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GREEN DELIVERIES: Carbon-Cutting Policies for the Online Retail Age

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Since the start of the COVID-19 pandemic, online shopping or "e-commerce" has drastically accelerated.¹ While e-commerce has played an essential role in adapting to the pandemic, e-commerce has resulted in alarming negative environmental impacts.² In the first six months of 2019 e-commerce grew 12.7%, comparatively in the first six months of 2020—after the pandemic began—e-commerce increased 30.1%.³ E-commerce has provided many benefits to consumers including, increased buying options, expedited shipping, and it requires no interaction with other people.⁴ Consumers are now accustomed to the convenience of expedited shipping, expecting packages to arrive on the consumers doorstep within a day or even a few hours after ordering.⁵ Not only do consumers expect expedited shipping, but they expect it to be available for "free." Many e-commerce businesses have bended to our expectations and now offer one- or two-day free shipping options.⁶ But, "free shipping" is not free. While the delivery of an item doesn't directly cost the consumer any money at that moment, there are other external

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¹Fareeha Ali, *Charts: How the Coronavirus is Changing Ecommerce*, DIGITAL COMMERCE 360 (Aug. 25, 2020), https://www.digitalcommerce360.com/2020/08/25/ecommerce-during-coronavirus-pandemic-in-charts/.

² Mary K. Pratt, *Amazon's Environmental Impact Delivers Climate Change Concerns*, SEARCHAWS (Feb. 4, 2020), https://depts.washington.edu/sctlctr/news-events/in-the-news/amazons-environmental-impact-delivers-climate-change-concerns.

³ *Id.*, ("In the first six months of the year, consumers spent \$347.26 billion online with U.S. retailers, up 30.1% from \$266.84 billion for the same period in 2019, according to the latest Digital Commerce 360 analysis of U.S.

Department of Commerce data. Comparatively, ecommerce sales during the first half of 2019 grew just 12.7% year over year.").

⁴ Miguel Jaller & Anmol Pahwa, *Evaluating the Environmental Impacts of Online Shopping: A Behavioral and Transportation Approach*, 80 TRANSPORTATION RESEARCH PART D: TRANSPORT AND ENVIRONMENT 1, 10 (2020). ⁵ *Id.*

⁶ Miguel Jaller & Anmol Pahwa, *Evaluating the Environmental Impacts of Online Shopping: A Behavioral and Transportation Approach*, Science Direct at 10 (2020).

costs involved.⁷ With every delivery Green House Gas (GHG) emissions and waste is produced. Amazon exclusively "emits nearly as much carbon dioxide as a small country."⁸ But who pays for all of the GHG emissions? For the waste that is left to fill countless landfills which may take hundreds of years to decompose?⁹ The answer is no one. No one physically pays any money for these negative externalities. The reality is every person, animal, plant, and living thing pays for the free shipping.

Some e-commerce businesses have chosen to address the environmental implications of their businesses by publicly promising to incorporate more sustainable practices. Amazon is among the businesses that has promised to be more sustainable, and to meet certain GHG emission goals. While promises for e-commerce businesses are encouraging, they are just that, promises. The question is will self-regulation by e-commerce businesses be enough to address the environmental crisis? Likely not. Despite Amazon's sustainability promises and ambitious goals, the company still produced 15% more CO2 in 2019 than 2018.¹⁰

E-commerce retailers are incentivizing consumers to rely on online shopping behaviors that are negatively impacting both the environment¹¹ and traditional brick-and-mortar stores.¹² Yet, neither the retailers nor the consumers are paying for the negative externalities their actions are imposing on the world. In the wake of these rapid global changes, policymakers should consider finding ways to compel online shoppers and sellers to internalize more of the environmental costs of their activities.

Policymakers could change consumer behavior by imposing a Pigouvian tax on expedited deliveries to consumers. The tax should be implemented at a rate which reduces GHG emissions and waste to the "point where the marginal benefits of internalization equal the marginal costs of abatement."¹³ This would incentivize consumers to chose standard shipping methods, and thus decrease the carbon footprint of their deliveries.

The e-commerce era has arrived, and without the proper incentives and initiatives in place the environmental crisis will proceed. President Biden has already taken steps to address climate change, hopefully more actions will be taken to minimize our global impacts, and to protect future generations.¹⁴

 ⁷ Emine Saner, *Delivery disaster: The Hidden Environmental Cost of Your Online Shopping*, THE GUARDIAN (Feb. 17, 2020), https://www.theguardian.com/news/shortcuts/2020/feb/17/hidden-costs-of-online-delivery-environment.
⁸ Id.

⁹ Mirac Tapan, *Nature can't do it all: How long does it take for our waste to decompose?*, DAILY SABAH (Jan. 23, 2019), https://www.dailysabah.com/feature/2019/01/23/nature-cant-do-it-all-how-long-does-it-take-for-our-waste-to-decompose.

¹⁰ Joseph Pisani, *Despite Green Pledges, Amazon's Carbon Footprint Grew 15%*, AP NEWS (June 23, 2020), https://apnews.com/article/95986c4ba779f1d35ac4ca2afdd745c3.

¹¹ Ruth Macgilp, *What Does Online Shopping During Lockdown Mean for the Environment?*, ECO AGE (Dec. 5, 2020), <u>https://eco-age.com/magazine/online-shopping-impact-on-environment</u>.

¹² Nikaela Jacko Redd & Lutisha S. Vickerie, *The Rise and Fall of Brick and Mortar Retail: The Impact of Emerging Technologies and Executive Choices on Business Failure*, 17 J. INT'L BUS. & L. 127, 141 (2017).

¹³ Susana Ferreira, Simon McDonnell, & Frank Convery, *The Most Popular Tax in Europe? Lessons from the Irish Plastic Bags Levy*, 38 Environmental and Resource Economics 1-11, 1 (2007).

¹⁴ Boral Davenport & Lisa Friedman, *Biden Cancels Keystone XL Pipeline and Rejoins Paris Agreement*, THE NEW YORK TIMES (Jan. 21, 2021), https://www.nytimes.com/2021/01/20/climate/biden-paris-climate-agreement.html.