Tradeoffs

Department of Economics
University of Toronto

Fall 2007

A Special Issue on Public Policy

In this Issue

Message from the Chair

by Arthur Hosios, Chair

This special issue of Tradeoffs highlights public policy. Policy questions have always been central to public and academic economic discourse. The recent focus of empirical research on microeconomic policy issues has created a relatively new and exciting "growth area" for the discipline and the Department. Our portfolio in this area is diverse and expanding. Public economics, labour economics, industrial organisation, development economics and even financial economics, at both the undergraduate and graduate levels, now highlight micro-econometric empirical research with policy implications. The Department of Economics currently has a large number of faculty members undertaking policy-relevant empirical and theoretical research. In this issue, they provide articles on child poverty, neighbourhood effects (externalities), income trusts, patents, gun control and the sub-prime mortgage market.

Any area that is 'hot' will offer exciting alternative employment opportunities. This has always been a challenge for the Department. Sadly, two of the contributors to this issue of Tradeoffs are leaving the University: Professor **Jack Mintz** will be chair of the new School of Policy Studies at the University of Calgary and Professor **Heidi Shierholz** has taken a position with the Economic Policy Institute, an economic think tank in Washington, D.C. We wish them much luck as we gear-up to begin searching for replacements.

The remaining sections of this issue will bring you up to date on recent events in the Department, including a progress report on the renovation and expansion of our "home", Max Gluskin House, at 150 St. George Street.

Return to the Index

Undergraduate Program Report

by François Casas, Associate Chair for Undergraduate Studies

There were no major changes in the undergraduate programs in the 2006-07 Winter Session. The new specialist program in financial economics announced in the Spring 2006 issue has now accepted its first cohort and the first few students to graduate from this program convocated in June 2007. Overall undergraduate enrolments are fairly stable, with a total enrolment of approximately 8,000 in undergraduate economics courses at all levels.

Both the Faculty of Arts and Science and the Commerce Program office are undertaking reviews of their curricula and this may impact on our programs and courses in the future.

- At the Faculty level, the Curriculum Review and Renewal Committee has produced a Draft Report which may be found at http://www.artsci.utoronto.ca/main/faculty/curriculum/curriculum%20#DR

Among other recommendations, it proposes a redefinition of breadth requirements, enhancing writing instruction and information literacy and requiring students in every Major program to complete at least one half credit at the 400-level. More integration of teaching and research is also an explicit objective of this review.

- In the Commerce Program, the most significant proposed change is the introduction of three streams (Accounting, Management, Finance/Economics)---details are still being worked out but we expect the new curriculum to be in place for September 2008.

Return to the Index

Graduate Program Report

Adonis Yatchew, Associate Chair for Graduate Studies

As a result of recent funding initiatives by the Provincial Government, universities in Ontario have been able to expand their graduate programs. The Economics Department has taken this opportunity to increase admissions of PhD and Doctoral Stream MA (DSMA) students. Indeed, this year we have 15 new PhD students and 18 DSMA students enrolled in our program. By way of comparison, in past years the number of DSMA students has usually been below ten. In addition, there are 30 regular MA students and 20 entering students in our masters program in financial economics (MFE). DSMA students are required to take at least one core PhD course sequence but benefit from guaranteed funding of tuition and basic living expenses. Regrettably, we are unable to offer regular MA students guaranteed funding. However, this year we have been able to offer most MA students a full teaching assistantship. Summer positions are also often available to MA students, particularly those seeking to continue their studies.

The improvement of our Graduate Program is an ongoing process. Presently, the Economics Department is reviewing its graduate course offerings, the structure of its core program in microeconomics, macroeconomics and econometrics, and the three-week 'math-stats review' that incoming MA and PhD students take prior to the beginning of their first year. As part of this process we will be assessing our program against the best economics graduate programs in North America to ensure that we are maximising the potential of our students.

Finally, after many years of service, our Graduate Administrator, **Sophie Knapik** retired in August, 2007. It is with great pleasure that we welcome **Shannon Elliott** to this demanding and challenging position.

Return to the Index

Thinking About Child Poverty

by Gordon Anderson

The eradication of child poverty has been a policy target in both Canada and the United Kingdom, where child poverty figures of the order of 1 in 6 and 1 in 4 respectively have been cited in recent years, as compared to 1 in 10 and 1 in 7 respectively for people in poverty in the two populations at large. In 1989, without being very explicit, the Canadian House of Commons unanimously resolved to "seek to achieve the goal of eliminating poverty among Canadian children by the year 2000". To date, little has changed---whatever the policies were, they have met with little success. With similar vagueness, the British Government vowed in 2000 to "halve child poverty by 2010 and eliminate it by 2020". Again little has changed to date. These heroic intentions were not matched in the United States where, roughly speaking, 1 in 5 children and 1 in 10 households in the population at large are in the poor group. In that country, the issue prompted a review of how poverty was measured!

It is inescapable that, however measured, child poverty rates are much higher than poverty rates for the population at large in all three societies. Indeed, the child poverty phenomenon emerges in many western societies. Children are over-represented in part because in these societies poorer families tend to have more children and in part because families are formed in the early part of the family income profile, before the household income has reached its peak. By comparison, calculations based upon a Chinese urban data set indicate no similar child poverty problem---indeed, children in the poverty group appear in slightly smaller proportion than does the urban population at large. Family sizes in this data set appear to be more evenly spread through the income distribution than appears to be the case in western societies---essentially, larger families are not such a peculiar feature of poor urban households as they are in the west. This situation appears to have prevailed prior to the one-child policy introduced in 1979---urban households were also more evenly spread throughout the income size distribution during the early 1970's. All of this highlights the point that alleviation of child poverty is a question of removing not just children, but households with children, from the poverty group.

Age and Income	Per Capita Income				
Adults	**Adults with Dependents**				
Clone-age -->	**20**	**25**	**30**	**35**	**40**
20	10				
21	10.5				
22	11				
23	11.5				
24	12				
25	12.5	12.5			
26	13	13			
27	13.5	13.5			
28	14	14			
29	14.5	14.5			
30	15	15	15		
31	15.5	15.5	15.5		
32	16	16	16		
33	16.5	16.5	16.5		
34	17	17	17		
35	17.5	17.5	17.5	17.5	
36	18	18	18	18	
37	18.5	18.5	18.5	18.5	
38	19	19	19	19	

A difficulty with welfare indices in general is that they are a snapshot of society taken at a particular point in time and the wellbeing calculus is based upon the economic status of individuals at whatever stage in their life cycle they are at when the snapshot is taken. To simplistically illustrate this problem, suppose everyone in society is identical, in the sense that they all have identical lifetime income profiles that vary through time but are constant across individuals. Suppose that everyone joins the workforce at the age of 20, earns each year thereafter an income that increases commensurate with their age, retires at age 60 on a pension equal to their earnings in that last year of work, and dies at age 80. The age and income profile of every individual is given by the left-most column of the accompanying table---between age 20 and age 60, each person's age and income are the same. Now suppose that in some year between the ages of 20 and 40 everyone in this society self-clones and has one child which lives for free in the household until reaching the age of 20, joining the workforce and living independently from that point onward. During a 20 year period following the cloning of their child, every person is the head of a two person family sharing their income equally with that child. Per capita family incomes for families cloned by the parent at ages 20, 25, 30, 35 and 40 are given by the respective columns to the right of the first column in the table.

Note that while in the long run scheme of things there is total equality with everyone equally rich or equally poor, poverty and inequality measures will necessarily depend on when in their life-cycle parents have their child. If the poverty line is set at an income slightly below 15, every child whose parent happens to be less than 30 years of age will be impoverished in that year. Children of parents who wait until age 30 to clone their child will never be in the poverty group. If the poverty line is set at incomes slightly below 20, every child whose parent is less than 40 years of age will be in the poverty group in that year. No households with children will ever be in the poor group if all parents wait until age 40 to clone their children.

39	19.5	19.5	19.5	19.5	
40		20	20	20	20
41		20.5	20.5	20.5	20.5
42		21	21	21	21
43		21.5	21.5	21.5	21.5
44			22	22	22
45			22.5	22.5	22.5
46			23	23	23
47			23.5	23.5	23.5
48			24	24	24
49				24.5	24.5
50				25	25
51				25.5	25.5
52				26	26
53				26.5	26.5
54					27
55					27.5
56					28
57					28.5
58					29

In this society measured inequality and child poverty are purely a function of when in the generation cycle the snapshot is taken. In terms of peoples' life experiences there is complete equality---no one suffers or gains from the slings and arrows of outrageous fortune, and no particular child is peculiarly disadvantaged relative to its cohort. But the poverty and inequality indices indicate a problem. Children are poor because they are children---it is not an issue of being born into a disadvantaged family. The extent of measured child poverty and inequality depends upon how families are formed, with family formation late in the life-cycle eliminating child poverty and family formation early in the life-cycle precipitating it. It is no surprise that households headed by young single-parent mothers are a significant component of the poor group in western societies whereas they are a much smaller component in the Chinese data set where such mothers are more frequently observed within an extended household.

The current measurement of the poverty state also presents some problems for attaining the above-mentioned policy objectives. Poverty currently tends to be measured as a relative concept, 60% of median income being a favourite baseline cut-off for many poverty indices. Of course, as median income rises with economic growth so will the poverty cut-off. Thus, without a precipitous shrinkage of the income distribution around the median (in fact, empirically sustainable random walk with drift models of economic growth predict increased income variation), there will always be a poverty group to worry about in the long run. Relative rather than needs-based definitions of poverty mean that it is not practicable to 'grow' the income distribution out of the poverty region, following a 'rising tide floats all the boats' policy for poverty alleviation. A less-politically-palatable egalitarian 'shrinking' of the income distribution around its growing median is needed to attack the problem.

There is a sense that, without changes in the way that families are formed, children will inevitably be a significant part of any poor group. Had we viewed poor children over their complete life cycle, the prospects for some of them would have located them higher in the wellbeing spectrum---their poverty is transitory rather than permanent. Others will, of course, be permanently poor throughout their lives---what Ravi Kambur and Nobel-Prize-Winner Joe Stiglitz called the 'dynastically poor'. A recently advocated addition to growth and redistributional policy solutions is an attack on the dynastic nature of child poverty---the notion that children of economically poor parents grow up to be economically poor parents themselves. There is a sense in which it accepts the presence of children in the poverty group but attempts to alleviate the consequences of that for the child's future. The idea is to make a child's future less dependent on its parental circumstances. In the spirit of an equal opportunity imperative, the intent would be to 'level the playing field' for the next generation.

In formalising this imperative, Yale University economist John Roemer remarked that equal opportunity is "probably the most universally supported conception of justice advanced in societies." The concept has its roots in a recent egalitarian political philosophy which sees differential outcomes as ethically acceptable when they are the consequence of individual choice and action but not ethically acceptable when they are the consequence of circumstances beyond the individual's control. In effect the objective of such policies is to increase generational mobility, to make children's future less dependent upon the nature of the parental circumstances under which they find themselves. Examples of such policies are increasing public school investments in the offspring of low socio-economic status parents, changes in family law which bring material support for the children in single parent situations up to those in more standard family environments, and improving accessibility to health services and good environments for low income households.

What does all of this imply for our heroic policy makers? First we need to be clear about the policy objective. Taken literally, the elimination of all children from the poverty group is a horrendous task requiring the movement of all households with children to somewhere above the poverty cutoff. Practically it would require considerable narrowing of the income distribution, implying income transfers of an enormous magnitude. Even the more limited objective of making the incidence of poverty among children no greater than it is among the population at large presents a considerable task. Longer term policies encouraging households to be of a similar size throughout the household income distribution raise all sorts of ethical concerns, and shorter term income transfers away from smaller richer households to larger poorer households are unlikely to be politically palatable. Policies of 'levelling the playing field' alleviate the symptoms rather than deal with the problem but, then again, society has to decide whether it is the symptoms of child poverty or its actual existence that is of concern.

Notes

The Chinese urban data were obtained from the National Bureau of Statistics as part of the project, Income Inequality During China's Transition, organised by Dwayne Benjamin, Lorne Brandt, John Giles and Sangui Wang. It should be stressed that these are urban data---if rural households were included, a child poverty problem would almost surely be indicated.

Return to the Index

Does Where You Live Affect Who You Are? A Brief Summary of Neighbourhood Effects Research

by Philip Oreopoulos

The possibility that positive social interactions may be more likely to happen in some neighbourhoods than in others intrigues many social scientists and policy-makers. Social programs that focus on targeting individuals within particular communities have the potential for effectively benefiting a larger number of people than programs that target people without regard to the communities in which they live. Discouraging a few from committing crime, for example, may make everyone in a neighbourhood feel safer. Discouraging some youth from smoking may sway their friends not to smoke, and supporting a few residents to find work may inspire others to do the same.

Julius Wilson of Harvard University was the first to suggest that a vicious cycle of crime, unemployment, and poverty perpetuates the quality of life for low-income households living in low-income areas. Wilson argued that adults in such neighbourhoods experience a social isolation that excludes them from the job network system permeating other neighbourhoods, and that children in these communities mostly interact on a sustained basis with people in families having parents unemployed and on social assistance, and with discouraged teachers. Targeting these communities with additional resources by redevelopment or by subsidising job and business creation, he argued, might help reverse these trends.

Testing the impact neighbourhoods have on various social-economic outcomes unfortunately requires having to determine whether such a relationship is actually due to surrounding conditions or due to underlying circumstances that brought families to these neighbourhoods in the first place. This is not easy, especially because families choose where to live (subject to a budget constraint). Much of the early research on neighbourhood effects relies on comparing individuals that look similar on paper, but nevertheless live in contrasting environments. Differences in these individuals' outcomes are attributed to differences in their neighbourhood environments. The bulk of this literature finds large differences. But this approach essentially requires the assumption that similar individuals living in different neighbourhoods do so for reasons unrelated to subsequent employment, education attainment, or other outcomes. The many location options that face households and the many factors unobservable to a researcher makes this assumption tenuous. As a result, most researchers have moved away from this approach.

Several recent studies attempt to overcome these empirical challenges by focusing on individuals in public housing. People living in public housing receive large rent subsidies, but have little choice over where they live. After sometimes years on a waiting list, applicants are typically assigned a house or apartment within a city.

In 1994, the U.S. Department of Housing and Urban Development created the Moving to Opportunity (MTO) program. Volunteers (mostly Black and Hispanic single mothers) from some of the worst public housing projects in five U.S. cities (Boston, New York, Baltimore, Chicago, and Los Angeles) were randomly assigned into two basic groups. One group was offered vouchers to use for rent in the private household market, and provided assistance to move into more middle-income residential areas, where fewer than 10 percent of households were below the poverty line. The other group was not given any voucher, and had to move on their own if they wanted to leave. Most families in both groups initially resided in census tracts with more than 50% poor.

By far, the single most important reason for wanting to participate in the MTO study was to move away from crime. It is perhaps not surprising that the most dramatic effects of the experiment were on parents' neighbourhood satisfaction, feelings of safety, and mental health. Aside from these gains, however, the MTO experiment finds virtually no other positive effects from moving to a low poverty neighbourhood after four to seven years have elapsed. The offer of a housing voucher had no effect on adult earnings, employment, or receipt of public assistance. Children in the treatment group (the one receiving vouchers and assistance to move) also showed no improvement on a wide range of school performance measures that included achievement scores, high school dropout, and post-secondary enrolment. There were, however, some important gender differences in the effects on a variety of behavioural and health outcomes. Some girls in the treatment group experienced moderate reductions of stress and depression, as well as a decrease in arrests for violent crime, while boys experienced an increase in behaviour problems and drug use, along with a rise in arrests for property crimes.

In another study using public housing, Brian Jacob (also from Harvard University) examines families offered housing vouchers to move from buildings in Chicago housing projects set for demolition. Interestingly, families that did take up the voucher often relocated close to their original residence, and very few students changed schools. Still, average census tract poverty rates for families given the vouchers did fall significantly. Comparing education attainment outcomes for children that moved because of building closures, Jacobs finds that, after five years had elapsed, building closures had no impact on children's math test scores and school attendance, retention and drop-out rates.

The varied types of public housing projects in Toronto provide another way of examining neighbourhood effects in a quasi-experimental setting. Before the early 1980s, Toronto public housing applicants had virtually no say over which project was offered to them. Some ended up in a few very large projects accommodating several thousand people, like Regent Park and the Jane and Finch Corridor, while others ended up in projects near more residential and middle-income areas, in townhouses lodging far fewer numbers.

In my own recent work I used administrative data to track the progress of children that had grown up in these projects to when they became more than 30 years old. I found no difference in children's' earnings, use of unemployment insurance or social assistance across projects. While living conditions and exposure to crime varied substantially, no differences in eventual earnings, frequency of unemployment, and public assistance were found, even among youths that had lived in projects more than 5 years.

This recent research suggests that residential environment matters most to an individual's mental health and exposure to crime, but has little influence on self-sufficiency and child development. Overall family differences seem to be much more important determinants of career success and job security than neighbourhood environment.

These conclusions seem to contradict other research that finds that individuals interacting in small groups are influenced by average characteristics of those groups. Caroline Hoxby, now at Stanford University, finds that third-graders perform better when a class contains more students of the same gender. At Dartmouth College, Bruce Sacerdote finds small but significant effects of one roommate's GPA on another's, and if one roommate joins a fraternity/sorority, the other is significantly more likely to join. Harvard Professor Michael Kremer, in a National Bureau of Economic Research Working Paper with Dan Levy, also finds that freshmen assigned to roommates who reported drinking in the year prior to entering university had one quarter-point lower GPA than those assigned to non-drinking roommates. But these authors also find no relationship between students' own GPA and first-year roomates' high school grades, admission test scores, or family background. Scott Carrell (also currently at Dartmouth College) and a number of collaborators look at students at the United States Air Force Academy who were randomly assigned to 36 squadron groups with a few dozen students in each group. They find that cadets in academically better squadrons (on average) do substantially better on tests than similar cadets in academically worse squadrons.

One possible explanation for reconciling why living in a relatively advantaged neighbourhood does not seem to matter while living with a relatively advantaged roommate does is that it is easier to choose who to interact with in a neighbourhood of hundreds or thousands of people compared to choosing who to interact with in a group of a few dozen or less. Compared to the entire set of people we connect with regularly and in important ways, encounters due to residential location may be trivial. If I choose to limit my exposure to my neighbours, it is relatively easy to do so. I have much less chance avoiding my roommate.

Nobel-Prize-Winner George Akerlof (at the University of California, Berkeley) and Rachel Kranton (at the University of Maryland) argue that a person's social identity (which group he or she relates to) is a key (or the key) factor influencing many important outcomes related to well-being. How one's identity is formed is not well understood and currently being studied. But the current work on neighbourhood and peer group effects suggests that small group encounters matter much more in influencing a person's identity and behaviour than the a person's community at large.

Return to the Index

Income Trusts: A Story of Policy Inaction

by Jack Mintz --- J. L. Rotman School of Management and Department of Economics

In *March of Folly*, the late Barbara Tuchman describes how political leadership can fail to take action even when warned that inertia is not a solution. Public policy inertia had set in with the growth of income trusts as a means to reduce taxes. As a result, hundreds of thousands of Canadian investors in income trust units saw their wealth cut by almost $30 billion when Jim Flaherty, Minister of Finance, announced on Halloween night, 2006 that income trusts would be taxed like corporations. Millions were adversely affected by the consequences for their pension plans.

It did not have to happen that way. There was a failure of successive governments to deal with this tax issue in a timely manner over the past ten years, despite the warnings. Here is the sorry tale of policy inaction.

The first income trusts were developed in the real estate sector several decades ago when Canada adopted rules to allow passive investors to buy a share of large property developments rather than investing in small apartment blocks or malls. By the end of the 1980s, the first royalty and business trusts reared their heads to gain the tax advantages available with the trust model. In the mid-1990s, income trusts mushroomed, reaching $8 billion by May 1997. The Technical Committee on Business Taxation, appointed by Minister of Finance Paul Martin, warned the government in its 1998 report that 'tax base erosion' and 'unfair competition' among businesses will require adjustments to tax policy. The Finance Department chose not to react after the Technical Committee Report was published.

With the dot-com boom in stock markets in the late 1990s, little interest was paid to income trusts. When stock markets turned down in 2001, however, trusts became highly popular with investors. The high cash yields---often 10 percent of market capitalisation or more---were both a return on and return of capital as distributions were often in excess of profit earned resulting in a reduction in the capital held in the business (the total return on investments in income trust were therefore less than the cash yields). The cash yield appeared to provide a much better return on savings compared to bonds and stocks. Trust capitalisation grew to almost $120 billion by the end of 2004.

How do trusts work? A corporation is reorganised by placing an entity called a trust between the owners (investors) and the corporate entity. The trust, owning securities of the business, would receive interest, dividends, leasing income, royalties or capital gains that would be subject to the top personal income tax rate in the province where the trust resides. However, when the trust distributes its income to unit holders, no tax will be paid by it or the corporation---instead, only investors would pay personal tax according to type of income received (ordinary income, including interest, leasing income and royalties would be fully taxed while dividends and the capital gains would taxed at the more preferential rate). Any distribution in excess of taxable income earned by the trust would be exempt from personal taxation although the distributions in excess of taxable income would reduce the cost basis of the units, thereby resulting higher capital gains taxes once the trust units were sold by the investor.

Effectively, the trust allowed the corporate tax to be bypassed by highly capitalising an operating company with debt, thereby eliminating most if not all of the corporate income tax since interest paid to the trust is deductible from corporate income. Two-thirds of the business income flowing through the trust was fully taxed as ordinary income, 30 percent as a return of capital and the remainder as dividends in the hands of unit holders (as estimated by Finance Canada for 2004). Further, if the assets were held by the trust and leased to the company, federal and provincial capital taxes could be avoided as well.

Significant tax reductions could therefore be achieved by corporations converting into trusts. The effect of the corporate income tax---assessed at a 43 percent rate on average across provinces prior to 2000, falling to 35 percent today---combined with personal income taxes on dividends resulted in combined tax rates on corporate distributions of about 55 percent, which is significantly more than the tax levied on trust distributions. Canadian investors roughly paid tax at a 40 percent rate on trust distributions unless the income was sheltered in pension and RRSP investments, which pay no tax on income when received. Non-resident investors paid a 15 percent withholding tax to the Federal Government on both corporate dividend and trust distributions although they could credit the tax against personal income tax levied by their resident government. After President Bush cut the dividend tax to 15 percent, the income trust distributions, treated as dividends by the US, would therefore be taxed little once Canadian withholding tax was credited against US tax.

With a growing interest in trusts, the University of Toronto Capital Markets Institute held a one-day conference in September, 2003 that was widely reported in the press. In a paper written by Lalit Aggarwal and myself (later published in the Canadian Tax Journal in 2004), we estimated that the tax benefits to investors from trust conversions reduced both federal and provincial tax revenues by about $500 to $600 million annually after taking into account various adjustments. We also showed that capital raised through trust public offerings flowed primarily to industries with low-growth and lower rates of return on capital, thereby raising questions about the impact of trust conversion on capital market efficiency.

Ralph Goodale, Minister of Finance under the Paul Martin Government, decided to introduce measures in Budget 2004 to slow down the growth of trusts. Pension plans would be limited in the amount of trust units that could be held as a share of assets. A bright line test was proposed to ensure that trusts could not be owned by more than 50 percent by non-residents. A new withholding tax on capital gains earned by non-residents would also be levied. The first two of these proposals were withdrawn---the first because it discriminated against pension plans and the second because it was impractical to implement since businesses do not know who owns units indirectly through third parties.

In September 2005, the Liberal government started a consultation process on flow-through entities including trusts and partnerships by publishing a discussion paper that was fairly neutral in its discussion of the issue. This process did not strike concern in markets and proceeded well until Gordon Nixon mused about the Royal Bank of Canada becoming a trust after answering a reporter's question. Panic set in, with the Department of Finance issuing a declaration that the Canada Revenue Agency would no longer give advance rulings for trusts. While this would have little effect on new conversions since advance rulings were requested only when some 'new' wrinkle was attempted, the announcement was like a shot over the ship's bow---the market value of trust units sharply declined.

While the Liberal Government thought they had until spring of 2006 to resolve the issue, it was clear by December, 2005 that an election would soon occur. Rather than leaving the trust issue on the table before an election, the Minister of Finance decided to announce a new dividend tax credit for high-tax corporate income that would create neutrality for tax-paying Canadian investors holding corporate and trust securities. Markets cheered and both stock and income trust unit values increased. The tax cut was popular and the government could claim it was improving capital market efficiency.

However, without touching non-residents and pension/RRSP account holders, the new dividend tax credit would only go part way in reducing incentives to convert from corporations to trusts since retirement savings accounts and non-residents would gain sharply from bypassing the corporate tax.

It did not take long. Several new trusts were formed, such as CI Financial and Aeroplan. But the blockbusters came in the fall of 2006 with Telus and then BCE announcing conversions, resulting in potential long run corporate tax savings in excess of $1 billion.

The press went wild over the BCE conversion and clearly the heat was on for the Government to confirm whether policy will change or not. Many journalists and financial watchers asked for a new revenue cost estimate. With over $200 billion in trust capitalisation and a further 25 percent with the Telus and BCE conversions, it was not too difficult to estimate the new revenue cost. I suggested that federal and provincial governments lost annually $700 million in corporate and personal tax revenue with conversions by September 2006 with a further long-run annual loss of $400 million resulting from the two telecom conversions. With the new dividend tax credit, the revenue loss with conversions was almost nil as expected for taxable accounts. For RRSP and pension plans, the annual revenue loss is $800 million, even though the federal and provincial governments would obtain some additional personal taxes on increased pay-outs from pensions and RRSPs. The revenue loss associated with non-resident ownership was about $300 million. The Department of Finance's own estimate of federal losses amounted to $800 million, somewhat above my estimate.

On October 31, 2006, the Minister of Finance announced a new regime with the intention of improving capital market efficiency and reducing the scope for revenue loss arising from trust conversions. Publicly-traded trusts, except for eligible real estate investment trusts, would be subject to an average federal-provincial corporate income tax rate on their 'non-portfolio earnings' defined as income from their business activities (portfolio earnings from their investment activities would remain subject to past trust rules). Distributions from non-portfolio earnings would be taxed like dividends, with a four year holiday for existing trusts until the new rules apply. Portfolio earnings would still be subject to excessive personal income taxes, thereby discouraging re-investment of taxable income, a policy which will likely force trusts to return to the corporate world.

As of this date, not all the rules are known so it is difficult to predict how trusts will respond in the next few years. It was perhaps unfortunate that the decision was to level up businesses to corporate taxation rather than level down to trust taxation. The government could certainly help investors if they bring in a refundable dividend tax credit that would provide cheques to low-income investors and pension/RRSP owners who pay corporate tax on distributions they receive. A refundable dividend tax credit, used in the UK in the 1990s, for example, would be a tremendous boost to those trying to accumulate wealth for their retirement years. The policy would be a tax cut for investors but it would result in levelling down taxes on corporations to the previous trust treatment and have the virtue of improving capital market efficiency.

So the story is not quite over yet. If the government had taken earlier action far fewer investors would have been hurt on that Halloween night. The one solace is that we might achieve a far better tax regime to support efficiency in capital markets.

Return to the Index

The Economics of Patents

by Carlos Serrano

The mainstream view on patent policy is that without patents firms will not innovate---as soon as an innovation is made public, other firms will replicate it and competition will erode profits, making the R&D costs non-recoverable. An intrinsic characteristic of innovations is that they are not only useful and valuable for their inventors, but they can be building blocks for future innovations created by others. For these reasons, the patent system provides, for a limited period, monopoly rights to the holders of patents. A prime question in economic policy is how to design a patent system that provides incentives to innovate, facilitates diffusion of technology and minimises the inefficiencies associated with monopoly rights offered to patent holders. Needless to say, this is important because the creation of ideas and their diffusion and adoption are fundamental determinants of economic growth.

Evaluating the pros and cons of patents is ultimately an empirical question. One has to estimate both the social and private value of patents and determine how much of this value is due to the the possibility of the transfer and licensing of patents. On a recent trip to Minneapolis I met with representatives of three technically oriented firms. The first is a large firm in the agricultural support activities and products industry, the second is a small designer, developer and manufacturer of medical devices, and the third is a large diversified technology company. We discussed the role of patents in their innovation strategy and in the acquisition or sale of knowledge across firms' boundaries. While admitting that that patents might not necessarily be crucial to them, they all agree that patents certainly play an important role in their decision making, particularly with respect to the products they develop, the internal organisation of their firms, and the diffusion of technology.

Product Development and the Internal Organisation of the Firm

Consider first the link between intellectual property and creation of innovations and new products. There is no conclusive empirical evidence supporting the view that stronger intellectual property rights encourage more innovation. The anecdotal evidence is in both directions and the answer is not clear at least for two reasons---first, we might not be asking the right question, and second, we actually do not know much about the sources of innovation. This is why empirical researchers like myself meet with people in business firms. My interviews suggests that patent policy changes in the USA during the mid-1980s, and recent advances in technology, may have increased the role of intellectual property in the decision making of some firms.

In the first firm I visited, the one within the agricultural support activities and products industry, I was told that in the 1980s intellectual property was not a critical aspect of their business strategy, but the effects of intellectual property in the industry accelerated in the 1990s. They said that the effects of intellectual property have concentrated in products and markets in which there are no comparative advantages sustainable by long-term relationships with farmers and consumers, location-specificity of facilities, and so forth. The firm has experimented with important product development and internal organisational changes during the 1990s. A large number of crop varieties can now be sustained because each of them has its own patent. And the internal organisation of the firm is designed to facilitate the interaction between the employees, farmers and consumers, so that researchers can create new crops targeting their needs. It was also argued that the benefits of supply chain management from famers to product development have gained value, in part because of the expansion and security of intellectual property.

Other firms say that intellectual property is critical for their business. The third firm I visited focuses on process innovation, designing new products combining existing innovations and then bringing them to market. The comparative advantage of the firm is in obtaining new products that consumers might find useful. In general, the innovation involves creating a new product rather than in coming up with a major invention. Consequently, it is argued, intellectual property protection is fundamental for the firm's profitability and innovation strategy.

The market for patents

There are firms that sell patents outright or retain ownership but licence them to others. For instance, the second firm I visited, a medical devices specialist, licenses its products to a small number of firms that are operating with large sales forces. I was told that they find it optimal to specialize in designing and, to some extent, manufacturing the devices, and let others with large sales forces reach medical doctors. The benefits of this strategy depend on the strengh of the firm's patent portfolio. The representatives tell me that the average mark-up of plain manufacturing is about 20%, while owning the intellectual property increases their mark-up to a level of 60%. The patent licences they pursue are quite sophisticated, tending to be exclusive (to one firm) and restricted to a specific medical application. Similar devices for other medical applications can be licensed to other companies.

Not surprisingly, the market for patents is large. In a recent study using US patents I found that about 18% of all patents granted to small innovators---that is to firms that were granted no more than five patents in a given year---are sold at least once over their life cycle, and the quality-weighted percentage is even higher. Note that this number represents the transfer of the ownership of a patent and does not consider other forms of technology transfer such as licensing, employee mobility, etc.

A well developed market for patents should be of benefit to consumers as well as firms. The market for patents allows firms that are particularly good at research to specialize and sell or license their patents to other firms that might have a comparative advantage in production and/or distribution. The efficiency gains generated through the market could potentially offset efficiency concerns associated with the patent system such as the effects of monopoly rights on product pricing.

There are, however, a number of frictions leading to inefficiency in this market. Representatives of both the first and third firms argue that asymmetry of information with respect to the value of an innovation and uncertain property rights over a patent (e.g., validity or potential litigation) are major concerns in intellectual property transfers. For instance, the representatives of the third firm say that once there is a potential acquisition interest in a patent portfolio by a company that shares their core value of growth and sustainability, they put an special emphasis on the validity and risk of infringement of the patents. Representatives of the first firm showed particular concern about asymmetry of information with respect to the value of a particular targeted innovation. In these circumstances, they tend to minimise the use of fixed fees and favour royalty rates connected to the revenue of the potential product.

Value of patents

The literature on estimating the value of patents has advanced substantially in the last two decades. The methodology to estimate the value of patents based on patent renewal fees was originally created by Ariel Pakes of Harvard University and Mark Schankerman of the London School of Economics in the mid-1980s. Pakes and Schankerman examine the problem of a patent owner deciding in each period whether or not to pay the renewal fee and thereby extend the life of a patent. Subsequent work by others has introduced information on international patent applications and patent litigation.

Recently, I have extended the Pakes and Schankerman model to allow for the transfer of patents. The new theory is grounded on the costs of adopting technology and the potential gains from trade in reallocating patents across firms. The contribution of my theory is to introduce into the model, in each period, an alternative potential owner who may have greater valuation for the patent than the current owner at the beginning of a given period, but with costs of adopting the new technology. Whereas the Pakes and Schankerman model has one margin---should the patent owner pay the fee for renewing the patent---my model has a second margin---should the cost of technology transfer be paid to reallocate the patent to an alternative owner.

I have estimated a model of patent transfers based on the above theory and found that the market for patents represents a significant portion of the value of patents. The most current work on this is studying the links between the market for patents and the role of specialisation in research, the effect of taxation and patent policy.

What is Canada's Innovation Performance over the Last Decade?

Finally, we can review the current state of innovation in the world and discuss some insights for the near future. As of 2003, the USA is the most dynamic economy in the world, followed by Japan, and more distantly by some Western and other Asian economies. Canada's innovation performance over the last decade has been good but, as of 2002, the number of South Korean patent applications in the USA has exceeded the number of Canadian ones.

The most remarkable development concerning innovation during the last decade has been the outstanding performance of some Asian economies such as, for example, Taiwan and South Korea. For instance, yearly patent applications by Western economies and Japan in 2003 were between 1.7 and 2.2 times higher than in 1991 (depending on the country), while South Korea's yearly patent applications increased by 7.8 times over the same period. As a result, South Korean inventors applied for more patents in 2002 than Canadian inventors for first time, and since 2003 South Koreans applied for more patents than did inventors in the United Kingdom.

Despite the significant advances in innovation of some Asian economies, there remains a very large challenge to reach the USA level. Moreover, anecdotal evidence suggests that some of the patented innovations by these countries tend to be small improvements in technology rather than breakthrough discoveries. Thus, in relative terms, the difference in research output between some these countries and the USA might be even larger than the indicated by the absolute number of patent applications.

On the other hand, I expect that, in the near future, countries like South Korea, China and other Asian economies will catch up not only in the absolute number of patents, but also in their technological capabilities. One is likely to see changes in the patterns of specialisation in research and the diffusion of technology across the world. Today, technology is mostly developed by Western firms and then transferred to Asian countries while in the future the direction of knowledge flows might be in both directions. These potential changes in innovation and diffusion of technology will not only be good for Asian economies, but for Western economies as well.

Return to the Index

Tackling Gun Crime: What Economists Have to Say

by Heidi Shierholz

In 1996, John J. DiIulio, Jr. (at the time a Professor of Politics and Public Affairs at Princeton University) wrote an article in the Journal of Economic Perspectives entitled "Help Wanted: Economists, Crime and Public Policy" in which he appealed to economists to 'conquer' the field of criminal justice by training their quantitative skills on the analysis of policy-relevant questions about crime. In the past decade, economists have answered this call, making substantial contributions to the field of criminal justice.

Today in Canada, the apparent expansion of gun crime and the public outcry demanding something be done to contain it have created a situation where the contributions of economists to the study of crime are of critical importance. In this article, I will discuss common proposals aimed at tackling gun crime and present evidence offered by economists on the effectiveness of these approaches. First, however, I present recent statistics on homicide in Canada to clarify some potential ambiguities about the context in which this debate is taking place.

The homicide rate in Canada in 2005 was 2.04 victims per 100,000 population. While this was an 8.5% increase over the average of the previous ten years (1.88 victims per 100,000 population), it was still 24% below the recent high of 2.69 in 1991. When considering only shooting deaths, the rate in 2005 was 0.69 victims per 100,000, an increase of 21% over the average of the previous ten years (0.57), but 29% below the recent high of 0.97 in 1991. Toronto, which received a tremendous amount of media attention in 2005 for a number of high-profile shootings, had a homicide rate of 1.96, a 15% increase over the average of the previous 10 years (1.71), but again the rate was 23% below the recent high of 2.55 in 1991. The Toronto gun death rate was about 76% above the average gun death rate of the last 10 years (0.63), but was only 3.7% above the recent high of 1.07 in 1991. In sum, while homicide rates (and especially rates of homicide with a firearm) experienced upswings in the last year, the current levels are not out of line when compared with recent trends and it remains to be seen whether these numbers represent substantive increases in homicides or whether they are simply random fluctuations around what is actually a downward trend.

Whether or not there have been substantive increases in gun deaths, the intense media coverage of a number high-profile cases in 2005 fuelled a public outcry as well as promises at every level of government to crack down on gun crime. 'Tough on crime' initiatives from the entire political spectrum have included similar proposals, such as strengthening gun control laws, increasing mandatory minimum sentences for gun crimes, putting more police on the streets, and supporting community-based prevention and intervention projects that target at-risk youth. Economists have made important contributions to assessing the effectiveness of at least the first three of these.

Handgun Bans

Currently in Canada there is a prohibition on some handguns, primarily those with barrels shorter than 10.5 cm. All other handguns are restricted, which means an individual may get a handgun license if she passes a background check and can demonstrate that the weapon is part of a collection or that it will be used in target-shooting practice or competitions. Typically, handgun initiatives propose a sweeping ban of all handguns.

What do economists have to say about gun legislation and crime? Mark Duggan at the University of Maryland has conducted the most rigorous study on the relationship between gun ownership and crime and finds evidence that higher rates of gun ownership may be a causal factor in higher homicide rates. However, there is currently no good evidence that gun control laws reduce homicide rates. For example, careful studies find no evidence for an impact on homicide rates of the 1976 ban on handguns in Washington, D.C. or of the 1994 U.S. Brady Handgun Violence Prevention Act. The apparent inconsistency between the findings that higher rates of gun ownership are associated with more homicides and that gun control legislation does not appear to reduce homicides can be largely reconciled by noting that approximately 75% of handguns used for violent crimes in Canada are illegally held, with the majority being smuggled. There is an active black market for guns in North America and there is currently no good evidence to suggest that restrictions on legal gun ownership will reduce the use of guns by criminals. Though careful comparisons are not available, it is possible that policies directly targeting the illegal firearms market may be a more efficient way to get guns out of the hands of criminals than by strengthening gun control laws in conventional ways.

Tougher Sentences for Gun Crimes

Perhaps the most common proposal for combating gun crime is to increase mandatory minimum prison sentences for individuals who use firearms to commit crimes. In June 1982, voters in California passed Proposition 8 which put into effect sentence enhancements for people convicted of serious felonies (murder, rape, robbery, aggravated assault with a firearm, and burglary of a residence). Initial research suggested that this policy was responsible for a subsequent drop in serious crime in California, but a reanalysis offered evidence both that the comparison groups used in the study are inappropriate and that crime would have declined in California regardless of the implementation of the policy. Thus, there is currently little evidence of a deterrent effect of this sentence enhancement policy.

Economists David Lee and Justin McCrary, in a National Bureau of Economic Research Working Paper, study the question of the deterrent effect of sentence enhancements by making use of unique data from Florida and of the fact that in Florida when an individual is charged with a crime that happens before his 18th birthday the case is handled by the juvenile courts, but if the offence is committed on or after his 18th birthday the case is handled by the adult courts, which are known to hand out much stiffer sentences. This means that effectively, when an individual turns 18, there is an immediate 'sentence enhancement', and thus if sentence enhancements are an effective deterrent there should be a discontinuous drop in offence rates at an individual's 18th birthday. However the researchers found no significant drop in offending at age 18 and conclude that increases in incarceration lengths are unlikely to significantly deter criminal behaviour.

More Police on the Streets

A third common proposal for addressing gun crime is to increase law enforcement budgets for the purpose of getting more police on the streets. By attempting to rigorously address the reverse causality problem (specifically, the fact that when crime increases more police are hired) that had plagued earlier studies on the effect of more police on crime rates, economists have provided convincing evidence that more police are indeed associated with reductions in crime. In their 2000 study using nearly 30 years of monthly data from New York City, Hope Corman of Rider University and H. Naci Mocan of Louisiana State University find that a 10% increase in the growth rate of arrests generates a 3.4 percent decrease in the growth rate of murders. In a 2002 study, University of Chicago Economist Steven Levitt finds that a 10% increase in the number of police is associated with a 9.1% decrease in murder. While neither of these estimates specifically address gun crime, they strongly suggest that getting more police on the streets is likely to be an effective deterrent.

In sum, of the three policies discussed above, the clear conclusion is that the policy with the most potential to reduce serious crime is to hire more police officers. Thus, while economic theory predicts that an increase in either the likelihood of getting caught or the severity of punishment if caught should deter criminal behaviour by raising the expected cost of committing a crime, the empirical evidence suggests that criminals---a population generally considered to have very high discount rates---are more likely to be deterred by the likelihood of punishment than by the length of the sentence, and thus the most efficient use of taxpayer dollars in the reduction of gun crime is to get more police on the streets.

Return to the Index

The Sub-Prime Crisis

by Andreas Park

During this summer the so-called sub-prime mortgage crisis caused world-wide turmoil in markets. What happened and how can economics help us to understand this crisis?

The sub-prime crisis has actually two components: first, the widespread concern about sub-prime mortgage loans and their impact on the economy and second, the prospect of a sudden liquidity crisis in financial markets.

First, what is sub-prime? In the US (and also in Canada, but subject to different rules), people obtain a credit rating that is on a scale from 300 to 800. Those with ratings below 620 points are considered sub-prime, and this segment constitutes about 15-20% of the total number of people rated. Items affecting one's credit rating are, among other things, the kind of loans that one holds (short- and long-term, credit card, automobile, etc.), the history (timeliness) of payments, and the length of the credit history. While income, age, gender, etc. are relevant factors in the loan approval process, these factors, contrary to common belief, do not affect the credit rating. Of course, people with low and unstable income often are the same as those with a low credit rating and this is why low-income borrowers are usually associated with sub-prime loans.

Another factor often cited is the proportion of equity that borrowers bring to the table when buying a house. The usual standard requirement is that one must have 20% of the price available in cash when purchasing a home. Recently, however, in the US (and increasingly in Canada) people often have far less --- 5%, 0% or even 'negative equity' are not uncommon. Moreover, lenders often also require that the loan be insured (in Canada, such borrowers are usually required to buy CMHC insurance). Sub-prime loans are often associated with borrowers that have very low equity in the mortgaged home.

So why is low equity a problem? The 20% of the house price that borrowers normally have to put as a down-payment should be thought of as a buffer that the lenders require to cover the cost of a default. If the borrower defaults, the lender has to take possession of the house and subsequently sell it. Selling is costly, in part because of the commissions charged by realtors. As long as house prices are increasing, low equity is not a problem---capital gains will cover costs to the seller of a borrower's default. When prices stagnate or decline, however, lenders may have a problem.

Currently, the sub-prime market constitutes about 14% of all mortgages in the US (in Canada this market is smaller than 3%, and most Canadian sub-prime loans are merely borderline sub-prime). About 8% of these sub-prime loans are currently in delinquency (compared to about 0.8% of prime loans). This implies that sub-prime loans in delinquency constitute about 1% of the US mortgages. While this is a large dollar-amount at risk, one should note that even if all of these mortgages in delinquency result in a default, a large proportion of the funds loaned will be recovered through the sale of the underlying property. So compared to the size of financial markets world-wide, there is but a tiny amount at risk, and this makes it all the more surprising that this micro-problem should affect financial markets on a large scale. There is some perception that the rise in delinquencies is caused by stagnating or falling house prices, but this is only an indirect effect. Home-mortgage interest rates fluctuate with interest rates in the economy. When interest rates rise, payments required by people who have flexible-rate mortgages or have to renew their mortgages after a 5 year term also rise, making it harder meet obligations. Trends in house prices, however, have very little influence on these payment troubles except that, as explained above, falling house prices increase the probability that lenders suffer a loss when borrowers default. Nevertheless, for sub-prime borrowers who, given lax approval, were allowed credits that failed to allow for a sufficient buffer in their disposable incomes, a rise in interest rates can have a discrete, disproportionately large and devastating effect. This is why sub-prime borrowers have traditionally been excluded from the mortgage market.

While there is certainly an effect, and the sub-prime market now is much larger than it was 6 years ago, the plain numbers seem not to warrant an enormous effect on financial markets. So what has happened? Why do we hear that financial institutions have billions and billions of dollars in losses on their books?

To answer this question, we need to talk about recent financial innovations. Mortgages are no longer held by the bank or mortgage broker who arranged the deal. Instead, mortgage payments are bundled, repackaged and then sold as composite assets, a process called securitization. In itself this is a very sensible and desirable process in that it allows creditors great flexibility and a better diversification of risk, and thus makes loans cheaper for borrowers. For example, imagine a small bank in a mining town. If the local mine is in trouble, so will be the bank. But if loans from this area are pooled with many others that not related to the mine, and are then bundled, split and re-sold to many investors, the troubles of this one mine will have only a small effect on each investor. This helps everyone---the market in mortgage-backed securities has more than quadrupled since 2001.

But the securitization process does not end there. Payments from these so-called mortgage-backed securities are used as 'collateral' for other loans which then become so-called collateralized debt obligations (CDO's). Of course, these collaterals are only as secure as their underlying payment streams. As a measure of this risk, mortgage backed securities are usually given a rating by major credit rating agencies such as Moody's or Standard and Poor's, and most were rated as 'very secure'. Lately, these ratings are becoming increasingly questioned, especially since firms doing these ratings do not make public their methodologies. Increased defaults on sub-prime loans increases the risk and the interest rates charged for mortgage renewals which, in turn, increases defaults by sub-prime borrowers who cannot pay these higher interest rates. This creates, at the bottom end of the market, a large simultaneous occurrence of defaults which feeds on itself, rendering efforts at diversification ineffective. Adding to these difficulties is the unprecedented aggressiveness of mortgage brokers in recruiting borrowers---in 2006, 22% of new loans were sub-prime as compared to 7% in 2001.

The problem here is really one of pricing. When mortgage backed securities are used as collateral for a CDO, then the value of the CDO depends on the risk of loan and the value of the collateral. If the riskiness of the collateral is underestimated, then the CDO is priced above its value. Thus, though the dollar amount at risk for the mortgages may be comparatively small, the mispricing of related derivatives may well be rather large. At this point, financial institutions are struggling to determine the 'right' price for their assets. This is a non-trivial task because most of the securities in question are complicated derivatives. An extreme example of this struggle to evaluate was displayed when ABM Ambro took two of its funds off the market because they could no longer determine the net asset value for those funds.

This leads to the second part of the summer's turmoil---liquidity crises. The main historic purpose of financial institutions is to take investors' liquid assets (cash) and convert them into illiquid assets (investments, mortgages), while maintaining the opportunity for individual investors to retrieve their funds if their situation requires. In August, many wary investors decided to retrieve their funds, which led to a shortage of liquidity. When too many investors withdraw their funds, financial institutions run out of liquid assets. They then have to either borrow money elsewhere or liquidate some of the illiquid investments.

In the case of borrowing, the short-term 'emergency' loans, are usually referred to as a bail-out. Liquidations of assets, or fire-sales, usually result in unfavourable prices and are thus to the detriment of non-panicking investors who did not retrieve their funds but now may panic and try to do so.

This is the point where central banks step in to 'provide liquidity' for markets. Such liquidity 'injections' are short-term loans that have the purpose of preventing short-term fire-sales and thus calming markets. The feared world-wide sell-off of assets explains why central banks of countries that were not directly affected by the sub-prime crisis had to provide short-term loans.

Return to the Index

The School of Public Policy and Governance

by Mark Stabile, Director

Earlier this year, the University of Toronto established a new School of Public Policy and Governance with an exciting mission---to educate young professionals to make a difference in public life, to help shape dynamic and innovative public policy at regional, national and international levels, and to prepare leaders for the next generation of policy challenges.

The goal of the School is to become a leading Canadian presence among schools of public policy internationally. It aims to be a major source for scholarship and educational training in public policy. The School will draw on the breadth and depth of scholarship in public policy at the University of Toronto and through networks across Canada and the world. It will bring together scholars and practitioners to engage with ideas, to think about the next generation of policy problems, and to challenge students to think across disciplines and sectors when developing and implementing policy.

The School will offer a Master of Public Policy, a two-year professional degree program. This past September, the inaugural class of 25 graduate students began examining many challenging issues that confront governments at all levels while exploring how governments make decisions and choices, and implement them. Students will learn the analytical and critical thinking skills that are required to address both today's policy problems, and tomorrow's emerging issues. The program is truly multidisciplinary with faculty from across the University teaching in the core of the program. It is small enough that students will have an opportunity to work closely with some of the best policy scholars at U of T. And, thanks to the network of public policy scholars across faculties, divisions, and departments, students will be able to tailor their education in public policy by drawing on the considerable strength and depth of courses in many fields across the University. A mandatory internship between the first and second years will help students build the technical, professional and networking skills that can help them bridge to future employment.

The School has already finalised internship agreements with the Ontario Public Service and the City of Mississauga, and is currently negotiating with other partners inside and outside government who can offer significant learning opportunities and, from a talent-management perspective, are looking for ways to better target and recruit potential employees to career paths in public service.

An integral component of the School is the Visiting Fellows in Residence program. It offers public servants with significant professional and leadership experience in the crafting and implementation of public policy an opportunity to spend up to a year as part of the School's vibrant community. Fellows can participate and contribute fully to the intellectual environment of the School and the broader University in addition to enhancing the overall student experience, translating theory into practice and developing policy-relevant research. Visiting Fellows will return to their home department or ministry at the end of their term in residence so that the internal policy community will benefit from their experience at the University and so that the policy network connecting the School and practitioners will develop and expand.

A third critical element in the vision of the new School is its outreach programming. Even prior to its formal launch, the School hosted an exciting line-up of conferences and symposia in Fall 2006, marrying the research expertise of its faculty and invited policy scholars with the experience and insights of leading practitioners in public service and public life. Topics ranged from an interdisciplinary examination of social insurance for health care to child development to accountability in federal grant and contribution programs and to the role of engineering in public policy. Upcoming events will further signal the School's commitment to reach across disciplines and sectors to bring the type of integrated thinking needed to address increasingly complex and sometimes contradictory public policy challenges.

Economics is one of the pillars of public policy and therefore the Department of Economics is a major contributor to both the research and teaching life of the School. Many of this year's conferences featured members of the Department. Professor **Michael Baker**, the RBC Chair in Public and Economic Policy, co-hosted the conference on child development with the School. Professor **Morley Gunderson**, the CIBC Chair in Youth Employment, spoke at the School's conference on health care financing. Professors **Dwayne Benjamin**, **Peter Dungan**, and **Phil Oreopoulos** will teach in the MPP program in the first few years.

For more information on the School, upcoming events, and the Master of Public Policy program please visit our website at
www.publicpolicy.utoronto.ca.

Return to the Index

The Master of Financial Economics Program

by Varouj Aivazian, Director

The Master of Financial Economics (MFE) program is a joint program of the Department of Economics and the Rotman School of Management. The objective of the program is to achieve synergies in academic and professional education by merging the analytical skills imparted by the MA in Economics with the applied training provided by MBA finance courses. This combination of analytical and applied and practical courses provides an excellent learning experience for students.

Admission to the program is very selective, and nineteen highly qualified students started their studies in the program in the Fall of 2007. Enrolment has been steadily increasing and we expect it to eventually reach our ultimate goal of 25 students per year.

MFE students continue to be highly successful in securing summer internships in the financial industry. The internship provides an opportunity for students to put their analytical skills into practice, and it helps students discover their own strengths and interests so that they can make informed choices in their second-year courses as well as their careers. Many internships result in attractive job offers---the program continues to be well received by employers in the private and public sectors.

The MFE program sponsors the annual **Michael Berkowitz Lecture**, named in memory of the principal initiator of the MFE program. Professor Ralph Winter of the University of British Columbia was the lecturer in 2007 and spoke about the economics of insurance markets under the title , "The Finance-constrained Theory of Insurance Markets." The lecture was well received.

For further information about the MFE program, visit the program's website at www.rotman.utoronto.ca/mfe

Return to the Index

News from Economics at the University of Toronto at Mississauga

by Gordon Anderson, Associate Chair

The Department of Economics at the University of Toronto at Mississauga (UTM) continues to expand in terms of its student base though there has been no net change in our number of full-time faculty. Our faculty continue to maintain a high research profile with several publications in leading journals in the past year. **Xianwen Shi** is a welcome addition to the Department as an assistant professor. He will be teaching Managerial Economics I: Competitive Strategy, and comes to us from Yale University. On the other hand we are sad to lose **Heidi Shierholz**, a contributor to this Newsletter, who resigned to take up a position in a private sector think-tank in Washington D.C. She will be greatly missed by all at UTM.

The number of students taking our courses almost doubled from 1606 in 1998-9 to 3087 in 2003-4, and in the last 4 years has further increased to 4167. The number of full-course-equivalent sections of courses has increased from 26.5 to 38.5 over the same period. New second-year microeconomics sections dedicated to the Commerce Program have been introduced and there has been some expansion in our third- and fourth-year courses, largely reflecting the introduction of the Financial Specialist Program launched last year jointly with the St. George Department. These increases have largely been serviced by sessional lecturers, stipendiary teachers, emeritus professors and regular faculty on an overload basis. As anticipated in last year's letter, admissions to commerce and economics programs have more than maintained the post-double-cohort levels.

Return to the Index

Update on the Institute for Policy Analysis

by Frank Mathewson, Director

The Institute is on the move! An external review committee has recommended, and Graduate Education Council of the School of Graduate Studies (SGS) has approved, the dis-establishment of the Institute of Policy Analysis as a research center of SGS at the end of the academic year 2006/2007. Effective July 1, 2007, the Institute for Policy Analysis has been re-established as a research center at the Rotman School of Management. This change coincides with the termination of my 10-year term as Director of IPA. The Institute will retain its current administrative structure and all current staff members are being appropriately transferred. Professor **Ignatius Horstmann** (Rotman School of Management) has been appointed as Director of the new entity for a three-year period from July 1, 2007 through June 30, 2010.

Under the Rotman umbrella, the IPA will continue its current role as a forum for interdisciplinary economics-based research at its present physical location. Over the coming year, the new Director, in consultation with Institute associates, will review the activities of the 'new IPA' (as well as its name) to further refine its role within the Rotman School. For some time, there have existed strong synergies between the IPA's research activities and other Rotman School focus areas. The goal is to build on those synergies as well as maintain the strong linkages with the Department of Economics and other units in the University.

This year on May 4 and 5, the IPA and the Rotman School co-sponsored a 2-day research conference titled "Dynamic Models of Industry Evolution". Speakers were from Carnegie-Mellon University, Harvard University, the University of Minnesota, New York University's Stern School, the Rotman School of Management, and the University of California at Los Angeles. The IPA also continued its sponsorship of the Summer Workshop in Industrial

Organisation at the University of British Columbia. This year's conference was held on July 6 and 7. Speakers were from the University of California at Berkeley, the University of Chicago, New York University, Stanford University, Tel Aviv University and the University of Toronto.

Return to the Index

Our Building Renovation and Expansion Progresses

by Don Dewees, Chair of the Renovation Committee

Construction has proceeded well during the summer and fall, with only short delays due to a strike and waiting for some structural steel. The concrete basement walls for the new addition were poured in the spring. The shape of our new premises is now apparent from St. George Street as construction proceeds toward a summer, 2008 completion date. As this is written in November, 2007, the framing for the addition is being completed and the concrete for the last of the basement floors poured. Workers are installing wiring, plumbing and the heating and air conditioning pipes and ducts.

The three story addition is tall, with ceiling heights matching the high ceilings in the 1889 Victorian house. From the bp nichol laneway one can see the window openings for the first floor conference room and seminar room and the windows for faculty offices on the second and third floors. From St. George Street the framing for the two-story glass link between the South House and the 1889 house is evident, providing for the first time a connection between the second floor of South House and the second floor of the 1889 house. The first floor of the 1889 house will feature an elegant reception room, previously our front conference room, with comfortable seating for students waiting to see advisors located adjacent in the front of the new addition. The undergraduate lounge will have a glass wall facing the beautifully landscaped courtyard to the south, and will be just steps away from the mentors' office in our new student mentoring program.

When it is completed the building, to be named Max Gluskin House, will increase our office space by 60%, allowing us to house all faculty in one location and to provide adequate space for our graduate students for the first time. Undergraduates will be welcomed to the undergraduate common room where they can relax and talk with classmates while waiting between classes. The building should transform the Department's ability to serve all of its students and to facilitate first-class teaching and research by the faculty. The project has been made possible by a magnificent gift from Mr. Ira Gluskin and Mrs. Maxine Granovsky-Gluskin and by support from Dean Pekka Sinervo.

There are additional opportunities for donors to make a real difference to this project and to be remembered with the naming of a room or a wing. Friends of the Department who are interested in supporting this transformative project should contact our Chair, Arthur Hosios or Monica Lin of the Office of Advancement, Faculty of Arts and Science.

Return to the Index

New Colleagues

Victor Aguirregabiria

Victor joins the Department an Associate Professor in the fields of industrial organisation and econometrics following three years at the University of Western Ontario, two years at the University of Chicago and six years at Boston University. His doctorate is from CDMFI-Universidad Complutense at Madrid in his native Spain. He teaches courses at the graduate level in both his specialties.

Martin Burda

Martin specialises in theoretical and applied econometrics and in applied microeconomics. He joins us from the University of Pittsburgh where he received his PhD. His MA is from McGill University and he did undergraduate work in Sweden and in the Czech Republic, his country of origin.

Margarida Duarte

Originally from Portugal, Margarida joins us with a PhD from the University of Rochester after spending a few years in the Research Department of the Federal Reserve Bank of Richmond. She teaches international macroeconomics at the undergraduate level on the Mississauga campus and at the PhD level on the downtown campus.
Photo of Margarida

Ajaz Hussain

Ajaz joins us with a PhD from Brown University, having done his undergraduate studies at Williams College and taught for some time at Babson College. He specialises in applied microeconomics and teaches undergraduate courses in that field.

Jordi Mondria

Jordi comes to us after completing his PhD at Princeton University, having received his undergraduate education in his native Spain. He does research in international finance, financial economics and macroeconomics and teaches undergraduate and graduate courses in these areas.

Peter Morrow

Peter specialises in international economics and joins us with a PhD from the University of Michigan following undergraduate studies at Boston College. He also has interests in international macroeconomics and applied microeconomics and economic development.

Xianwen Shi

Xianwen joins us from Yale University at which he is obtaining his PhD. His undergraduate education was in engineering in the People's Republic of China, where he also obtained an MA in economics. He teaches managerial economics on the Mississauga Campus and contract theory in the graduate program on the main campus.

Colin Stewart

After completing his undergraduate work at McGill University and receiving his MA in mathematics at Queen's University, Colin is obtaining his PhD in economics from Yale University. He specialises in microeconomic theory, teaching an advanced course in that area at the undergraduate level as well as microeconomic theory for MA students.

Return to the Index

What's Happening in the Department of Economics

Undergraduate Awards Reception

Our annual undergraduate awards reception was held on November 23, 2006 to honour the accomplishments of our best undergraduates. The ceremony was attended not only by many of our faculty and the students receiving awards, but also by **Linda White**, Associate Chair and Undergraduate Director in the Department of Political Science, **Elizabeth Jagdeo**, Undergraduate Administrator in the Department of Political Science, and **Lanor Mallon**, Manager, Faculty Governance and Curriculum, Faculty of Arts and Science, and two Emeritus colleagues, Professors **Ed Safarian** and **Nanda Choudhry**, both of whom endowed prizes. Following introductory remarks by our Chair, **Arthur Hosios**, the awards were presented by **François Casas**, Associate Chair, Undergraduate Studies. Ed Safarian and Nanda Choudhry also spoke briefly and personally presented the awards they endowed. The awards and their recipients are listed below. Needless to say, we are very proud of these students and extremely grateful to the individuals and institutions that endowed these awards.

Mary Child Scholarship in Economics (to the outstanding graduating student in the Economics Specialist Program) --- **Karin Berlin**.

Economics GRADitude Scholarship (to a student in a major or specialist program in economics) --- **Tianjiao Wang**.

Alexander Mackenzie Scholarship in Economics (to a student in an economics program who has completed at least two full courses in economics) --- **Ing-je Chen**.

Lorne T. Morgan Gold Medal in Economics (to the leading graduating student in a specialist or joint specialist program in economics) --- **Peter Neelands**.

Brian Mulroney Award (to the student with highest mark in ECO230Y, HIS263Y or POL214Y) --- **Mykyta Pohvalynskyi**.

Stefan Stykolt Scholarship in Economic Theory (to the student in a specialist or major program in economics who has the highest average in intermediate microeconomics and macroeconomics) --- **Xiaodi Zhu**.

Banker's Scholarship in Economics (to the student with the highest standing in the intermediate macroeconomics course) --- **Hyek Ki Min**.

Nanda Choudhry Prize in Economics, Second Year (to the student in a specialist program in economics who has obtained the highest average mark in at least two of the second year courses in microeconomics, macroeconomics and quantitative methods) --- **Yuecheng Zhang**.

Nanda Choudhry Prize in Economics, Third Year (to the student in a specialist program in Economics who has obtained the highest average mark in at least two full economics courses at the 300 or 400 level) --- **Anna Gumen**.

Paul L. Nathanson Scholarship in Economics (to an outstanding student whose program includes at least three courses in economics) --- **Anna Gumen**.

Frederick G. Gardiner Scholarship in Economics and Political Science (to an outstanding student enrolled in the joint Specialist Program in Economics and Political Science) --- **Daniela Scur**.

Mary Keenan Award (to two students who have successfully completed the first year in the Faculty of Arts and Science and who have enrolled in a specialist program in economics) --- **Iva Halacheva** and **Cameron Rose**.

Noah Meltz Undergraduate Award in Labour Economics (to an outstanding undergraduate student in our third year course the economics of labour) --- **Joshua Singer**.

Ramsay Scholarship in Economics (to an outstanding student whose program of study includes at least three courses in economics) --- **Bei Zeng**.

Safarian Scholarship in Economics (to an outstanding student in a specialist program in economics) --- **Jie Cao**.

Reza Satchu Award for Excellence in Economics (to the best student in the course on the economics of entrepreneurship) --- **Adam Panasiewicz**.

Photos from the Awards Ceremony

John H. Dales

Retired colleague **John Dales** passed away this August 16, shortly after receiving a very special honour. The Environmental Markets Association, an international nonprofit trade association formed to promote market-based trading solutions for environmental management, has established the **John H. Dales Leadership in Environmental Markets Award** to honour organisations that have made significant progress toward adapting to environmental challenges and/or influencing other companies or groups to address environmental challenges. The award was named to recognise John's development of the concept of tradable emission permits in his classic book *Pollution, Property and Prices*, published by the University of Toronto Press in 1968. While tradable emission permits were a radical idea in 1968, they were much discussed by environmental economists in the 1970s and they began to influence pollution control policies in the 1980s. In the United States, the 1990 Clean Air Act Amendments, Title IV embraced tradable emissions permits as the cornerstone of a massive program to cut in half the emissions of sulphur dioxide from coal-fired power plants. The success of that program has encouraged numerous other emissions trading initiatives including an air emissions program in Ontario. All serious proposals for controlling greenhouse gases, including the Kyoto Protocol, include emissions trading as an essential means of minimising the costs of achieving the environmental goal. Even today, 40 years after the book was published, the literature that discusses emissions trading recognises John's 1968 book. Few of us can expect to be remembered in this way decades after our retirement.

Other Awards and Recognitions

Silvia Martinez Gorricho, one of our PhD students, has been chosen as a winner of the Teaching Excellence Award, given by the Teaching Assistants' Training Programme in recognition of outstanding teaching skills and exceptional support of student learning.

Colleague **John Munro** has just had a festschrift published in his honour. *Money, Markets and Trade in Late Medieval Europe: Essays in Honour of John H. A. Munro* is edited by Lawrin Armstrong, Ivana Elbl and Martin M. Elbl, and published in the Netherlands in 2007 by E. J. Brill.

Another Great End-of-Year Dinner

by Florian Hoffman and Moritz Ritter

In past years, the Department's end-of-year dinner, organised by the Graduate Economics Union (GEU), became a tradition as a great occasion where faculty members and students meet in an informal environment. After a one-year hiatus, we decided to revive this tradition and on May 2 the 2007 end-of-year dinner was hosted at the Messis Restaurant on Harbord Street. The evening event was attended by 75 graduate students and faculty, with the restaurant so full that things got a little 'cozy' (not that there is anything wrong with that!). The pleasant ambiance and excellent food provided a perfect occasion for great conversation---mostly about economics.

The graduate students are very grateful for the Department's financial support which made the event possible. Department Chairman Arthur Hosios and Business Manager Margaret Abouhaidar took a chance on our 'business plan', as Arthur called it, allowing for a dinner in the format we had planned and the revival of a fondly remembered Department tradition.

From all the positive feedback we received following the dinner it is clear that the event was a great success. We hope that we can keep attendance and the overall quality of the event at this level in the future, with one small change---faculty and students should intermingle even more! We have already received some excellent suggestions on how to achieve this next year when the Department and the GEU continue this great tradition.

Photos from the Dinner

New Additions to the Department Family

On August 22, 2006, colleague **Stéphane Mechoulan** and his wife Kelly brought into the world their first child, Chloé Mechoulan. Then colleague **Gueorgui Kambourov** and his wife Miana welcomed their daughter, Julia Georgieva Kambourov, born on August 27, 2007. And on November 12, 2007 Ian Restuccia, the first child of colleagues **Diego Restuccia** and **Margarida Duarte**, arrived. We wish them all well!

Return to the Index

Department of Economics Welcome Page

From the Editor

Communications, suggestions, and information about alumni and other matters should be addressed to:

Prof. J. E. Floyd
Department of Economics
University of Toronto
150 St. George Street
Toronto, Ontario, M5S 3G7

Return to the Index

Email the Editor