

## **Public Finance Doctoral Examination**

### **Ground Rules:**

- Answer one (1) question from each of the three sections, plus one (1) more question from any section of your choosing. This means you will have answered four (4) questions in total.
- You should not identify yourself in the exam, so as to assist in making this a double-blind grading process.
- You are not to discuss the questions with your colleagues as you prepare your answers.
- Your answers are to be turned in by 5:00 PM.

You should have sufficient time for the examination. Before you begin to write, it would be helpful for you to spend some time on reflection and on organizing your thoughts.

### **Taxation:**

1. The year 2020 is so wild that, starting in September, vampires come into existence. While some people elect to become vampires, others are coerced into it by being involuntarily bitten by other vampires. Most people enjoy eating garlic in their pre-vampire state, but hate it after they become vampires as its presence/smell causes them health problems. Indiana is considering a selective sales tax on garlic due to intensive lobbying from a pro-vampire interest group.

Write an essay that explains the different possible dimensions of the efficiency of the state selective sales tax on garlic in this setting. You can assume your professors are the audience and are capable of reading social science models and figures. However, we will assume you know nothing about possible relevant topics (e.g. excess burden, social welfare functions, externalities, optimal taxation, behavioral economics, fiscal federalism, sales tax administration, special interest group theory, etc.) unless you explicitly teach them to us with good technical sophistication inside the essay.

2. The COVID crisis led to a rapid increase in the number of unemployed. Many of these newly unemployed were unable to get through the crisis on accumulated savings and thus an increased risk of personal financial crisis (e.g. missed mortgages, rents, car payments, food, etc.). Both academics and policymakers discussed several fiscal packages aimed to providing financial relief for the newly unemployed. There

was a lot of debate about how to balance speed of implementation with targeting. You want to get the money to people as quickly as possible, but you also want to get the money to the people who need it. Greg Mankiw proposed a stimulus package that maximized speed in time  $t$  and addressed targeting in time  $t+1$ . The proposal is summarized below:

*Let's send every person a check for  $X$  dollars every month for the next  $N$  months. In addition, levy a surtax on 2020 earnings--due in April 2021 or perhaps spread over several years--equal to  $N \cdot X \cdot (Y_{2020}/Y_{2019})$ , where  $Y_{2020}$  is a person's earnings in 2020 and  $Y_{2019}$  is a person's earnings in 2019. The surtax would be capped at  $N \cdot X$ .*

*Under this plan, a person whose earnings fall to zero in 2020 keeps all of the social insurance payments and does not pay the surtax. A person whose earnings fall by half keeps half of the payments and returns half. A person whose earnings remain the same (or increase) returns everything: They will have just gotten a short-term loan.*

*Of course, there is an implicit marginal tax rate in this scheme. If  $Y_{2020}$  is less than  $Y_{2019}$ , each dollar of earnings in 2020 faces an additional marginal tax rate of  $N \cdot X / Y_{2019}$ .*

Your task:

Offer and discuss 2 hypotheses based on this policy. Be extremely clear in terms of the theoretical set-up of these hypotheses. For example, if you were going to test a tax compliance hypothesis, then you'd set up an objective & constraint for the relevant actor(s) with their first order conditions. Contextualize the hypotheses in relevant literature, and explain the relevance of the hypothesis to policy, our understanding of social order, or both.

### **Budgeting:**

3. Incrementalism as a framework for understanding observed budgetary behavior has been subject to repeated challenge by the "punctuated equilibrium" perspective in the past thirty years. For instance, Jones & Baumgartner, Ryu, and others have revealed that there tends to be a great deal of inertia in various elements of both federal and state budgets over time. In "normal" periods, budget elements grow apace, more-or-less in line with overall budgetary growth. But there are noticeable, and significant, "lurches:" thresholds are crossed where certain elements of budgets will change rapidly for a limited time, the

return to a more normal growth path. This pattern of budgetary change has been termed "punctuated equilibrium," after the evolutionary theory that also bears that name.

Summarize the incremental approach and comment on the major literature that embraces the incremental view. Provide a detailed discussion of the challenge posed by the punctuated equilibrium perspective. Which theory appears to better describe budgetary change? Are the two competing theories, or are they actually complementary to one another? Cite the appropriate literature in support of your response.

4. The following is an excerpt from Ron Suskind's *The Price of Loyalty: George W. Bush, the White House, and the Education of Paul O'Neill* (New York: Simon & Schuster, 2004):

"The package of tax proposals, led by the 50 percent cut in the individual income tax on dividends, had been all but buried before the midterm elections [of 2002]; it came up infrequently and always in the past tense – what George W. Bush wanted to do but couldn't afford [to do].

But after the Republicans won the midterms, [U.S. Treasury Secretary Paul A.] O'Neill could sense a change in the White House, a smugness, a sureness. Now [Vice President Dick] Cheney brought up the tax proposal again, how they would provide [economic] stimulus...

O'Neill jumped in, arguing sharply how the government was 'moving toward a fiscal crisis' and 'what rising deficits would mean to our economic soundness.'

Cheney cut him off.

'Reagan proved [that] deficits don't matter,' Cheney said.

O'Neill shook his head, hardly believing that Cheney – whom he and [Federal Reserve Chairman Alan] Greenspan had known since Dick was a kid – could say such a thing.

He [O'Neill] was speechless. Cheney moved to fill the void [in conversation]. 'We won the midterms,' he said. 'This is our due.' "

Discuss the theoretical and practical soundness of both O'Neill's and Cheney's positions relative to U.S. federal deficits, and the

accumulation of national debt. Be sure to discuss the contrasting views of “sound finance” and “functional finance.” Which attitude has greater theoretical and practical support, O’Neill’s or Cheney’s?

### **Debt:**

5. Both the Tax Reform Act of 1986 (TRA) and the Tax Cuts & Jobs Act of 2017 (TCJA) contain several provisions affecting the municipal securities market. Describe the provisions of the Tax Reform Act of 1986 and the Tax Cuts & Jobs Act of 2017 that directly affected the municipal securities market? Why and how did they impact the market? Make sure your response demonstrates a thorough understanding of the theoretical and empirical literature on taxation and municipal securities.

Finally, some analysts have used the phrase “back to the future” to describe the post-TCJA municipal market. Analyze the impact of the federal TCJA tax changes on the municipal market along several important dimensions (e.g., supply and demand factors, credit quality, debt structures, debt types, tax-exempt versus taxable securities, etc.), and the sufficiency, cost and allocation of public capital investment in the United States.

6. Senator McConnell, United States Senate Majority Leader, recently made the statement that state governments unable to meet their financial obligations should consider filing for federal bankruptcy. U.S. state governments are not authorized to file for federal bankruptcy protection, and it is debatable whether or not the U.S. federal government has the constitutional authority to adjudicate a bankruptcy proceeding for a “sovereign” state government.

Across the system of fiscal federalism in the United States there are varying levels of bankruptcy protection. While state governments are not allowed to file for federal bankruptcy protection, certain local governments are authorized and have filed for bankruptcy. At the local level there is substantial variation across and even within states. And there now is a quasi-form of bankruptcy used for the Commonwealth of Puerto Rico, that may also apply to other subnational government relationships in the U.S.

From a financial economics perspective, what is bankruptcy, and why is it important for bankruptcy to be authorized or not? Analyze the

implications of bankruptcy protection, or the lack thereof, on prices and yields, supply and demand, across subnational governments that sell debt in the municipal securities market. For debt issues with different levels of bankruptcy protection (0% to 100% protection), analyze historical primary and secondary market yields, and explain likely changes in the market in the face of COVID-19. You can use a particular issuer to illustrate your main points, such as the Commonwealth of Puerto Rico. Finally, describe the “ideal” bankruptcy protection framework, or similar type of legal policies and structure, that should be applied to subnational governments outside of the United States that are in the process of developing a functional subnational government securities market.