Public Finance Doctoral Examination

Ground Rules:

- You are permitted a bibliography or list of references to bring with you into the exam. Otherwise, no notes, articles, books, internet, or any other supporting materials are permitted during the examination.

- 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. Quantity is not a substitute for quality in answering these questions.

[General] Answer one of the following two questions:

1. "Social Impact Bonds", also known as "Pay for Success programs", occur when governments pay back bonds that finance programs that are objectively hitting prescribed target goals. The **Appendix** includes a recent article from *Governing Magazine* that summarizes these programs and highlights their controversies. Provide some of your own discussion on the merits of this policy. Is it really a novel public policy, or a repackaging of how public finance policy is framed? Does that matter? Discuss some research beyond the simple question of "do these programs 'work'?" to extend into how government might change in size, scope, or mission. Ground this discussion in relevant theory (e.g. median voter, fiscal federalism, fiscal illusion, etc.).

2. Suppose in the future, the economy becomes one where every person is a producer who creates and sells product that has zero marginal cost (e.g. things that can be downloaded like music, books, software, blueprints, etc.). As a result, everyone sets prices where the demand curve is unitary elastic (i.e. "the pure selling problem" or "revenue maximization"). Propose and discuss some alternative tax systems for an economy that has this characteristic. A way to think about this might be to ask "what might an optimal tax system look like in this context?" and then discuss these systems in the context of the tax policy criteria and other models of public finance. Are there any considerations for the larger public finance system and budgeting practices? Be sure to specify what considerations need to be

known, the assumptions being made, and the importance of any of these key parameters.

[Taxation] Answer one of the following two questions:

3. Retail sales and value added taxes are recognized as economically equivalent taxes, differing only in regard to how they are administered. There is evidence, however, that one of these tax formats is subject to systematically higher rates of non-compliance than is the other. Please indicate what this evidence shows and how it has been derived. Speculate on what particular differences in the two taxes might explain the difference in compliance results.

4. In a recent ABFM conference panel discussion on how to (politically) save the real property tax, professor John Mikesell asked the following:

   "Is [the real property tax] worth saving? In the last several decades, states have warped and twisted the tax into a form that is so ugly, that I'm not sure I can defend it beyond arguing that it produces revenue."

   Explain what professor Mikesell is referring to by contrasting the idealized real property tax (what is it and what are its merits) to the reality of the tax as it is currently implemented. Evaluate the state of the real property tax as a policy. If there are critical points that require research, cite it or describe how it would be addressed in a research design.

   Is the real property tax worth saving?

[Budgeting] Answer one of the following two questions:

5. 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. 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.

6. There is some strong opinion in the international financial markets that the U.S. national debt has become "too large," by some measures. Further, the opinion goes, at some critical level of debt, so-called "bond vigilantes" – international financiers – will punish the U.S. Government for its lax debt policies. What do you think about this proposition? Do "bond vigilantes"

even exist? How would they effectively "punish" the U.S. Government? In a directly connected matter, the concentrated ownership of U.S. national debt on the part of the governments of China, Japan and the United Kingdom is regarded by some as a threat to U.S. national security. Is this an actual "threat"? In principle, what threshold of ownership of U.S. national debt would constitute such a threat? Why?

[Debt] Answer one of the following two questions:

7. Last April, the U.S. Federal Reserve issued a new federal rule limiting the kinds of assets that banks hold in their portfolio that can be considered "highly quality liquid assets" (HQLA). This is relevant to compliance with federal deposit insurance regulation to ensure that banks meet reserve requirements in their lending practices. Easily sellable securities like federal treasuries or highly rated corporate bonds were included in the rule as HQLA, but state and local municipal securities would no longer make the list. Discuss what effects updating this rule might have on the various stakeholders involved, and cite any evidence from analogous policies that you deem relevant.

8. Financial market efficiency is a theory of how modern financial markets should and do work. A basic aspect of this theory involves the importance of information. The 2007-08 financial crisis laid bare several inefficiencies in the municipal and corporate securities' markets. In direct response to some of the problems, the Congress passed and President Obama signed Dodd-Frank into law in 2010. Also, after the financial crisis the SEC and MSRB stepped up enforcement of existing disclosure regulations to improve municipal disclosure.

   Theoretically, how was Dodd-Frank intended to improve financial market efficiency for municipal securities?

   Practically, how has the implementation of Dodd-Frank, along with the increased enforcement of prior laws, improved the disclosure of information for municipal securities?

   Describe the major differences in the systems for disclosing information on corporate and municipal securities. Why do these differences occur? How do they result in specific differences in market structure and pricing? What is their impact on the efficiency of both securities markets?

APPENDIX: Excerpt of *Governing* article on Social Impact Bonds

"Are Governments 'Paying for Failure' With Social Impact Bonds?"
By Liz Farmer, August 2015

Three years ago, New York City launched an ambitious and unprecedented social policy experiment at its jail on Rikers Island. Thousands of teenage inmates began receiving group therapy aimed at improving their moral reasoning by addressing their beliefs and thought processes in a step-by-step treatment. The goal was to reduce the number of repeat offenses once the inmates were released. Academic studies using the method, known as moral reconation therapy, had reported success in reducing recidivism. Still, no one had ever scaled up these studies to accommodate anything like the 9,240 inmates the four-year Rikers Island program aimed to serve. This month, the program is coming to an abrupt end.

The reason for the progam's demise has to do with another feature of the experiment: It was financed entirely with a $9.6 million loan from Goldman Sachs. New York City was to pay the investment firm back if the repeat offense rate went down by at least 10 percent over four years. In June, a preliminary report showed the program not only was missing its recidivism target, it had no impact on the rate altogether. Goldman Sachs moved swiftly and took a contract option to cancel the program one year early. The first social impact bond program in the United States has officially failed.

"Everyone went into this understanding what they were getting into," says David Butler, a senior adviser at MDRC, a nonprofit social policy research organization that managed the treatment program at Rikers. "These things are risks. Just because something works in one environment doesn't mean it will work somewhere else."

Unpredictable as they are, programs like the one at Rikers are not going away. In fact, these attempts to link altruistic policy goals with the pursuit of private profit have been gaining steam as the latest promising innovation in public finance. The mere announcement of the Rikers project back in 2012 was a catalyst for action in dozens of other jurisdictions. Cash-strapped governments quickly became sold on the concept that they can use private money from investors for preventive social programs -- money the government will have to pay back only if the programs produce the desired measurable outcomes. In 2013 alone, 28 state and local governments applied to the Rockefeller Foundation and Harvard's Social Impact Bond Technical Assistance Lab to receive help in developing such programs.

Media outlets have often touted the innovative financing tool with few notes about the complicated nature of the projects. Last year on Capitol Hill, where bipartisan support is famously elusive these days, a $300 million proposal pushed by President Obama to allocate federal funds for social impact bond projects in the states managed to attract proponents on both sides of the aisle.

But as the enthusiasm for social impact bonds has grown, so has skepticism about the concept of partnering with the private sector to accomplish social goals. Last spring, a congressional hearing on the subject ended on a negative note as critics questioned the complicated structure of program contracts between governments, investors and the various private operators involved. "I don't get this at all," said Maine independent Sen. Angus King, squinting with disbelief. "I think this is an admission that government isn't doing what it's supposed to do. This strikes me as a fancy way of contracting out."

That hearing was followed by a report last summer that the world's first social impact program, located in the United Kingdom, had not reached its target goal required to trigger early payments to investors. That development and the news from the Rikers project underscore the fact that the merits of social impact bond programs are entirely unproven. The programs are so new, in fact, that people are still arguing about what to call them. Some say that referring to them as bond investments is misleading because they are not like actual government bonds that are bought and sold on a public market. That's why many proponents prefer to call them "pay for success" programs. But what does "pay for success" imply, asks Indiana University Public Affairs professor Craig L. Johnson. "That right now we're paying for failure?"

The bond programs may or may not save governments money in the long run. Even though the Rikers project didn't work, Goldman Sachs said last month that its three other social impact bond investments had shown "encouraging progress." Still, it's much too early to tell if any of these endeavors will actually bring about the kind of change that social scientists and governments are hoping for.

Social impact bonds got their start five years ago in the U.K., at a prison in Peterborough, a city of about 190,000 people situated 100 miles north of London. Investors and social services professionals formed a group called Social Finance and made Peterborough their first investment. For a cost of about $8 million over six years, the provider, One Service, is giving comprehensive assistance to offenders who have served short sentences, in an effort to help them become self-supporting when they are released. Caseworkers help get ex-cons ID cards, set them up with doctors, encourage them to take classes and help them find counseling.

The argument for doing something at Peterborough was compelling. In Britain, 60 percent of those who serve short-term sentences land back in jail within a year. The Peterborough program, which will conclude next year, aims to reduce recidivism by 7.5 percent. The buzz about it and its new financing method via private investors led to the flurry of experiments at the state and local level in the United States. In December 2013, New York became the first state to try social impact bonds, launching a program aimed at reducing recidivism and increasing employment among 2,000 ex-offenders. All told, more than two dozen states and localities have now taken up or considered a social impact bond project.

These bond deals are being used to address all sorts of social problems, including early childhood education, homelessness, health and criminal justice. No two projects are the same. Each must draw up its own contract with service providers and with the project evaluators who track the outcomes. None of the new projects can be modeled after an existing one; each is its own social experiment and must be built from the ground up. For example, the Massachusetts juvenile justice bond program is financed with $18 million from six organizations, including nonprofits. The state is setting aside money every year for a separate fund to pay back investors if the seven-year project meets its goals. The Rikers Island project, on the other hand, was financed entirely by Goldman Sachs, with Bloomberg Philanthropies insuring three-quarters of the money.

The stated goals vary considerably. While the goal at Rikers was to reduce recidivism by at least 10 percent, Massachusetts is targeting a 40 percent reduction in jail days over seven years for the nearly 1,000 offenders in the study. The state estimates this reduction would result in a $22 million savings, and that is the amount it will pay back investors if the goal is reached. If the program exceeds that goal, Massachusetts estimates it could save as much as $45 million; however, it would only have to pay out a maximum of $27 million. Other programs have similarly structured payouts. Goldman Sachs stood to receive as much as $11.7 million if the Rikers program significantly exceeded its goal, while New York City estimates it would have recouped a net savings of up to $20.5 million.

These are complicated agreements -- the Massachusetts bond contract is more than 200 pages long -- and their very complexity is often cited by their critics as a weakness. Maryland investigated the possibility of using social impact bonds, but the state's Department of Legislative Services concluded in 2013 that the startup cost of designing a program and negotiating a contract would likely exceed the projected savings of a pilot serving several hundred people. That report essentially killed the issue of social impact bonds in Maryland, at least for now.

Indeed, the Rikers experience seems to illustrate that concern. A report on lessons learned prepared last year by MDRC lamented the jail program's "high transaction costs" that weren't covered in the Goldman Sachs loan. And for all the effort, the city's greatest potential for cost savings would have amounted to less than half of a percent of the $1 billion it costs annually to run the jail.

But whatever the critics may say, it seems likely that governments will be increasingly attracted to these experiments. At a minimum, practitioners argue, they will get the benefits of knowing more about what doesn't work, and can cut their losses. In that sense, says MDRC's Butler, the Rikers program was a success. "This is not the recipe for reducing recidivism for these kids at Rikers," he says. "Learning that was really important."

Still, the task of attracting investors is tricky. Even the philanthropically minded investors drawn to social impact bond projects aren't going to put up money for a program that looks like it was constructed on a wing and a prayer.

Goldman Sachs was reticent to enter the Rikers deal in 2012 until it saw results from previous academic studies that showed moral reconation therapy could reduce recidivism by up to 25 percent in those participating. And even then, it took insurance from

Bloomberg Philanthropies to seal the deal. (As a result, the firm lost $1.2 million instead of its full investment.) “We’re trying to find that sweet spot of allowing every stakeholder to win,” says Tracy Palandjian, CEO of Social Finance US, which is a sister company to the U.K. group and is managing the New York state, as well as developing ones in Connecticut, Massachusetts, Michigan and South Carolina. “So even when the state pays back the investors with returns, that still should be smaller than what you gain overall as a state.”

But that’s where the argument ends, at least for now. Until the social impact projects currently running hit their end dates, no one will know how the numbers play out. And on the social services side, some question whether designing projects focused on short-term behavioral change is the best way to intervene. “It is hard to recreate the kind of concrete turnaround you get in pay for success across a whole lifespan,” says Anne Stone, who runs a child development program in Washington state. “I’m not in any way suggesting it’s not worthy to move those dials, but is there a way we can be thinking about this in a two-generation approach?”

The fact is, social impact bonds may have started out life as an innovative financing tool. But many who are now taking part in them are finding that the real experiment is in developing a new model for delivering government services. In that sense, supporters hope the projects’ immediate impact will be in encouraging more social policy geared toward preventive measures, even if the intangible savings are impossible to quantify. They are hopeful that when a project ends and appears to be working, the government will be willing to pay the full cost of its extension, without any private backers.

Sometimes even the hint of private investment can spur a commitment from government. The Utah Legislature recently agreed to assume some of the costs of a Salt Lake County social impact bond program after Goldman Sachs committed to financing for one. Harvard’s Jeffrey Liebman had a similar experience working with a state budget director to find a social impact project for that state. Among the ideas Liebman proposed was a health-care program that would place caseworkers in senior centers to save on Medicaid costs. Instead of going for the financing project, the budget director just opted to include the cost for the caseworkers in the state’s budget. “If social impact bonds cause that to happen, that’s just as good,” Liebman said at last year’s Senate hearing.

Still, for Indiana University's Johnson, any kind of mass social impact brought about by these kinds of projects is decades away. "We need a lot more cases to see what works and what doesn't," he says. "The problem I see now is, if you just have a few experiments going, that's not going to tell us how to change. Until people have put up [collectively] hundreds of millions of dollars, we're not going to know if this works."