

Research to Application: Gaps in the Development of Public Policy

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Issues and Framework

- There are two questions:
 - first, is research being done in the academia and outside conducive to policy application; and,
 - second, to the extent that it is, is this practical type of research being applied effectively in policy development, and if not why not?
- A useful framework would be to think of the “research marketplace”.
- For an economist the market as a basis of a framework is natural and simple and should not come as a surprise.
- Specifically, three markets are analyzed:
 - the market for research;
 - the market for converting research into application; and
 - the market for applications.
- If these markets are seen not to work efficiently, that would imply that not all research being done may be practically useful, and even if it is, it may not be applied effectively.

Market for Research

- There is a market for research in the sense that:
 - there is a demand for research within the academic community; and
 - there is a supply of research within the same community.
 - Like any other market with demand and supply, there is a price: the price in the market for academic research is the reward for publishing this research.
- Example of this market:
 - my own doctorate dissertation in economics.

Economics of Smuggling: Theory and Application

- Focus both on theory and its application.
- With this explicit focus on relevant and applicable research, how far did the thesis succeed in achieving these objectives?
- Thesis contents can be divided into three groups:
 - Abstract theory
 - Theory with application potential
 - Empirical evidence
- Abstract theory:
 - Under reasonable assumptions, smuggling increases national welfare (*Journal of International Economics*);
 - Not an applicable result.

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- Theory with application potential:
 - theoretical model of the black market for foreign exchange (*Journal of Development Economics*) ;
 - The result: in the presence of a reasonable set of assumptions, and with foreign exchange controls, the equilibrium exchange rate is somewhere in the middle of the black market rate that can be observed and the actual official exchange rate.
 - this research got published without having either to verify the appropriateness of assumptions or the real life validity of results.
- Empirical Evidence:
 - evident and strong relationship between trade policy and smuggling (*Oxford Bulletin of Economics and Statistics*);
 - Not aware of any application of this result.

Market for Converting Research into Application

- A second market may take ideas generated in academic research and translate them into practical applications for use by industry or governments.
- Like any other market, such a market would exist of its own only if there are rewards for participating in this market.
- If not, some other means of intervention may create a market, such as government support.
- A very popular topic on this subject is:
 - Canada is quite weak in commercializing the scientific research that gets done in this country, particularly in the academia.
 - Many a federal budgets have talked about this problem and have made efforts to strengthen this market, with only minimal effect.

Examples

- Two cases:
 - one example for a non-existing market; and
 - one which does exist but it may not be optimal.
- A largely non-existing market:
 - one for economic research.
 - We do not see any stand alone market-driven firms that take theoretical economic research and convert it into applicable policies.
 - Rather, what we see is a small number of think tanks that recognize the importance of this conversion and raise funds through a variety of means to keep them going.
 - Since these think tanks are dependent on such funding, there is some risk for their future operations. Living hand to mouth does not seem to me to be the way to reach an optimal level of conversion of research into applicable ideas.

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- A sub-optimal market:
 - An opposite example is that of the market for pharmaceuticals.
 - A doctorate dissertation submitted to York University in February 2009 by Marc- Andre Gagnon examines this market for conversion of research into applications.
 - He concludes that there is a global decline in therapeutic innovation, which means a decline in the rate of research.
 - However, despite this, the earning capacity of the global pharmaceutical business has expanded.
 - Gagnon's research concludes that this has happened because of new institutional settings that were put in place to increase dominant firms' monopolistic power since the beginning of the 1980s.
- This example is not as a commentary on the pharmaceutical industry but as an illustration of the kinds of factors that may come into play to distort the market place.

Market for Application

- Examples:
 - bridges that collapsed in Laval, Quebec on September 29, 2006 and in Minnesota, the U.S. on August 1, 2007.
- Three possible explanations:
 - the research into building durable bridges is in need of improvement;
 - the research exists but it was not applied properly;
 - there was not the appropriate level of monitoring, maintenance and repair.
 - The first two are questions in the discipline of civil engineering and the third is an issue in public policy.
- It is my understanding that research and its application generally go hand in hand in civil engineering.
 - Almost all theories related to civil engineering are lab-tested.
 - This means that the incentives are quite weak to publish research which has no potential value.
 - The technology to build bridges both in theory and in practice is available.
 - Hence, the failure is potentially that of the application of right public policy.

Examples of Application of Research in Public Policy

- Implementation of top notch research in determining Canadian monetary policy.
 - Canada's move to flexible exchange rates in 1971, following the seminal work of a great Canadian economist Robert Mundell, is a clear case of this.
 - The Bank of Canada's success in containing the rate of inflation within the inflation targets over the last many years has produced economic prosperity in Canada and is a factor in explaining why Canada is doing well in the current economic and financial crisis.
- Elimination of the large budget deficits in the mid 1990s.
 - Focused mostly on eliminating/reducing inefficient spending.
- The North American Free Trade Agreement.
- The fix of the Canada and Quebec Pension Plans in 1997.
 - This part of the pension system is now on a sustainable footing.
- The tax reductions in the 2000 Economic and Fiscal Update, including the indexation of the personal income tax.
 - Largest tax cut in Canadian history.

Examples of Research Not Applied

- Environment:
 - Research shows clearly that markets cannot deal with externalities. You require government intervention to correct market signals.
 - Theory also tells us that the optimal policy approach is to put a price on the externality.
 - Despite this well recognized theory, implementation is difficult.
- Health care:
 - The market does not work well. Recognizing this reality, health care is publicly delivered in Canada.
 - However, the cost of health care is rising too rapidly for governments to be comfortable.
 - Many have concluded that the incentive structure in the health care system is deficient.
 - For example, there is a recent report that suggests that doctors may be prescribing too many tests for determining the deficiency of vitamin D.
 - Whether that is the case or not, the more important point is that there does not seem to be a system in place to correct for the failures of the system. The breakdown also comes because doctors are not always updated on new research.

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- Long-Form Census:
 - cancellation of the long form census, at a higher financial cost, despite universal evidence that a voluntary survey cannot be a substitute for a mandatory census.
- **What explains this failure in public policy?**
- Governments take into account a variety of factors in reaching public policy decisions.
 - They would generally like to do the right thing.
 - However, governments want to get re-elected and so popular reaction to policies is important.
 - Other times, they may simply guess wrong what the public will be willing to accept.
 - There is also the difficulty of raising taxes and eliminating any existing benefits to fund desirable new programs or create the right incentives.

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- Theories and research can be implemented only to the extent they are known to the policy makers. There are some challenges on this front.
 - Ministers are not always expected to be experts of the Ministries they head.
 - The same, to a lesser extent, can be said of the public servants at the Deputy Minister level who are normally generalists, moving from one Ministry to another.
- The staff may or may not be au courant with new research in the academic world and even if it is, the ability to translate this research into a language that senior managers can understand is not always a strength at junior levels.
- Some organizational structures may be conducive to evidence-based decision-making, while others may not be.
- Most important, one cannot expect all heads of government to be “leaders”.

Reasons for Gaps in Policy Development

- The reasons for gaps in policy development may be classified into three groups:
 - Leadership
 - Governance
 - Subject matter
- Leadership:
 - Both in elected government and senior public service
- Governance
 - Both political and public service, including how relations among levels of government are coordinated
- Subject matter
 - Nature of research
 - Professional agreement on conclusions
 - Complexity of issues

Conclusions

- There are important gaps in the development of public policy.
- These exist for a variety of reasons.
- We can improve the situation on a number of fronts:
 - However, there are many areas where it could be difficult.
- The economics profession may want to look at the issue and see if they can make progress.