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U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Commerce, Manufacturing, and Trade

"Daylight and Destinations: Examining Time, Travel, and Tourism"

Chairmen Guthrie and Bilirakis, Ranking Member Pallone, and Members of the Subcommittee, thank you for your invitation to testify at this hearing. My name is Tyler Kleppe, and I am the EY Associate Professor of Accounting at the University of Kentucky. Prior to entering academia, I worked in professional practice for several years at a public accounting firm. My research covers several topics related to capital markets and financial regulation. Of particular interest to the Subcommittee and this hearing, I have recently published coauthored research that examines the effects of daylight saving time (DST) phasing on capital market participants. I am excited to share some of the insights from this research with you today.

Before I discuss this research in detail, I want to make it clear that my testimony is based on my expertise as a researcher interested in the dynamics of U.S. capital markets. I am not an expert on the psychological or psychophysical impacts of DST phasing. That said, my initial interest in studying the effects of DST phasing on capital market participants was motivated by the considerable evidence in other disciplines indicating that DST adjustments negatively impact individuals and yield various unintended consequences, such as increased traffic and workplace accidents, atypically punitive judicial sentencing, and higher frequencies of heart attacks and brain dysfunction.[1] My research seeks to address whether these negative impacts spill over to another

[1] Hicks, R. A., Lindseth, K., & Hawkins, J. (1983). Daylight saving-time changes increase traffic accidents. *Perceptual and Motor Skills*, 56(1), 64-66.

important but underexplored setting—public equity markets. Understanding how DST phasing impacts U.S. financial markets is crucial for understanding the broader economic implications of DST policy and should be of interest to the Subcommittee.

My primary work in this area is titled "The Effects of Daylight Saving Time Adjustments on Investor Information Processing" and is published in *The Accounting Review*, one of the leading accounting research journals.[2] This study is coauthored with Andrew Pierce at Georgia State University, Zac Wiebe at the University of Arkansas, and Teri Yohn at Emory University. In this study, we examine the effects of "spring forward" DST advances on U.S. investors' processing of corporate earnings news. We focus on DST advances in March because these time shifts occur during the spring "earnings season," a period when many public companies disclose value-relevant earnings information to investors and other capital market stakeholders. Given our interest in understanding how DST adjustments affect investors' decision-making, this is an ideal setting to examine our research question. Using quarterly earnings announcements made by U.S. companies during the current DST regime under the Energy Policy Act of 2005 (specifically, 2007 through 2018), we examine investors' price responsiveness to earnings news. Most of the time, a

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Coren, S. (1996). Daylight savings time and traffic accidents. *New England Journal of Medicine*, 334(14), 924-925.
Coren, S. (1996). Accidental death and the shift to daylight savings time. *Perceptual and Motor Skills*, 83(3), 921-922.
Varughese, J., & Allen, R. P. (2001). Fatal accidents following changes in daylight savings time: the American experience. *Sleep Medicine*, 2(1), 31-36.
Barnes, C. M., & Wagner, D. T. (2009). Changing to daylight saving time cuts into sleep and increases workplace injuries. *Journal of Applied Psychology*, 94(5), 1305.
Cho, K., Barnes, C. M., & Guanara, C. L. (2017). Sleepy punishers are harsh punishers: Daylight saving time and legal sentences. *Psychological Science*, 28(2), 242-247.
Sandhu, A., Seth, M., & Gurm, H. S. (2014). Daylight savings time and myocardial infarction. *Open Heart*, 1(1), e000019.
Malow, B. A., Veatch, O. J., & Bagai, K. (2020). Are daylight saving time changes bad for the brain?. *JAMA Neurology*, 77(1), 9-10.

[2] Kleppe, T. J., Pierce, A. T., Wiebe, Z., & Yohn, T. L. (2024). The effects of daylight saving time adjustments on investor information processing. *The Accounting Review*, 99(2), 249-277.

company's earnings maps directly into the company's value, and, consistent with this, decades of research in accounting and finance have shown that earnings news impacts stock prices. This finding is so robust that it is a classical test of market efficiency in the capital markets literature—that is, when stock prices are less responsive to earnings news, this is viewed as evidence of reduced market efficiency.[3] Consistent with DST advances dampening the investor response to earnings news, we observe significantly lower price responsiveness for earnings announcements made in the week following a DST advance, relative to other spring earnings announcements. This finding is consistent with DST adjustments inducing cognitive impairment such that investors are slower to process information contained in earnings announcements. We also find that this effect is stronger among companies with more retail investors, which suggests that these investors may be more susceptible to the information processing costs imposed by DST advances.

Our study adds to our collective understanding of how DST adjustments impact capital market participants and highlights an economic cost of DST phasing. Market efficiency is crucial to a well-functioning financial system, and thus we view our evidence that DST advances impair the efficiency of U.S. equity markets to be meaningful and relevant to policymakers. That said, we acknowledge that we are only one of several academic studies that examine the impacts of DST phasing. Thus, I believe it is prudent to consider the evidence as a whole in making any policy decisions as opposed to focusing on any one study in isolation. Moreover, our evidence cannot speak directly to any potential changes in investor information processing costs associated with remaining on daylight time or standard time permanently, which is a common challenge in the

[3] This approach in measuring investors' price responsiveness to earnings news is well-established in the disclosure processing literature. For additional details see: Blankespoor, E., deHaan, E., & Marinovic, I. (2020). Disclosure processing costs, investors' information choice, and equity market outcomes: A review. *Journal of Accounting and Economics*, 70(2-3), 101344.

academic literature since most Americans have been experiencing biannual time shifts for several decades. As such, the intent of our study is not to speak to the optimality of different DST policies but rather to provide evidence that legislators can consider in weighing the costs and benefits of alternative policies.

I sincerely appreciate the opportunity to testify to the Subcommittee, and I appreciate the Subcommittee's interest in this issue. I am happy to answer any questions to the best of my ability.