## Engineer

## Strong infrastructure to drive retail success: Investment is needed to prepare for the future



Nicholas Golon TFMoran

"Roads... where we're going, we don't need roads." This is what Dr. Emmett Brown said to Marty McFly in the movie "Back to the Future" before they climbed into the DeLorean time machine heading for October 21, 2015. Although many of us dream about a world in which our vehicles can abandon the confines of pavement and gravel in favor of less limiting boundaries in the sky, it would appear we will be waiting a bit longer than "Doc" originally envisioned... Based on the American Society of Civil Engineers

(ASCE), America's Infrastructure scores a D+ grade, showing we need to focus on the ground below us before dreaming about the skies above us to solve our crumbling infrastructure problems.

The modernization and maintenance of infrastructure is paramount to the retail industry. The lack of investment in infrastructure on both the federal and local level represents a significant challenge to an industry that relies on transportation systems to move its consumers, workers and products to and from their developments. And the reliance on infrastructure does not stop at transportation: efficient sources for energy generation and distribution, provisions for safe drinking water, and adequacy of sewer treatment systems factor in the success of the industry.

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ASCE's 2016 publication, "Failure to Act: Closing the Infrastructure Investment Gap for America's Economic Future," says that to close the \$2 trillion 10-vear investment gap, meet future needs, and restore our global competitive advantage, we must increase investment from all levels of government and the private sector from 2.5%

to 3.5% of U.S. Gross Domestic Product (GDP) by 2025. The cost of deteriorating infrastructure takes a toll on families' disposable household income and impacts the quality and quantity of jobs in the U.S.

economy. From 2016 to 2025, each household will lose \$3,400 each year in disposable income due to infrastructure deficiencies

The "Failure to Act" studies have found that the fundamental impacts of underinvesting in infrastructure will be higher costs to businesses and households as a consequence of less

efficient and more costly infrastructure services. For example, travel times will lengthen with inefficient roadways and congested airports, and out-ofpocket expenditures to households and businesses will rise if the electric grid or water delivery systems fail to keep up with demand. Goods will be more expensive to produce and transport to retail shelves for households and business customers. Business related travel, as well as commuting and personal travel, will also become more expensive and less reliable. As a consequence, U.S. businesses will be more inefficient, and as productivity falls GDP will drop, cutting employment, and ultimately reducing personal income.

So how do we solve such a monumental funding issue? Some look to the Highway Trust Fund (HTF), which was set up in 1956 to build and maintain a nationwide transportation network. The HTF was traditionally a self-supporting bank account, collecting revenue from excise taxes on motor fuel. Unfortunately, gas and diesel taxes, which are set at 18.4 cents and 24.4 cents per gallon respectively, haven't been raised since 1993. As a result, the HTF is hovering near insolvency, and our bridges, roads, and transit systems are paying the price. In order to right the HTF, many suggest raising the motor fuels user tax over a defined successive period of time and indexing it to inflation. Although a step in the right direction, it is likely only a first step, as new forms of revenue will be needed to close the infrastructure investment gap.

One such solution may be charging drivers and truckers for the amount they drive in the form of a tax on Vehicle Miles Traveled (VMT) which charges motorists based on mileage through the use of an onboard device to capture the distance driven. For over a decade, a VMT tax has been piloted in various states (Oregon, California, Colorado and Washington have completed pilot programs). The perception is such a tax would more equitably distribute the cost of maintaining our roads and bridges, so that those who use our roads more often, pay more for the upkeep. Clearly, the size of the investment requires a comprehensive public sector solution, rather than relying on the retail industry to carry the burden in the form of "impact fees" and piece meal offsite improvements, as happens too frequently today as state and local governments try to shift these costs to the retail sector.

Strong infrastructure drives retail success and one thing is clear. Investment is needed not only to repair crumbling infrastructure, but to prepare for the future, until "Doc" Brown, Ph.D. and a fleet of DeLoreans arrive to save the day.

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