To: City of Bend Citywide Transportation Advisory Committee & CTAC Funding Work Group
Attn: Susanna Julber, Karen Swirsky, and Eric King
From: Steve Porter and Michelle Porter
Date: August 23, 2019

# Public Comment:

# *Transportation System Funding: Prepared Food & Beverage Sales Tax*

Dear Bend Citywide Transportation Advisory Committee & CTAC Funding Work Group:

The Funding Work Group (FWG) has provisionally identified a prepared food and beverage sales tax (F&B Tax) as a transportation system funding tool. We believe the F&B Tax is ill-suited to this purpose, and we request that the FWG reconsider its endorsement of this tool.

Although the F&B Tax is not as damaging a funding approach as the proposed general obligation bond, it nevertheless entails significant drawbacks and inefficiencies. It would lead to substantial negative unintended consequences, including local employment and income losses, discouragement of local new business development, and regressive wealth redistribution.

These harmful features would not be offset by efficiency gains or savings in the transportation system. Indeed, the F&B Tax would generate transportation system inefficiencies. The F&B Tax would thereby generate deadweight losses.

We hope the FWG will closely consider the importance of only using funding mechanisms that directly relate to transportation system usage. Such mechanisms link usage costs with payment and therefore do not generate the negative consequences or transportation system efficiency losses of funding tools without such a link.

## Prepared Food & Beverage Sales Tax

The FWG's provisionally endorsed F&B Tax would impose a 5% sales tax on all prepared food and beverage sales in Bend. Prepared food and beverage sales encompass all food and non-alcoholic beverage sales made by restaurants, caterers, bakeries, and coffee shops (F&B Vendors) - i.e., items intended for immediate consumption, as opposed to groceries for later use.[1]

The FWG estimates that Bend's annual sales subject to the proposed tax are approximately $207.7 million. A 5% tax rate would generate tax revenue in the range of $10.4 million annually.[2]

We have several observations relating to the proposed F&B Tax and its broader ramifications. We begin by addressing effective tax incidence - i.e., evaluating who actually pays the proposed F&B Tax. We then turn to the potential for damaging repercussions of the F&B Tax, including some financial figures intended to provide a rough sketch of such damage.

We conclude by reiterating the importance of utilizing only those funding mechanisms that directly link transportation system usage with payment in order to avoid damaging market distortions, transportation system waste, and what amount to absurd subsidization schemes.

### *Effective Tax Incidence*

Determining the extent to which the tax burden is paid by F&B Vendors versus their customers (F&B Consumers) is a matter of evaluating effective tax incidence. Tax incidence reflects the degree to which vendors are able to "pass on" to consumers the higher prices rendered by taxes. Understanding this effect provides basis for analyzing the tax's follow-on effects.

Tax incidence is generally estimated by examining the relative elasticities of consumers and producers in a market. If demand is more elastic (i.e., price-sensitive) than supply, one would expect less than the full tax amount to be reflected in prices: vendors would effectively pay most of the total tax burden out of profits. On the other hand, if demand is less elastic than supply, then tax values would get embedded into prices and be paid by consumers.

While we do not have supply elasticity data sufficient to enable precise quantification, it can be observed that vendors and consumers would be expected to approximately evenly share the F&B Tax burden on an industry-

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[1] Local sales taxes on alcoholic beverages are disallowed by Oregon State Law. "Initial Funding Assessment" (October 31, 2018), pp. 99-100. "Funding Work Group #5 Memo" (July 17, 2019). Ramakrishnan, J., "Food and Drink Tax Measure Before Hood River County Voters on Tuesday," *Oregonian* (May 20, 2019).

[2] "Initial Funding Assessment" (October 31, 2018), pp. 99-100. "Funding Work Group #5 Memo" (July 17, 2019).

wide basis. Industry-wide demand elasticity is close to "unitary."[3] And the market structure of Bend's F&B Vendors may best be characterized as "monopolistically competitive" since there is a relatively large number of competitors who compete principally on the basis of branding and other non-price factors.[4] The aggregated F&B Vendor supply elasticity may thereby be estimated as fairly close to unitary. Similar demand and supply elasticity values suggest that an approximate split of the tax incidence between F&B Consumers and F&B Vendors would be reasonably expected.

Consistent with this observation, we may infer that about one-half the tax revenue would be paid by F&B Consumers via higher prices and the other half paid by F&B Vendors via reduced disposable revenue. We can thus begin to sketch some of the economic repercussions of the F&B Tax.

As an initial matter we can observe that F&B Consumer welfare losses would be in the range of $5.2 million annually. Description of other consequences follow.

***Regressiveness***

Because each of the following consequences of the F&B Tax bears significantly on regressiveness, we will evaluate them primarily through that lens. This treatment does not imply the F&B Tax's impacts are solely linked to regressiveness, however.

Indeed, there is reason to believe that imposition of the F&B Tax would reduce what is known as the "economic multiplier" associated with economic activity in Bend's prepared food and beverage industry (F&B Industry). Analysis underpinning this observation is somewhat technical in nature and is, we believe, less important than the regressive features of the F&B Tax in determining whether the tax should be further endorsed by the FWG. Nevertheless, for purposes of sketching the effect, we embed brief discussion in a footnote.[5] The upshot of this economic multiplier analysis is that, following imposition of the F&B Tax, the average dollar spent at Bend F&B Vendors would generate smaller local economic benefits than prior to F&B Tax imposition.

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[3] According to empirical research, a mean elasticity value of about -0.81 has been observed for "food away from home," a category substantially similar to "prepared food and beverage." This implies that, for every 10% increase in prepared food and beverage prices, the quantity demanded of those goods would be expected to fall by 8.1%. Unitary elasticity is -1.0. We have amended the FWG's modeling of the F&B Tax to account for elasticity. On an industry-wide basis, there is no meaningful impact on F&B Tax revenue potential. However, as will be discussed in later parts of this comment, F&B Vendors exhibit highly dissimilar demand elasticities, which has implications for market dynamics after F&B Tax imposition. Andreyeva, T., et al., "The Impact of Food Prices on Consumption: A Systematic Review of Research on the Price Elasticity of Demand for Food," *The American Journal of Public Health* (February 2010).

[4] Porter, S. and M. Rakiec. *IP Strategy, Valuation, and Damages*. LexisNexis (2017 Edition).

[5] Different demand elasticities between full-service and limited-service establishments exist. These imply different rates of spending between the two types of establishments would occur with the F&B Tax relative to a no-tax condition. Since limited-service restaurants exhibit significantly more inelastic demand, total restaurant spending would shift toward these establishments at the expense of full-service restaurants. Limited-service restaurants are more likely to exhibit franchise ownership structures and are more likely to have inflexible and non-local procurement supply chains. This means that, for each dollar shifted from full-service to limited-service restaurants, less of that dollar would be retained in Bend's local economy. For example, McDonald's charges its franchise owners three types of fees that are paid out of local sales revenue to the McDonald's corporate entity: a flat franchisee fee (about $45,000); a monthly service fee (4% of gross sales); and a monthly facility rental allowance (averaged at 10.7% of sales). About 15% of every dollar paid by local customers to a local McDonald's franchise immediately exits the local economy via these fees. This reduces the overall economic multiplier effect of F&B Industry economic activity in Bend. We have not quantified this effect. Peterson, H., "Here's What It Costs to Open a McDonald's Restaurant," *Business Insider* (May 6, 2019). McDonald's Website, "Buying a Franchise" (accessed August 2019).

## Employment & Income Losses

Imposition of the F&B Tax would result in lower net revenue retention by F&B Vendors. If the tax incidence is shared equally by consumers and vendors, the approximate industry-wide decrease would be about $5.2 million per year.

Reduced revenue implies smaller operating budgets, which would result in decreased operating capacity for F&B Vendors. At least a portion of these decreases would manifest in reduced wages paid to employees. Net wage reductions would result from lowered wage rates (or, equivalently, reduced wage increases) and decreased employee headcounts.

These losses would be concentrated at the lowest end of the income spectrum. Because F&B Vendors would rationally choose to eliminate wage liability found in employees who make the smallest profit contribution, wage and headcount reductions would be imposed on low-wage "marginal" employees. Thus, imposition of the F&B Tax would generate job and income losses among those employees already earning the lowest wages. This is a highly regressive feature of the F&B Tax.

We can estimate the magnitude of this effect by considering full-time equivalent (FTE) wages and benefits. If the prevailing minimum wage is $15 per hour, that implies approximately $30,000 in wages paid per "marginal" employee. With additional benefits estimated at 33% of base wage, the total employer cost per FTE employee subject to elimination would be about $40,000 per year.

Dividing F&B Vendors' $5.2 million tax incidence by this $40,000 implies about 130 FTE jobs in the F&B Industry would be jeopardized by the F&B Tax.

We believe immediate employment losses would be somewhat mitigated by F&B Vendor ownership absorbing some tax incidence through reduced owner income. However, while the extent to which this effect arises would save some *existing* F&B Industry employment, it would equally reduce *future* F&B Industry employment growth.

## Reduced F&B Industry Business Investment & Development

If the returns to Bend's F&B Vendor owners decrease, that reduces dollar-for-dollar the owners' financial capabilities for investment in existing or new F&B Industry ventures. This will chill F&B Industry business development and employment growth in Bend.

This essential effect applies not only to existing F&B Vendors but also to prospective new entrants. If existing F&B Vendors do not offset the full tax incidence via wage expense reduction, the result would be lower ownership rates

of return. Since prospective investors consider relative return rates when evaluating new business opportunities, reduced F&B Vendor profit rates would dissuade new investment in the F&B Industry from outside investors.

Each new F&B Industry investment forgone because of the F&B Tax generates future F&B Industry employment losses relative to a no-tax condition.[6] Hence, even if existing F&B Vendors fully absorb the tax incidence through lowered owner income levels, *future* FTE job and wage losses would approximately equal those calculated if F&B Vendors reduce *existing* wage burdens to accommodate the tax.

Regardless of the mechanism, costs associated with the F&B Tax would fall disproportionately heavily on employees at the lowest end of the income range.

### Unequal F&B Vendor Price Increases

Though it is useful for sketching industry-wide effects, our use of aggregated demand elasticity to this point belies an important issue. There are significant differences in demand elasticities across the F&B Industry depending on F&B Vendor type. This has consequences for the regressiveness of the F&B Tax.

"Limited-service" F&B Vendors (e.g., fast food restaurants) exhibit inelastic demand, so their ability to pass along price increases to consumers is high. Empirical studies estimate demand elasticity for limited-service establishments at about -0.10. "Full-service" F&B Vendors (generally, "sit-down" restaurants), on the other hand, exhibit highly elastic demand. These F&B Vendors would unlikely be able to pass a substantial portion of price increases to consumers. Empirical evidence pegs demand elasticity for full-service establishments at about -2.0.[7]

This difference is significant, and by itself it has substantial implications. However, before discussing the consequences, a related issue warrants mention. Because the F&B Tax does not encompass alcohol, the effective tax rate for different F&B Vendors would vary depending on the extent to which their average receipts include alcohol sales. Full-service establishments generate higher relative rates of alcohol sales than limited-service establishments. Industry-wide averages suggest alcohol comprises about 30% of full-service restaurant sales.[8] Accordingly, full-service establishments' effective F&B Tax rate on total receipts would be 3.5%. At limited-service establishments less likely to serve alcohol or to do so in such a high proportion, the effective tax rate would approximate the headline 5% value.

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[6] This effect also reduces consumer welfare by diminishing economic choice in the F&B Tax scenario versus a no-tax condition.

[7] Okrent A., and J. Alston, "The Demand for Disaggregated Food-Away-From-Home and Food-at-Home Products in the United States," ERR-139, U.S. Department of Agriculture, Economic Research Service (August 2012). "Limited-service" establishments are defined as those "where patrons generally order or select items and pay before eating, while "full-service" establishments "provide food services to patrons who order and are served before paying." Other definitions focus on the presence or absence of waitstaff. These distinctions suggest that, anecdotally, it is fair to think of "limited-service" establishments are fast-food restaurants and "full-service" establishments as "sit-down" restaurants where food is delivered to the table. (See also: Stewart, H., et al., "The Demand for Food Away from Home," U.S. Department of Agriculture Economic Research Service, Agricultural Economic Report No. 829 (January 2004).)

[8] Morley, M., "Revenue that Comes with Selling Alcohol," *Chron* (accessed August 2019).

Together, these two effects are highly regressive for three key reasons:

- First, lower-income households spend a greater proportion of their total income on food than higher-income households,[9] so such households already are more susceptible to harm from taxes on food.
- Second, consumption pattern data indicate that a greater share of total spending by lower-income households occurs at limited-service restaurants.[10] These establishments would be more likely to raise prices by the full 5% tax rate due to inelastic demand than full-service restaurants more frequented by higher-income households.
- Third, those same limited-service restaurants are less likely to sell alcohol and therefore would have a greater proportion of total receipts subject to the tax. Both of these latter two effects mean that lower-income households would be persistently subjected to a higher rate of F&B Tax payment on food away from home than higher-income households.

Simultaneously, just as lower-income households face disproportionate rises in food prices compared with higher-wage households, F&B Industry wage losses would be concentrated at the lower end of the economic spectrum. Lower-income households would thus be squeezed by both damaging price and income effects at the same time. Higher-income households would face much smaller effects on both counts. This constitutes an extremely regressive tax impact.

### *No Transportation System Efficiency Benefit*

The foregoing negative effects are not offset by any efficiency gain in the transportation system due to imposition of the F&B Tax. Therefore, there is no offset for the F&B Tax's drawbacks.

Whereas the fuel tax, for instance, causes a reduction in costly usage of the transportation system and thereby reduces total funding needs - which is a highly efficient result of the fuel tax - the F&B Tax imparts no such benefit.

When transportation system usage costs become severed from funding payments, the value of price signals is lost. Damaging market distortions therefore occur, and the possibility of nothing less than absurd outcomes arises. We highlight one example below.

### Absurd Outcomes

Under the proposed F&B Tax, transportation system payment is unmoored from system usage. This leads to opportunities for users with light system cost footprints to subsidize users with heavy cost footprints.

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[9] "In general, the share of total income spent on food was higher for lower income households than it was for higher income households." U.S. Department of Labor, Bureau of Labor Statistics, "High-income Households Spent Half of Their Food Budget on Food Away From Home in 2015" (October 5, 2016).

[10] Stewart, H., et al., "The Demand for Food Away from Home," U.S. Department of Agriculture Economic Research Service, Agricultural Economic Report No. 829 (January 2004).

Consider a family of four that walks from home to a local restaurant to enjoy a meal together. The family would pay the F&B Tax despite their walk to and from the restaurant imposing essentially zero cost on the transportation system. Indeed, by walking, the family would have generated positive externalities. Consider as well the driver of a full-size SUV who drives alone to and from, and parks on-street in front of, a bar located next door to the family's restaurant in order to consume only alcoholic drinks. This driver, whose use of the system is costly and represents severe externalized dangers, would not only *not* pay the F&B Tax but would in fact be *subsidized* by the family. This is nothing short of absurd.

It also represents an excessive level of transportation system funding inefficiency. The F&B Tax funding mechanism directly incentivizes costly transportation system usage and discourages inexpensive transportation system usage.

## Linking Transportation System Funding with Usage

A core point that underpins this comment and many others we have submitted to CTAC is as follows: Funding mechanisms that do not directly link transportation system usage with payment generate significant inefficiencies, waste, and negative socioeconomic consequences. Simultaneously, they can *increase* system funding needs. Funding mechanisms that do directly link usage with payment do not cause these problems. They also serve to *reduce* total funding requirements.

We believe the Funding Work Group should revisit this core concept as it proceeds with identifying a funding package. The funding mechanisms provisionally identified by the FWG fail to provide significant linkage between usage and payment.

We suggest the FWG take a close look at the following funding tools that do link usage costs with payment.

- **VMT Fees**: In a rational funding package, VMT Fees would provide a large proportion of total funding. This is because vehicle miles traveled (VMTs) are the primary driver of transportation system costs. VMTs also generate significant negative externalities that can be corrected via fee/tax imposition. VMT fees discourage wasteful transportation system usage and encourage non-automotive travel, which generates positive rather than negative externalities.

- **Fuel Taxes**: Consumption of fossil fuels releases damaging pollutants which create externalized costs. Such costs may be efficiently redressed via tax imposition. Because vehicle weight positively correlates with both fuel consumption rates and transportation system usage costs, fuel taxes are efficient with respect to fiscal concerns. As detailed in our fuel tax comment, fuel taxes discourage wasteful transportation system usage and encourage non-automotive travel as well as migration to more fuel-efficient vehicles, both of which imply an improved mix of positive versus negative externalities.

- **Parking Fees**: As outlined in some detail in our earlier public comment regarding parking reforms,[11] the provision and consumption of parking spaces entails costs. "Free" parking is in fact subsidized and accordingly represents a financial transfer from those who drive least to those who drive most. Driving is responsible for most transportation system consumption/depreciation. "Free" parking, along with code-enforced minimum parking requirements, therefore encourages expensive transportation system usage. By removing this subsidy, public and private incentives become aligned, revenue is generated, and beneficial mode shifts are encouraged.

- **Vehicle Registration Fees**: Ideally, vehicle registration fees would be scaled with vehicle weight because heavier vehicles cause more road wear. In any case, vehicle registration fees can capture some system costs associated with vehicle use. Vehicle registration fees also discourage marginal vehicle ownership. Since vehicle ownership is highly predictive of personal VMT generation, this is a positive - and corrective - result of the fee.

- **Other Fees and Taxes**: It is our view that, if the foregoing funding mechanisms cannot generate sufficient revenue to fund the transportation system as envisaged by CTAC, then that is a powerful indicator that the envisioned system is of excessive size and/or comprised of inappropriately costly vehicle-oriented infrastructure. We view reliance on the above-listed funding tools, therefore, as protection against developing a transportation system that is of too large a scale and/or inappropriately encouraging of wasteful usage (which thereby locks in structural funding gaps). We nevertheless recognize that there may be valid reasons for reliance upon other funding tools, particularly as relates to the timing of cash flows. In that event, such reliance should be modest so as to limit the tools' negative consequences. The provisionally endorsed funding package by the FWG gets this equation backwards: It relies principally upon problematic funding tools and relegates efficient ones to minor supporting roles. It thus encourages wasteful transportation system development, subsidizes the costliest transportation system usage, discourages cost-efficient travel modes, endorses negative externalities (e.g., significant environmental and living standard damage), punishes positive externalities, and generates far-reaching and regressive socioeconomic problems. This surely is not the intent of the FWG. But it is the sure result of its proposed funding package.

Thank you for your consideration.

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[11] Porter, "Parking Policy Reforms to Promote Transportation System Improvements" (August 20, 2018).

## ABOUT THE AUTHORS

### Steve Porter

Steve is a recognized authority on economic analysis and valuation. He has provided expert testimony in high-stakes commercial litigation on topics including economics, valuation, statistics, econometrics, market definition, consumer choice, business strategy, and pricing, among others. He has consulted with Fortune 500 corporations on intellectual property licensing, asset transactions, and valuation issues, and he has conducted economic impact analyses, including work performed on behalf of the Los Angeles Superior Court. His articles have published in the *Journal of Legal Economics*, *les Nouvelles*, the *Patent, Trademark & Copyright Journal*, the *Journal of the Patent and Trademark Office Society*, and *Intellectual Asset Management*, among others. He also is co-author of *IP Strategy, Valuation, and Damages* (LexisNexis), a treatise on intellectual property economics. Some of his work has been cited as authoritative in filings submitted to the Supreme Court and the Federal Trade Commission, and he has been quoted by and featured in the editorials section of the *Wall Street Journal*. He has been an invited speaker before the Chicago Bar Association, the Attorney General's Office of the State of Arizona, and various law firms and corporations, where he has lectured on topics ranging from economic analysis and valuation to econometrics and game theory. He is a recipient of the William J. McKinstry Award in economics, the *Wall Street Journal* Scholar Award, the Micronomics Economic Research Award, and the IE Fund Leadership Scholar Award. He served as a teaching assistant in economics at the Dolibois European Center in Luxembourg, an ad hoc referee for the *Journal of Forensic Economics*, and as Co-Chair and an Executive Committee Member of Young Professionals Advisory Council at the Farmer School of Business. He graduated *summa cum laude* and with University Honors from Miami University in Oxford, Ohio, completing dual majors in economics and marketing. He received his MBA, with honors conferred by the Dean and Board of Academic Affairs, from IE Business School in Madrid, Spain, graduating 5th in a class of more than 400. He holds the Series 65 securities license.

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Michelle is an expert in valuation, economic analysis, and quantitative methods. She has been engaged by Fortune 500 companies, SMEs, U.S. and international government entities, and leading law firms to provide expertise in high-stakes commercial litigations, negotiations, and asset transactions. Her consulting work has encompassed advisory roles in industries including pharmaceuticals, medical devices, banking, telecommunications, consumer goods, software, and transportation technologies, among many others. Michelle is co-author of the book entitled *IP Strategy, Valuation, and Damages* (LexisNexis). Her articles have appeared in *les Nouvelles*, *Intellectual Asset Management*, *Intellectual Property Magazine*, *Smart Business, Los Angeles Daily Journal*, *The Recorder,* and *China Intellectual Property*, and she has been quoted by *Forbes*. Michelle has spoken before such groups as the Intellectual Property Law Committee of the Chicago Bar Association, Google, and Motorola Mobility. Her work has been recognized with the Accenture International Consulting Competition Top Honors Award, the IE Women Leaders Scholarship Award, the *les Nouvelles* Best Article Award, and the Micronomics Economic Research Award. In addition, Michelle has served as an advisor to the Forte Foundation's MBALaunch for Women, President of the IE Business School Southern California Alumni Association, Co-Chair and Executive Committee Member of Young Professionals Advisory Council at the Farmer School of Business, and an instructor in microeconomics. Michelle graduated *cum laude* from Miami University in Oxford, Ohio, majoring in economics. She received her MBA from IE Business School in Madrid, Spain.