differential Equally

62. The PRC also contends that its decision to weight the two components equally is also correct "from an economic perspective."[107] In particular, it says that, in the context of survey analysis and regression analysis, the practice of assigning weights at the variable or observation level corrects imperfections in survey analysis and normalizes errors in regression analysis.[108] According to the PRC, such weighting "would be artificial" in the context of its revised formula.[109]

105. PRC, Order Reviewing Appropriate Share in RM2012-3, *supra* note 33, at 24.
106. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,951 (emphasis added).
107. *Id.*
108. *Id.*
109. *Id.* at 39,952.

Furthermore, the PRC says that it would be inappropriate to assign weights in its revised formula because the two components are "economically related"—that is, the two components "rely in part on a shared input, the Postal Service's competitive product revenue."[110] Consequently, according to the PRC, assigning weights to the two components supposedly would "diminish the accuracy of the formula by changing how the components interact with each other."[111]

63. Nonsense. That weighting is used in survey or regression analysis is irrelevant to whether it is appropriate to equally weight the two components in the PRC's proposed formula. Yet the PRC (1) presents a weighting scheme used in econometric or statistical theory, (2) concludes that it cannot implement that scheme in the context of the appropriate-share formula, and therefore (3) finds that it is appropriate to weight the two components equally.[112] The PRC's reasoning is akin to a chef, having mislaid her cookbook, deciding that the appropriate way to make a chocolate soufflé is to use equal parts of egg yolks, egg whites, chocolate, sugar, and water.[113]

64. The PRC's reference to the use of weights in survey analysis and regression analysis in fact reveals its startling lack of economic expertise, for the proposed formula-based approach *does not rely on any econometric or statistical analysis*. There is also no economic justification for the PRC's assumption that, if a particular weighting method is unavailable, the next-best alternative is to apply no rigorous weighting method at all. At a minimum, the PRC's argument exemplifies the problem of "making the perfect the enemy of the good," as the PRC

110. *Id.*
111. *Id.*
112. *Id.* at 39,951–52.
113. The ingredients of a chocolate soufflé in fact are not equally weighted. *See, e.g.*, HAROLD MCGEE, ON FOOD AND COOKING: THE SCIENCE AND LORE OF THE KITCHEN 109–13 (Scribner rev. ed. 2004); *Chocolate Souffle*, MARTHA STEWART, https://www.marthastewart.com/868486/chocolate-souffle.

rejects the application of any weighting method altogether because what the PRC perceives to be the optimal weighting technique (that is, a weighting method used in survey analysis or econometrics) is unavailable.[114]

65. Indeed, the practice of assigning weights to different components of a formula is common outside the context of a survey or regression analysis. For example, Ramsey pricing is a well-known application of price theory that assigns weights to different inputs (for example, price-cost margins) to satisfy a constraint (for example, a regulated firm's break-even constraint).[115] Similarly, weights can be used in the context of theoretical analysis of cost allocation or multiproduct pricing.[116] Weighted objective functions were foundational to the early study of limit pricing, where a firm might weight expected short-run and long-run profits.[117] When multiple components are combined into a single formula (such as in Ramsey pricing) or into a single objective function (such as in early limit pricing models), some weighting of the components is necessary to solve the problem at hand.

66. In addition, the PRC cannot argue that adopting a weighting method would "diminish the accuracy of the [appropriate-share] formula" because such an argument would imply that there exists a single correct measure of the Postal Service's appropriate-share requirement that the PRC's formula must attempt to capture. But if there exists a single objective solution to the

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114. *See* Harold Demsetz, *Information and Efficiency: Another Viewpoint*, 12 J.L. & ECON. 1 (1969).

115. *See* William J. Baumol & David F. Bradford, *Optimal Departures from Marginal Cost Pricing*, 60 AM. ECON. REV. 265 (1970); Mark Boiteux, *On the Management of Public Monopolies Subject to Budgetary Constraints*, 3 J. ECON. THEORY 219 (1971); Frank P. Ramsey, *A Contribution to the Theory of Taxation*, 37 ECON. J. 47 (1927). For analysis of Ramsey pricing in Postal regulation, see David E.M. Sappington & J. Gregory Sidak, *Incentives for Anticompetitive Behavior by Public Enterprises*, 22 REV. INDUS. ORG. 183 (2003), https://www.criterioneconomics.com/docs/incentives_for_anticompetitive_behavior_by_public_enterprises1.pdf; David E.M. Sappington & J. Gregory Sidak, *Competition Law for State-Owned Enterprises*, 71 ANTITRUST L.J. 479 (2003), https://www.criterioneconomics.com/docs/competition_law_for_state-owned_enterprises-11.pdf.

116. *See, e.g.*, Richard P. McLean & William W. Sharkey, *Weighted Aumann-Shapley Pricing*, 27 INT'L J. GAME THEORY 511 (1998).

117. *See, e.g.*, Morton I. Kamien & Nancy L. Schwartz, *Limit Pricing and Uncertain Entry*, 39 ECONOMETRICA 441 (1971); John R. Hicks, *The Process of Imperfect Competition*, 6 OXFORD ECON. PAPERS 41 (1954).

appropriate-share inquiry, then how can the PRC propose two different formulae that identify a different set of appropriate-share requirements? In contrast, if there is not an objectively correct solution to the Postal Service's appropriate-share requirement (which more likely is the case), then how can any one formula be more "accurate" than another in calculating the Postal Service's appropriate-share requirement? The statute does not require the use of a formula to determine the appropriate share. If the PRC cannot define an objective formula, as opposed to a subjective one, then perhaps the problem is the Commission's attempt to define a formula in the first place.

67. Finally, the PRC fails to recognize that, by including only the Competitive Contribution Margin and the Competitive Growth Differential in its revised formula, the PRC actually has assigned arbitrary weights to those components. That is, the PRC has assigned equal weights to the Competitive Contribution Margin and the Competitive Growth Differential and has assigned a weight of *zero* to all other potential input variables ("all other relevant circumstances") to the formula. The PRC offers no valid economic justification for its decision to adopt such a weighting scheme.

68. In sum, the PRC attempts—but fails—to provide a coherent, much less rigorous, economic justification for its decision to weight the Competitive Contribution Margin and the Competitive Growth Differential equally in its revised formula.

C. The PRC Could Improve Its Revised Formula by Assigning Zero Weight to the Competitive Growth Differential

69. The PRC never answers a fundamental question: Why would the revenues of the Postal Service's competitors be a necessary, or even relevant, input for determining the proper contribution that competitive postal products should make to the Postal Service's recovery of its institutional (or common) costs? Moreover, as I explained in Part IV, the Competitive Growth Differential is a flawed measure of the Postal Service's relative market position, because it would

fail to reflect dynamic changes in the market for competitive postal products, and because it would fail to address the problems created by measuring total output in terms of revenue rather than volume. Consequently, there is no logical rationale for the inclusion of that component in the PRC's appropriate-share formula.

70. The PRC might be better off using an alternative variable to the Competitive Growth Differential. The Postal Service's relative position in the market for competitive postal products is not directly relevant to the Postal Service's need or ability to cover institutional costs through its operations generating competitive postal products. A more direct or important measure of the Postal Service's need or ability to cover institutional costs would be based on the Postal Service's attributable costs from competitive postal products as a percentage of total attributable costs for all postal products, including market-dominant products.[118] Table 4 reports those percentage values for fiscal years 2008 through 2017.

118. The PRC says that "the initial 5.5 percent appropriate share was *reasonably based on historical contribution*" to institutional costs from competitive products. PRC, Revised NPRM in RM2017-1, *supra* note 17, at 39,950 (emphasis added). Attributable costs would more accurately reflect the relative allocation of the Postal Service's costs between market-dominant postal products and competitive postal products than would institutional costs, which, by definition, are common costs across all products (market-dominant products and competitive products alike) that the Postal Service claims it cannot attribute to any single product. Consequently, it would be equally (if not more) "reasonable" for the PRC to consider a measure reflecting the historical contribution to the Postal Service's total attributable costs from competitive postal products.

TABLE 4: THE POSTAL SERVICE'S ATTRIBUTABLE COSTS FOR COMPETITIVE POSTAL PRODUCTS AS A PERCENTAGE OF TOTAL ATTRIBUTABLE COSTS, FISCAL YEARS 2008–2017

Fiscal Year	Attributable Costs for Competitive Products ($, Million) [A]	Total Attributable Costs ($, Million) [B]	Attributable Costs for Competitive Products as a Percentage of Total Attributable Costs [C] = [A] ÷ [B]
2008	6,602.1	45,637.6	14.47%
2009	6,174.8	43,005.2	14.36%
2010	6,256.9	41576.2	15.05%
2011	6,680	41251.8	16.19%
2012	8,383.3	40528.1	20.69%
2013	9,881.1	39169.5	25.23%
2014	10,969.9	39174.9	28.00%
2015	11,913.4	40196.3	29.64%
2016	12,496.2	40757.6	30.66%
2017	13,538.1	41564.1	32.57%

Sources: I obtained [A] and [B] from U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2008, at 2 (2008), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2008.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2009, at 6 (2009), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2009.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2010, at 4 (2010), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2010.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2011, at 3 (2011), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2011.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2012, at 3 (2012), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2012.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2013, at 3 (2013), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2013.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2014, tab 4 ("Cost3") (2011), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2014.xls; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2015, at 3 (2015), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2015.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2016, at 3 (2016), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2016.pdf; U.S. Postal Service, Public Cost and Revenue Analysis Fiscal Year 2017, at 3 (2017), http://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2017.pdf.

71. As Table 4 shows, attributable costs from competitive postal products as a percentage of total attributable costs have more than doubled between fiscal year 2008 and fiscal year 2017. Such evidence shows that competitive postal products have become an increasingly important part of the Postal Service's business. Because a measure of attributable costs from competitive postal products as a percentage of total attributable costs would, at a minimum, reflect

the role that competitive postal products actually play within the Postal Service's operations, the PRC should consider replacing or revising the Competitive Growth Differential with a metric accounting for the contribution that competitive postal products make to the generation of the Postal Service's total attributable costs.

72. Including such a metric would also be more relevant than the Competitive Contribution Margin in determining the Postal Service's appropriate-share requirement. Although the PRC's Competitive Contribution Margin includes a term for attributable costs for competitive postal products, the Competitive Contribution Margin fails to reflect the *relative* importance of competitive products to the Postal Service's overall business. The Competitive Contribution Margin is a percentage of the Postal Service's revenue from competitive postal products. In contrast, the appropriate share is, by definition, a percentage of the Postal Service's institutional costs from all postal products—market-dominant products and competitive products alike. The two variables are linked by little more than the PRC's hand waving.[119]

VI. CONCLUSION

73. The Commission should not adopt the revised NPRM's formula-based approach to calculating the appropriate share of institutional costs that the Postal Service must recover from its sale of competitive products.

119. This insight also highlights why attributable costs from competitive products are artificial. If the network is moving letters and competitive products, then the resulting costs are joint costs and are put into the institutional-cost bucket as if they are fixed costs, when in fact many are operating costs. Neither the Commission nor the Postal Service makes any real effort in the cost-attribution methodology to show how much of institutional costs comes from competitive products in the form of joint costs.

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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.

Respectfully submitted,

J. Gregory Sidak

Executed: September 12, 2018.

QUALIFICATIONS

74. My name is J. Gregory Sidak. I am the chairman of Criterion Economics, LLC in Washington, D.C., which I founded in 1999. I am also a founder of the *Journal of Competition Law & Economics*, published quarterly by the Oxford University Press since 2006, as well as the publisher and editor of the *Criterion Journal on Innovation*, which I launched in 2016. Since 1996, I have testified as a qualified expert economic witness for parties engaged in complex litigation, administrative proceedings, and international commercial arbitration. In addition, I twice served as retired Judge Richard Posner's court-appointed neutral economic expert pursuant to Federal Rule of Evidence 706. I have researched and written extensively about postal economics and state-owned enterprises since the early 1990s.[120]

75. I have worked at the intersection of law and economics for 37 years. I earned A.B. (1977) and A.M. (1981) degrees in economics and a J.D. (1981), all from Stanford University. While an undergraduate student, I received the departmental prize for best honors thesis in economics at Stanford in 1977. While a graduate student, I was a member of the *Stanford Law Review* and a research assistant at the National Bureau of Economic Research (NBER) and the

120. *See* SIDAK & SPULBER, *supra* note 1; J. Gregory Sidak, *The Economics of Mail Delivery: Commentary*, *in* GOVERNING THE POSTAL SERVICE 14 (J. Gregory Sidak ed., AEI Press 1994), http://www.aei.org/wp-content/uploads/2014/07/-governing-the-postal-service_163321145577.pdf; Sidak, *Abolishing the Letter-Box Monopoly*, *supra* note 1; J. Gregory Sidak, *Maximizing the U.S. Postal Service's Profits from Competitive Products*, 11 J. COMPETITION L. & ECON. 617 (2015), https://www.criterioneconomics.com/docs/maximizing-us-postal-service-profits-from-competitive-products.pdf; Damien Geradin & J. Gregory Sidak, *The Future of the Postal Monopoly: American and European Perspectives After the Presidential Commission and* Flamingo Industries, 28 WORLD COMPETITION 161 (2005), https://www.criterioneconomics.com/docs/the_future_of_the_postal_monopoly1.pdf; Sappington & Sidak, *Competition Law for State-Owned Enterprises*, *supra* note 115; Sappington & Sidak, *Incentives for Anticompetitive Behavior by Public Enterprises*, *supra* note 115; J. Gregory Sidak & Daniel F. Spulber, *Monopoly and the Mandate of Canada Post*, 14 YALE J. ON REG. 1 (1997), https://www.criterioneconomics.com/docs/monopoly_and_the_mandate_of_canada_post1.pdf; J. Gregory Sidak, *Competition and the Postal Service*, AMERICAN ENTERPRISE, vol. 7, no. 3, at 74 (May/June 1996); J. Gregory Sidak, *Post Office Monopoly: Unfair Market Practice*, NAT'L L.J., Oct. 23, 1995, at A23.

Hoover Institution, where I co-authored an econometric study on antitrust enforcement published in one of the leading scholarly journals in economics, the *Journal of Political Economy*.[121]

76. I have served in the federal government on three occasions. From 1981 to 1982, I was Judge Posner's first law clerk on the U.S. Court of Appeals for the Seventh Circuit. From 1986 to 1987, I was Senior Counsel and Economist to the Council of Economic Advisers (CEA) in the Executive Office of the President. There, I drafted portions of the *Economic Report of the President*, including President Reagan's introduction to the 1987 *Report*, and I represented the CEA in working group meetings of the Economic Policy Council concerning regulatory, antitrust, intellectual property, and corporate governance policy. From 1987 to 1989, I was Deputy General Counsel of the Federal Communications Commission (FCC).

77. After leaving government, I practiced law with Covington & Burling in Washington, D.C. on antitrust matters and on federal administrative, litigation, and appellate matters concerning telecommunications, mail delivery, transportation, and other regulated industries. Earlier in my career, before entering the Reagan administration, I worked as a management consultant with the Boston Consulting Group and practiced law with O'Melveny & Myers.

78. I have held several academic appointments. From 2009 to 2014, I was the inaugural holder of the Ronald Coase Professorship in Law and Economics at Tilburg University in the Netherlands. From 1992 through 2005, I was a resident scholar at the American Enterprise Institute for Public Policy Research (AEI), where I directed AEI's Studies in Telecommunications Deregulation and held the F.K. Weyerhaeuser Chair in Law and Economics. From 1993 to 1999, while at AEI, I was also a Senior Lecturer at the Yale School of Management, where I taught

121. Michael Kent Block, Frederick Carl Nold & Joseph Gregory Sidak, *The Deterrent Effect of Antitrust Enforcement*, 89 J. POL. ECON. 429 (1981).

courses on regulation and competitive strategy in the telecommunications sector with the late Professor Paul W. MacAvoy. From 2005 to 2007, I was a Visiting Professor of Law at Georgetown University Law Center, where I taught courses on telecommunications regulation and antitrust law.

79. Since 1980, I have published six books and approximately 150 articles in scholarly journals and compilations. My writings have been downloaded approximately 65,000 times from the Social Science Research Network. My most cited books are *Deregulatory Takings and the Regulatory Contract: The Competitive Transformation of Network Industries in the United States* (Cambridge University Press 1997), with Professor Daniel F. Spulber, and *Toward Competition in Local Telephony* (MIT Press and AEI Press 1994), with the late Professor William J. Baumol. My scholarly articles have appeared in such journals as the *American Economic Association Papers and Proceedings*, the *Columbia Law Review*, the *Harvard International Law Journal*, the *Journal of Political Economy*, the *New York University Law Review*, the *Stanford Law Review*, the *University of Chicago Law Review*, and the *Yale Law Journal*. My essays have appeared in newspapers and business periodicals, including the *New York Times* and the *Wall Street Journal.*

80. My scholarly writings have been cited by the Supreme Court of the United States, the Supreme Court of Canada, the European Commission, the U.S. Court of Appeals for the D.C. Circuit, other federal appellate and district courts, state supreme courts, federal and state regulatory commissions, and the Office of Legal Counsel of the U.S. Department of Justice. American jurists across the political spectrum have cited my writings; they include Stephen Breyer, Frank Easterbrook, Douglas Ginsburg, Raymond Randolph, Stephen Reinhardt, Laurence Silberman, David Souter, and Stephen Williams. I have testified before committees of the U.S. Congress on multiple occasions.

81. Since 1993, I have served clients as a consulting or testifying economic expert in matters in the Americas, Europe, Asia, and the Pacific. In matters of public record, those clients have included América Móvil, ATCO Group, AT&T (including its formerly separate companies: AirTouch, Ameritech, BellSouth, Pacific Bell, and SBC), Bell Canada, the Bermuda Telephone Company, British Telecom, Cable & Wireless, CTIA—The Wireless Association, delfortgroup, Deutsche Telekom, Disney, Edison Electric Institute, eircom, the Entertainment Software Association, Equities First Holdings, Ericsson, ESPN, Exelon, First Data, France Telecom, Google, Hitachi, the Hong Kong Telephone Company, KPN, Microsoft, the National Association of Broadcasters, Nest Labs, Netlist, the Newspaper Association of America, Nippon Telegraph & Telephone, NTT DoCoMo, Panasonic, PECO Energy, Portugal Telecom, Qualcomm, Quicken Loans, the Recording Industry Association of America, Saint Lawrence Communications, Siemens, SoundExchange, Southern California Gas, the Tata Group, Telecom Corporation of New Zealand, Teléfonos de México, Telstra, TransData, The United Mexican States, United Parcel Service (UPS), the U.S. Telecom Association, U S West, Verizon (including its formerly separate companies: Bell Atlantic, GTE, and NYNEX), Verizon Wireless, Vodafone, and Whirlpool. I have also served as a consultant to the Antitrust Division of the U.S. Department of Justice and the Competition Bureau in Canada. In addition to performing these consulting engagements, I served from 2002 to 2006 as a member of the U.S. advisory board for NTT DoCoMo, Japan's largest mobile network operator. In that capacity, I briefed DoCoMo's chairman semiannually on the business implications of emerging regulatory and antitrust trends pertinent to mobile communications.