

**Public Finance Field Exam  
August 2019**

**Directions:** Answer both questions, in whatever order you prefer.

**1. Consumption Taxation**

Over the years, there have frequently been suggestions for the adoption of consumption-based taxation at the national level in the United States, which is virtually the only developed country without a broad-based national consumption tax. However, aside from the general political difficulty confronting adoption of such a tax, there are also many variants of consumption-based taxation among which to choose.

- a. Describe how a value added tax (VAT) and a retail sales tax (RST) could both be used to implement a uniform tax on all domestic consumption (and only domestic consumption). Discuss why the two systems might have different economic effects in practice.
- b. In practice, most existing VATs impose rates that vary across commodities, with necessities such as food typically taxed at a lower or zero rate. Discuss the desirability of such tax rate variation for a VAT as a potential part of the overall U.S. tax system.
- c. Some have argued that a uniform-rate VAT or RST should be amended so that consumption activities that generate externalities (e.g., gasoline purchases by households) should face a higher rate of tax. Would this result in the standard Pigouvian approach?
- d. The only U.S. broad-based consumption tax is the state-imposed RST. Notably, most state RSTs collect significant revenues from taxing business-to-business retail sales (e.g., sales of trucks to a construction company). One argument sometimes made for this approach is that a broader tax base (that includes retail sales to both consumers *and* businesses) allows a lower tax rate and hence smaller behavioral distortions. Comment.
- e. A third manner of imposing a consumption tax is through a so-called “flat” tax. The flat tax would consist of two parts, one on individuals and one on businesses. The two taxes would be levied at a single tax rate. The base of the tax on each individual would be all labor compensation in excess of a high threshold. The base of the business tax would be cash flow. Under one version, known as *destination-based*, cash flow would be defined as receipts of businesses from *domestic* sales less expenditures by businesses for *domestic* purchases of materials and capital goods. Discuss the difference between the flat tax as described here and the VAT and the implications for equity and efficiency, assuming that the flat tax and the VAT raise the same amount of government revenue.
- f. A variant of the flat tax would modify the individual labor income tax to allow two or three marginal tax brackets, with the highest marginal tax rate being equal to the marginal tax rate on businesses and higher than the marginal tax rates on lower labor income individuals. Discuss the impact of this modification on the efficiency and distributional (both inter- and intra- generational) consequences of adopting a flat tax.
- g. Another variant of the flat tax would impose a different form of cash flow tax, taxing the receipts from all sales from the U.S. – domestic and for export – and allowing deductions for all purchases of materials and capital goods – domestic and imported (including exports to and imports from related foreign businesses). How would this modification affect the efficiency and incidence of the cash flow tax?

## 2. Tax Cut and Jobs Act

Part A. Executive pay. The Tax Cut and Jobs Act (TCJA) passed on December 2017 eliminates the ability of public corporations to deduct compensation in excess of \$1 million for each affected employee and imposes an equivalent 21 percent “excise tax” on similar employees at tax-exempt organizations. As a result, for these executives pay is not just subject to the top federal individual income tax rate (37%), it’s now subject to the corporate tax (21%) as well. The tax applies to a maximum of 5 employees per firm.

- a. Assuming that the incidence of the tax is fully on executives, what’s the combined top marginal income tax rate for an executive living in California (top marginal income tax rate of 12.3%) and affected by the reform?
- b. Assuming the tax cannot be avoided, explain what type of behavioral responses one can expect from this reform. Use your knowledge of existing empirical evidence to respond to this question.
- c. Suppose you have access to repeated cross sections of individual income tax data for years 2017, 2018, and 2019. Propose a simple empirical method to analyze whether the behavioral responses you expect from b. effectively happened. State clearly the identification assumptions needed for the analysis to be valid.

Part B. Corporate tax reform. The TCJA reduced the federal corporate tax rate from 35% to 21% and moved the US corporate tax to a territorial system. It also introduced provisions to limit international profit shifting. In particular, the income earned by US multinationals abroad above a 10% return on tangible capital (called Global Intangible Low-Tax Income, or GILTI) is subject to a minimum tax in the United States to prevent the overall tax rate on foreign source income from falling below 10.5%.

- d. Explain what the move to a “territorial system” means. How does this mark a departure from the US corporate tax system in place before 2018?
- e. What does economic analysis suggest about the effect of a cut in the corporate tax rate on corporate investment? Distinguish the effect on global investment vs. investment in the United States, and the effect keeping other countries’ policies fixed vs. varying other countries’ policies.
- f. Suggest a research design that would allow to test these predictions (you may leverage the fact that not all businesses are subject to the corporate tax).
- g. The GILTI provisions do not apply country-by-country but globally (i.e., companies can offset low foreign taxes paid in some countries with high foreign taxes abroad). But imagine that the tax was applied country by country and at a higher rate. How would it affect the location of the earnings reported by US multinationals?

Part C. The TCJA also introduced a tax break for pass-through business income (income earned from sole proprietorships, partnerships, and S-corporation). 20% of business income can be deducted, so that the top marginal tax rate for business income is 29.6% instead of 37% as for wages. For some forms of business income (such as legal, accounting, or

consulting services), the deduction is only available to taxpayers with less than \$315,000 in income. For other forms of business income (for instance real estate services) there is no such limitation.

- h. Describe how taxpayers (individuals and businesses) could respond in the medium-run along the tax avoidance margin (changing the way income is reported rather than the underlying economic behavior). Discuss in particular potential shifting across the following bases: wage income, pass-through business profits, and C-corporation profits. Use your knowledge of existing empirical evidence to respond to this question.
- i. Use your knowledge of who earns business income in the United States to analyze the distributional consequences of this reform.