

A Message from the Chairman

While the economy limps along, economics thrives. Teaching and research are both flourishing in the QED. On the teaching side, this past year our enrolments reached unprecedented highs. There were some 100 graduate students on the ground in September to be greeted by Frank Flatters in his job as Graduate Chairman. They were roughly equally divided between M.A. and Ph.D. students. The number of Ph.D. students promises to be even higher for the coming year. A similar fund exists at the undergraduate level, where our fourth year B.A. Honours class, under the guidance of Marvin McInnis, reached 60 students.

On the research side, you can see the productivity of the department in the Recent Activities of Faculty section of the newsletter. You will get a more detailed idea of QED research output by looking at the reports on research in fiscal federalism and rent control. Plans for the future are hinted at in the news item, later in this issue, which outlines development of the John Deutsch Memorial, with David C. Smith as interim Director.

Interaction with other researchers through visiting speakers is important for the research and teaching environment of the QED. Among the many visitors through the Department this year, the highlight was the visit of James Tobin of Yale University, the Nobel Prize Winner in Economics for 1981. Professor Tobin was the W.A. Macintosh lecturer this year. In addition to delivering the lecture entitled, 'U.S. Monetary and Fiscal Policy: The Major Issues for Today', he also willingly took part in a debate on monetary gradualism with Mr George Freeman. The debate was lively and crowded. An excerpt appears in the Newsletter. Mr Freeman, the ex-Deputy Minister of the Bank of Canada, visited the Department for the winter term as a Queen's Quest visitor and taught a seminar course in macroeconomic policy. We are fortunate to have him again for the coming fall term. Other visiting lecturers to the Department this year included Jim Friedman of Rochester; Istvan Dobozi,

Institute for World Economics and Karl Marx University, Hungary; Jim Quirk, Caltech; Leonid Hurwicz, Minnesota; L. Pasinetti, Cambridge; Bob Anderson, Princeton, Ian MacDonald, MIT; Chuck Freedman, Bank of Canada; Sweder van Wijnbergen, World Bank; Henry Wan, Cornell; Ravi Kambur, Cambridge and MIT; Tatsuo Hatta, Columbia and Johns Hopkins; Peter Anselm Gorres, Munich; Chris Archibald, UBC, Herb Grubel, SFU; Michael Parkin, UWO, John Eaton, Yale; Barry Eichengreen, Harvard; Claudia Goldin, Pennsylvania, David Levine, UCLA, and Michael Hoel, Oslo and UC San Diego.

Other traffic to and from outside institutions was also heavy. Away for all or part of the year, on sabbatical or leave were Russell Davidson (Laval), Gordon Fisher (Montreal), Richard Harris (UBC), James MacKinnon (UC San Diego), Jack Mintz (Louvain), Ross Milbourne (Reserve Bank of Australia), Nancy Olewiler (UBC), David Smith (Harvard), Gordon Sparks (MIT) and Klaus Stegemann (Institute for Research on Public Policy). David Backus, Jim Brander and Lorne Carmichael, who along with Jack Mintz were on SSHRCC Post-Doctoral Fellowships, remained on campus but with reduced teaching responsibilities.

We were therefore fortunate to have a large number of able and congenial full-time visiting faculty members this year, as replacements for the unusually large number of faculty away. Carmen Carrera from the University of Madrid was here for the full year, as were Serge Coulombe from Laval, Tim Hazledine from Ottawa, Roger Latham from the University of Liverpool, Gavin Reid from Edinburgh University and Jim Richmond from the University of Essex. Harry Bloch from Colorado was a full-time visitor in the fall term, as was Tony Shorrocks from the LSE. Mahinder Chaudhry from RMC taught part-time in the fall term.

For the coming year, only Gordon Sparks of the permanent faculty will be away from Queen's. One new permanent faculty member is coming in the person of Bentley MacLeod. Bentley is

completing his Ph.D. at U.B.C. after having done mathematics degrees at Queen's. He will be with us in the fall term only to be away in the winter on a Post-Doctoral Fellowship at C.O.R.E. in Louvain, Belgium. Roger Latham is staying on as a full-time visitor for 1982-83 and other visitors include Patrick Geary from Dublin, David Webb from Bristol, David Wildasin from Indiana and Pam Chi Thanh from Washington. Mahinder Chaudhry, George Freeman and Tim Hazledine will continue to do part-time teaching for us, and we are very pleased to have Tom Courchene from Western Ontario spend his sabbatical with us.

Those of you of comparatively recent vintage will remember Lillian Brown, Nancy Moors and Marlene Rego of our secretarial staff. We were sorry to see them leave this year, we hope for higher and better things. Lillian moved to Peterborough where her husband was taking employment; Nancy followed the oil money and went West to Calgary; and, Marlene moved to the office of the Vice-Principal (Services). We understand all are thriving. Our new secretaries are Jennine Ball, Sharon Clark, Dorothy Edwards and Patti Fluhrer.

May I take this opportunity to wish you the best for the coming year. We do appreciate hearing from you.

Fiscal Federalism

QED Contributions to the Discussion

This has been a particularly important year for Canadian federal-provincial fiscal relations for two reasons. The five year federal-provincial fiscal arrangements came up for renewal in March of this year and the Constitution Act gave explicit recognition to the principle of mobility rights and equalization, both of which are central to Canadian federalism as we know it.

The Queen's economics department has made major contributions to the theoretical and policy dimensions of both these developments.

A clear and concise introduction and summary of the structure and economic rationale for federal provincial transfers can be found in Queen's economics' professor Robin Boadway's Canadian Tax Foundation publication entitled *Intergovernmental Transfers in Canada* (1981).

The majority of transfers under the federal provincial fiscal arrangements fall into one of three components: regional development grants aimed at subsidizing industries and employment in particular areas of the country, established program financing whereby the federal government helps the provinces fund secondary education and health care, and equalization payments to poorer provinces to enable them to provide adequate levels of public goods and services for a given tax effort.

Until this year regional development subsidies were administered by the Department of Regional Economic Expansion under the Regional Development Incentives Act. An early critique of the Act can be found in Professor Dan Usher's IER discussion paper 197 entitled 'A Critique of the Canadian Program of Subsidizing Investment in the Less Developed Regions'.

RDIA grants were designed to increase employment and economic activity in depressed regions by subsidizing marginal activities. Usher points out several problems with the general principle of subsidizing at the margin and with RDIA grants in particular.

Unlike the case of subsidizing the whole market, there is no guarantee

that subsidizing at the margin will increase output. The success of the program depends on the ability to identify and subsidize rent earning factors. Such identification requires a great deal of detailed knowledge about the size of the rents earned. Where knowledge is imperfect, some or all of the subsidy will take the form of windfall gains. As a result, other investment or production may be crowded out so that the net increase in investment may be far less than the amount subsidized. Furthermore, even if the grants succeed in increasing economic activity, there is no guarantee that employment will be increased. The effects on employment depend on the incentives built into the grants and the degree of factor substitutability.

In the second part of the discussion paper Usher combines the analysis developed in the first part with empirical evidence which suggests that RDIA grants have failed in their objective of increasing employment.

RDIA grants represent a step away from market to political allocation. Drawing on the theory of voting, Usher argues that there are social costs in moving too far towards political allocation, an idea which he develops more fully in his recent book, *The Economic Prerequisites of Democracy*, and which was the topic of a lively debate at a recent interfaculty symposium on democracy.

The question of regional employment subsidies was taken up again by Robin Boadway and Frank Flatters in 'The Efficiency Basis for Regional Employment Policy'. Drawing on development literature on dualistic labor markets, they develop a model of the Canadian economy which incorporates inter-regional labor migration, rigid wages and unemployment.

They set up a two region model with a fixed wage and unemployment in the poor region. Following Harris and Todaro, Harberger, and Jenkins and Kuo, they view migration as an equilibrating phenomenon in the sense that workers migrate from one region to another until the expected utility is equal in both regions.

The older view of wage differentials was that they persisted because of a disequilibrium in the labor market. Under this view, the social opportunity cost of creating a job in the poor region was only the foregone leisure of the person drawn from the pool of the unemployed. Under the equilibrating view, creating a job in the poor region increases the expectations of other unemployed of getting a job and this reduces emigration to the rich region. The social opportunity cost in this case is the foregone leisure plus the foregone output of the workers who would have emigrated to the rich region and found employment there. Thus the opportunity cost depends crucially on the responsiveness of migration to changes in employment opportunities, i.e., job creation.

To determine whether there is a case for subsidizing labor in either region they derive a measure of the social opportunity cost of a job in the region and compare it with the region's wage rate. If the social opportunity cost is less than the wage, then there is a case for subsidizing labor in that region.

Their model suggests that, provided the wage in the rich region is a declining function of the supply of labor, there is a case for subsidizing labor in both regions. Furthermore, results suggest that there is a case for regional employment subsidies to the poor region. RDIA grants appear to be vindicated. However, the results are somewhat ambiguous when government transfers are introduced into the model. Although their model does not generate clear cut policy recommendations, it does provide a very useful framework within which the issue can be examined.

Close to \$42 billion of the \$78 billion in federal transfers to provinces over the past five years fell under established program financing (EPF). The federal proposal to make federal contributions to all provinces for EPF be equal per capita brought a cry of protest from the provinces. However, on reflection it is clear that the protests were more political posturing than economic reasoning. In a paper addressed to the Institute for Policy Analysis Conference

on Barriers to interprovincial Trade, Boadway pointed out that the changes in EPF transfers need have few distributional consequences, either between the federal and provincial governments or among provincial governments, provided revenues were equalized.

The federal government could end EPF transfers without transferring tax points to the provinces. If the provinces reacted by raising their tax rates as a share of federal taxes so as to leave their budgetary position unchanged, each province would have to raise its taxes by approximately 37.8 tax points. Have provinces would fare slightly better. The only important exception is Saskatchewan where tax rates would have to be raised by 47.3 points because of that province's unique status of have province overall but have-not province in terms of personal income. And, of course, the federal government is not recommending ending EPF transfers but rather restructuring the formula by which determines them and thus slightly lowering transfers.

The particular formula by which equalization entitlements will be determined over the next five years has been the subject of considerable controversy with various proposals and counter-proposals vying to replace the formula in existence from 1977-1982.

Many of the proposals are inadequately thought out, poorly grounded in the theory of intergovernmental transfers, and/or clearly designed to advance the interests of their advocates. In what promises to be a seminal paper in Canadian federal provincial fiscal relations, Boadway and Flatters present the equity and efficiency basis for equalization in a federal state. The economic rationale for equalization presented in their paper will, no doubt be a useful criterion against which to judge proposed equalization formulae.

The need for equalization transfers arises from a discrepancy between real and market incomes. Real income equals market income plus net fiscal benefits, that is, the difference between what an individual pays in taxes and what he receives in government goods and services.

One source of net fiscal benefits (NFB) is the distributional characteristic of the tax system. If the tax system is progressive in its incidence but distributionally neutral, a poor person in a province will receive more NFB the richer the province. A second source of NFB and one which has become very important recently is natural resources. Provinces rich in natural resources can provide additional public goods and services for their citizens with no extra tax burden.

In a paper presented to the Ontario Economic Council conference on 'Developments Abroad and the Domestic Economy', Frank Flatters and Douglas Purvis discuss two important consequences for Canadian fiscal federalism resulting from the dramatic increase in oil and gas prices in 1973.

The increase in oil and gas prices exacerbated the inefficiencies of free mobility of labor. Efficiency requires that the marginal product of labor be equal across provinces. If this condition is not fulfilled, total output can be increased if workers move to where they contribute most to output.

In a market economy wages approximate the marginal product of labor and so efficiency requires that wages be equalized across provinces. However, the individual makes his decision about where to locate, not only on the basis of market wages, but of market wages plus NFB. Free mobility of labor will only equate wages, and hence the marginal product of labor, in the unlikely event that NFB are equal across provinces.

The increase in oil and gas prices created large NFB in the producing provinces. In fact, Flatters and Purvis calculate that the per capita fiscal incentive to move from Ontario to Alberta resulting from a \$10 increase in the price of oil is approximately \$5000. This would tend to induce excessive migration, lowering marginal product of labor in Alberta relative to in Ontario and thus violating the overall efficiency condition.

The increase in oil and gas prices brought a concomitant increase in overall equalization payments. This would have created no problem if the formula had been self-financing, that is, if positive equalization entitlements

were paid for out of the negative equalization entitlements of the rich provinces. However, under the prevailing scheme, positive equalization entitlements are paid for out of federal revenues. This created problems of feasibility and equity. The federal government was unable to continue to fully equalize resource revenues. An ad hoc solution was worked out whereby the federal government equalized only 50% of resource revenues.

The equity problem arises from the fact that the bulk of federal revenues come from the personal income tax. This has meant that the burden of the increase in equalization fell disproportionately on the provinces with high personal incomes.

The more general rationale for equalization is provided by Boadway and Flatters in 'The Role of Equalization Payments in a Federal System of Government' (forthcoming CJE). The discrepancy between market and real incomes gives rise to both efficiency and equity reasons for equalization. The efficiency reasons are essentially those summarized in Flatters and Purvis. I will not repeat them here except to say that the efficiency condition could be induced artificially by equalization transfers which eliminated the differentials in NFB.

The equity grounds for equalization arising from the discrepancy between real and market income are somewhat more subtle. Economists distinguish between vertical and horizontal equity. Vertical equity, concerning itself with equity in the treatment of unequals, is the more purely normative of the two. Boadway and Flatters focus on the less controversial principle of horizontal equity which requires that equals be treated equally. More specifically horizontal equity requires that two similar individuals with equal market or pre-government activity income have equal real or post-government activity income.

That the discrepancy between market and real income as a result of differential in NFB violates horizontal equity can be easily demonstrated by using a simple numerical example. Suppose the

federal income tax rate is 30% and that Ontario and Alberta incomes are as follows:

| | Market income | NFB | Real income |
|-----------------|------------------|------|----------------|
| Ontario teacher | 20,000 | 0 | 20,00 |
| Ontario lawyer | 25,000 | 0 | 25,000 |
| Alberta teacher | 20,000 | 5000 | 25,000 |

The two teachers each pay \$6000 in federal income tax although the real income of the Alberta teacher is \$5000 higher because of the activity of its government. He pays no taxes on the NFB.

The way to correct this inequity is through equalization transfers which would eliminate the NFB by equalizing the per capita tax base from which the provinces generate revenue so that they would all get equal revenue for equal tax effort.

If we are to use equalization transfers, the next question is what proportion of the NFB do we equalize. Boadway and Flatters recommend we look at the question in terms of property rights. If the individual has property rights to what gives rise to NFB then it is part of his income and equity considerations require that these revenues be taxed at the federal income tax rate, i.e., we equalize a proportion of the revenues given by the federal income tax rate. If the individual has no property rights then there is a case for fully equalizing the NFB.

Boadway and Flatters argue that a person has no property rights over the NFB that he receives simply by virtue of the fact that he resides in a province with relatively high income. Therefore, they recommend that all residence-based tax revenues be fully equalized.

A case can be made for different treatment of resource revenues. Section 109 of the BNA Act and PART VI of the Constitution Act 1981 give the provinces property rights over natural resources. This implies that one can view the property rights over resources as having been predetermined and part of the legitimate endowment of provincial residents.

To the extent that this is true, one can argue that the equalization scheme

ought to be concerned only with effectively taxing the implicit income generated by the provincial resource revenues, i.e., equalizing a proportion of them equal to the federal income tax rate.

Many of the strands of theory mentioned throughout our discussion here are brought together in a paper by Flatters and Lipsey entitled 'Common Ground for the Canadian Common Market'. The development of their paper paralleled the final stages of development of the new Canadian constitution and provides an insightful counterpoint against which to scrutinize certain aspects of it.

The essential purpose of their paper is to assess the state of, and the case for, free trade within the Canadian economy. They begin by pointing out that there is little constitutional or political protection for the Canadian Common Market. The BNA Act contains only one directly relevant section - section 121 - and it is far from comprehensive, not considering the movement of labor and capital and apparently not prohibiting non-tariff trade restrictions.

To the extent that they are effective, political forces in Canada tend to work against the common market. Provincial governments tend to be more responsive to local producer interests. The recent hard economic times have exacerbated a tendency to province building with provinces engaging in beggar-my-neighbour policies which are self-defeating overall.

The essential case in favor of the common market can be extracted from the simple theory of the benefits of free trade. The effect of regional protectionist policies is to redistribute economic activity in an inefficient manner from lower to higher cost sources of supply thereby reducing national GNP below its potential. Flatters and Lipsey refer to studies which estimate the costs of restrictive practices to be around 5% of GNP, a very substantial cost indeed. Furthermore, there are the costs associated with the reduced competitiveness over time of insulated regional and national industries.

While the pure theory of free trade makes a strong case for the common

market, practical policy considerations and the peculiarities of the Canadian economy may dictate certain qualifications to the pure free trade case. Flatters and Lipsey consider three possible grounds for qualifying the case for the common market.

Provincial governments have referred to regional unemployment problems as grounds for regional job creation programs. Such programs will be counterproductive if they call into existence retaliatory programs in other regions or provinces. Even where there is no retaliation, regional job creation programs may be unsuccessful in reducing unemployment if the creation of a job increases expectations of the remaining unemployed about their chances of getting a job and if emigration is responsive to such changes in expectations. Where this is the case, the creation of a job will slow emigration, keeping unemployment high and, at the national level, sacrificing the output that the deterred emigrant would have produced had he moved to the region of relatively low unemployment and found employment there. Flatters and Lipsey conclude that there is little grounds for regional employment policies.

They have similar reservations about regional development policies, fearing that while there may be a case for some degree of regional development activity, there is a danger that it escalates into beggar-my-neighbour policies of detrimental proportions. They recommend the constitutional entrenchment of rules against such practices with defined exceptions which would allow some use of regional development policies in a region with a per capita income well below and an unemployment rate well above the national average.

The third and only substantial grounds for qualifications to the common market arises as a result of the problems created by resource rents. The increase in oil prices has led to large interprovincial differences in fiscal benefits from resource rents. These differences in fiscal benefits induce labor migration to a degree that is inefficient and under the existing tax system the differences in fiscal benefits violate horizontal equity. As a solution to these

Canadian Monetary Policy

Queen's University 10 March 1982

problems they recommend the use of a system of intergovernmental transfers designed to reduce or eliminate these differentials.

At the close of their paper they point out several ways in which they feel the new constitution is deficient. It contains no new provisions concerning the free movement of goods and service between regions in Canada. While there is a new section on mobility rights which is intended to prevent laws which discriminate on the basis of a person's residence, provision is made allowing discriminatory action to help individuals in a province 'if the rate of employment in that province is below the rate of employment in Canada'. This blanket exemption is far more than that suggested by Flatters and Lipsey.

The principle of equalization is guaranteed but the new formula proposed in the November budget and the five province representative standard which succeeds it are deficient in several important respects. Both are gross formulae requiring federal funding. Because they equalize resource rents up to a base which excludes Alberta, they effectively exclude most resource revenues from equalization. Consequently, there is virtually no incentive for the have-not provinces to develop their tax base in resource revenues.

The considerable contribution made to the field of federal-provincial fiscal relations by Queen's economics professors has attracted interested students and generated a good deal of discussion among graduate students at Queen's. Several graduate students are presently working on different issues within the field. In this way some of the work summarized above will be updated and/or extended.

Alfred Leblanc

The following are part of the opening remarks in a roundtable on Canadian monetary policy held at Queen's at the time of the visit of James Tobin, Nobel Laureate 1981 and professor at Yale University. George Freeman, retired Deputy Governor of the Bank of Canada and visiting professor at Queen's began by describing factors leading to present monetary policy.

George Freeman:

Towards the end of 1975, more than six years ago, the Bank of Canada first committed itself publicly to a policy of gradually decelerating the trend rate of monetary expansion in Canada. As you may well remember, during the first half of the 1970's there was an extremely sharp escalation of Canada's inflation rate. It was quite clear, when looking back over the past fifteen or twenty years, that successive periods of cyclical expansion in economic activity were accompanied by higher peak rates of inflation. And while it had not been the intention of the Bank to permit or contribute to this pattern of protracting inflation, that is in fact what transpired.

As the central bank, we felt it was terribly important to do what we could to make sure that this prolonged pattern of chronic and repeatedly escalating inflation with each successive cycle was not projected over the coming years. The decision was that we would commit ourselves publicly over the next several years to a policy of gradually trying to moderate the trend of monetary expansion.

In taking this view, there was certainly no question in our minds of rejecting the basic ideas behind economic policies, or the Keynesian prescription for promoting high levels of economic activity through debt management. Our objection was not in attempting to apply the perfect Keynesian prescription as we understood it. It was our uneasy feeling that, in our attempts to deal with short-run situations, we had systematically, as it turned out, erred in the direction of taking our chances with generating high inflation in the interests of avoiding worsening short term employment problems...

...Previously, what we had been aiming to do was to try to anticipate disturbances in demand activity in time to use our technical powers to bring about offsetting changes in the cost and availability of credit. Everybody had strong motives for wanting to believe that it was possible to run an economy like ours substantially closer to capacity than it had without generating rising inflation. However, since the danger of creating an unnecessary downturn and unnecessary unemployment was immediate, and would do immediate damage, whereas the incremental damage you might do by erring on the other side and allowing the inflation rate to be ratcheted up yet again was long term and cumulative, there was a very strong temptation to err on the side of stimulation. Hence, we found ourselves in the position of bartenders at a party who, just when the party was getting good, have to start cutting off the drinks...

...We implemented our gradualist approach by affecting short-term interest rates, thereby sliding up and down the demand curve for money, rather than trying to use some direct mechanical link between the amount of base money and various M's. In 1976-77 we encountered a great deal of slippage in the mechanism because commercial banks introduced corporate cost management schemes. These allowed corporations to economize on the use of M₁ balances, so that the result was that our policy looked tighter than it was and it was, in fact, much easier than intended.

The situation that we have been in since last summer and fall is a special matter due to the fact that interest rates in the U.S. went as high as they did and from the fact that U.S. demand activity has fallen off as much as it has. We are faced with the dilemma of being in a deep recession ourselves, but also, are in the unfortunate circumstances of having an inflation rate that is a lot higher than that in the U.S. However, monetary gradualism still seems to us to be basically an acceptable policy compared with the alternatives that lie at hand and one that I don't think the Bank

would be inclined to give up very easily.

James Tobin:

The policy of monetary gradualism being followed in the United States and in Canada, as I understand it, is that every year, for a number of years, the rate of monetary growth shall be lower than it was in previous years. Monetary growth should not necessarily go down every day, every month, or every quarter, but gradually, over time, there should be a downward trend. The purpose of such a policy is to get rid of the inflation that we have inherited from the experience of the 1970's.

Perhaps the first question that this policy raises is 'Will it work?' or 'Can it work?'. I think the answer to that question is 'Yes'. It can do the job if pursued over time, and if it is allowed by the political process to be pursued over time. The question is how fast and at what cost. The way it works, I think, is perfectly clear from experience in North America and across the Atlantic, especially in the U.K. Such a policy works to reduce the growth of production in these economies, or to make the volume of production actually fall, the volume of unemployment increase, and excess capacity increase to bring enough slack to the economy, enough idle resources, enough unemployment, enough excess capacity, enough firms to the brink of bankruptcy, and into actual bankruptcy, so that in competitive desperation for jobs and markets, unions, workers and firms bring down wages and prices...

...As long as the policy continues, we will have recessions or stagnation of the same kind with high unemployment and excess capacity. Meanwhile, we are losing a lot of investment in capital for the future that would have been made under more prosperous conditions. We are also losing several generations of youth who do not receive jobs and learn skills and habits of work during their young adulthood. So we are losing not only private, but public investment in facilities that determine the overhead of the economy...

...I don't know if it is the Canadian policy, but Paul Volcker, the chairman

of the Federal Reserve, is not supposed to look out of the window of the Federal Reserve Building. He is not supposed to read the paper and learn what the unemployment rate is or the bankruptcy rate or matters of that kind, because the policy, and the credibility of the country in following the policy, depends on persevering in the same policy regardless of its effects. Part of it is a threat to the private sector which says: 'You guys out there had better understand very clearly that your only hope for employment, prosperity, and reasonable economic performance is to cut down on your wages and prices. To continue to inflate as in the past, given our stingy monetary targets, will only lead us into more trouble and we are not going to bail you out.' This is something like the local fire department getting tired of all the careless smokers in the town and saying, 'Until this stops, we are not going to put out any more fires'.

The question is whether that is a moral stance for a government to take in a democracy, and if it is not, whether it is believable and whether it will work. Then the question is, are these hardships necessary? Is this the only way that rational people living in a modern society can get rid of a man-made evil, namely a higher rate of inflation than they feel comfortable with. That is the reason for suggesting that monetary gradualism be supplemented by some kind of incomes policy which brings more direct incentives for reducing the rate of wage and price inflation, and for doing it more rapidly and therefore with less damage to employment, output, investment, and growth of the economy...

...There are two things that are essential, if not sufficient, to conquer inflation. One is that the rate of monetary growth, (incorporating the expected possible trend of monetary velocity), should be no greater than the sustainable non-inflationary growth rate of the economy. The second condition is that the rate of wage increase in the country should not exceed the rate of growth of labour productivity. This is because in the absence of changes in the rate of markup, which are unlikely to

occur, the rate of growth of inflation is going to be commensurate with changes in the rate of growth of labour costs, while labour costs are going to rise, in terms of dollars, at the rate of inflation minus the rate of growth of productivity. That is why, until the rate of wage increase is brought down to something more commensurate with the growth of productivity, we will not be able to rid ourselves of inflation.

I notice that monetary gradualism in Canada has not succeeded in doing that to the rate of wage inflation, whatever else it may have done over the years Mr Freeman was describing. That suggests that some other measure, to bring down the rate of inflation, besides what the Federal Reserve or the Bank of Canada can do is really essential to combat the problem without a number of years of damage we can ill afford.

Rent Control and Options for Decontrol in Ontario

The report *Rent Control and Options for Decontrol in Ontario*, by Richard Arnott, of the QED was released by the Ontario Economic Council in January, 1982.

Ontario's Residential Tenancies Act should be continued for the security of tenant rights, but the guidelines rent increase should be eliminated, the report says.

The paper which was written with the assistance of Nigel Johnston, advocates immediate implementation of a gradual five-year rent decontrol program: 'The continuation of controls is highly inadvisable: the longer they are in place, the greater harm they cause, while the harder they become to remove', says the report.

The study analyzes Ontario's current rent control program and recommends modifications to the Residential Tenancies Act administration, including increased funding of the Residential Tenancies Commission, active monitoring of and prosecution against illegal rent increases, informing tenants of their rights, and amending current procedures for determining cost increases. A revision of the mechanics of rent review and hearings to put tenants on an equal footing with landlords is also suggested, although the report acknowledges that 'the details of the present law and its application are generally sensible, taking as given the chosen mode of control. By and large, a judicious balance has been struck between administrative simplicity, equity, and adherence to the intent of the legislation. The informality of the rent determination process is most welcome.'

The existing literature on the economic effects of rent control is reviewed, and the arguments for and against controls evaluated. A new model of the housing market is then developed by the author, which is used to study the effects of three rent control programs similar to Ontario's current program. The results of the analysis reveal the different rent control programs have markedly different effects. Thus, general arguments for and against controls should be viewed with skepticism.

Alternative decontrol strategies and their potential economic effects are assessed by the study, taking into account the political aspects of decontrol. 'Now is a good time to remove controls', says the report. 'Vacancy rates in most Ontario cities are not disturbingly low; decontrol today would cause little disruption and be relatively painless in these areas. Where current vacancy rates are low, as in Toronto, there is little reason to expect them to rise significantly in the near future. Thus, while immediate decontrol of these cities may involve some pain, it would probably be less than would result if they were decontrolled later.'

'If after controls were lifted there were another unexpected surge in demand that led to an alarmingly rapid rise in rents, controls could be applied again. But they should always be treated as a short-term, not a long-term, policy measure', the report says. 'The benefits from controls fall rapidly after the temporary, unanticipated surge in demand that led to their introduction is over. The costs, meanwhile rise exponentially. There exists, therefore, an optimal time to remove controls, and in Ontario that time is already past.'

The central recommendation made by the study is a floating up and out decontrol policy, with complete decontrol in a few years: 'Of all the pure forms of decontrol, we consider floating up and out the most attractive. In the first place, it is probably the most efficient. Because it does not permit large rent increases, it would be unlikely to cause much disruption. Moreover, it ensures that all housing will eventually be completely decontrolled; therefore the efficiency loss associated with the continued partial application of controls would diminish steadily. Second, because floating up and out would be applied uniformly to all controlled housing, it would not be likely to offend the public's sense of equity. Third, it would decontrol the whole market gradually, and so the redistribution it would cause would also likely be gradual. Finally, it could be administered by the same agencies that administered rent control and on the bases

of precedents set during the control period.'

Specifically, the report suggests that 'The Residential Tenancies Act should remain intact (except perhaps for some of the modifications suggested), but the guideline rent increase should be raised gradually year by year, from 3 per cent below the rate of inflation in the first year, to 1 per cent below in the second, 1 per cent above in the third, and 3 per cent above in the fourth. Then at the beginning of the fifth year, rent control should be eliminated, although those features of the Act that improve tenant security should be retained. Finally, we underscore that the method of decontrol, while important, is secondary to the need to decontrol.'

This paper was prepared under the auspices of the Ontario Economic Council, established in 1962 as an independent public policy institute. Studies reflect the views of the authors not the Council.

Recent Activities of Faculty

James Brander has spent most of the past year working on imperfect competition in international trade. He recently presented a paper at a Conference in London, Ontario entitled 'Industrial Strategy with Committed Firms'. He also presented a paper entitled 'Protection and Imperfect Competition' at McMaster University. In addition, he has two papers on public pricing being published: 'Local Telephone Pricing: Two-Part Tariffs and Price Discrimination' is forthcoming in a book to be published by North-Holland and 'Second Best Pricing of Publicly Produced Goods: The Case of Downstream Imperfect Competition' is forthcoming in the *Journal of Public Economics*. All four of the papers mentioned here are co-authored by Barbara Spencer of Boston College.

John Hartwick continued research in natural resource economics and public utility pricing. He took up issues in the economics of uncertainty. 'Learning About and Exploiting Exhaustible Resource Deposits of Uncertain Size' was written while visiting with Prof. Murray Kemp at the University of New South Wales for a second time in the summer of 1981. This paper was presented in seminars at the Australian National University, the Michigan-Western Ontario Workshop and Yale University. Another paper, 'Intertemporal Common Property Equilibria: The Fishery', was presented to the Applied Mathematics Society of Canada annual conference in Montreal. He served as invited discussant at the Canadian Economics Association meetings in Halifax and the summer Econometric Society meetings in San Diego. He also served on an evaluation team for energy research for the Economic Council and for natural resource research for the SSHRCC. Robin Rowley joined John Hartwick in telephone pricing research for the Department of Communications. Mathematicians, Buckholtz, Madill and Wasan collaborated with John on the paper, 'Capitalism from a Schumpeterian Perspective as a Basic Stochastic Process'. Two papers were published:

'Optimal and Monopoly Towns: Degenerate Cases' in V.Henderson, ed. *Research in Urban Economics*, JAI Press, and 'Free Access and the Dynamics of the Fishery' in L.Mirman and D.Spulber, eds. *The Economics of Renewable Resource Management*, North Holland.

Klaus Stegemann last summer presented his paper 'Monopoly as a Domestic Distortion under Free Trade Conditions' (IER #379) at the Western Economic Association meetings in San Francisco and at the 11th International Atlantic Economic Conference in London. While on sabbatical, he spent most of the fall and winter terms in Ottawa where he was scholar-in-residence at the Institute for Research on Public Policy (IRPP). During that period, he produced two discussion papers, 'The Net National Burden of Canadian Antidumping Policy: Turbines and Generators' (IER #453) and 'Special Import Measures Legislation: Raising the Deterrence Level' (IER #459). He also participated actively in the public hearings of the House Sub-Committee on Import Policy (and was referred to during subsequent sessions as 'the good professor'). Last October he spent a week in Washington, D.C., where he testified during meetings of the Ferrous Metals Panel at the National Research Council. The antidumping paper (#453) was presented to an audience of government officials and other experts at an IRPP sponsored seminar and at Carleton University. The same paper was also included in the programme for the CEA meetings in Ottawa this June. An earlier paper, 'The Efficiency Rationale of Antidumping Policy and Other Measures of Contingency Protection' (#387), has been published in *Non-Tariff Barriers After the Tokyo Round* (edited by J. Quinn and P. Slayton, Montreal 1982). During April/May of this year, Klaus lectured at the European University Institute in Florence, a graduate school sponsored by the member countries of the ECC, and also presented papers at The Johns Hopkins Bologna Center and at the GATT Secretariate in Geneva. He feels justified

in saying that his sabbatical has been both productive and stimulating.

Dave Backus, enjoying time afforded by a SSHRCC fellowship, presented papers in Buenos Aires, Mexico City, London, Vancouver, and scenic Hamilton, Ontario. The search for the ultimate theory of the exchange rate commenced with 'Empirical Models of the Exchange Rate; Separating the Wheat from the Chaff,' and continued with 'What Do We Really Know?' (presented at the Canadian Economic Association Meetings in Ottawa). A third paper, 'Some Canadian-U.S. Evidence on the Insulating Properties of Flexible Exchange Rates,' reflects a recent infatuation with spectral analysis.

Richard Arnott took over as Secretary-Treasurer of the Canadian Economics Association in June 1981 which has kept him busy over the past months. His volume *Rent Control and Options for Decontrol* for the Ontario Economic Council appeared in January 1982. A brief outline of the report is given elsewhere in this newsletter. His paper, 'The Structure of Multiperiod Employment Contracts with Incomplete Insurance Markets', appeared in the February 1982 issue of the *Canadian Journal of Economics* and 'Optimal Tolls with High Peak Travel Demand' will be published in a Conference volume. He is continuing his work on moral hazard with Joseph Stiglitz. Their paper, 'Labour Turnover, Wage Structures and Moral Hazard: The Inefficiency of Competitive Markets', appeared as Research Memorandum 286 of the Econometric Research Program, Princeton University. Arnott will also be doing further work on housing as well as on a variety of other topics. He is on the editorial boards of the *Journal of Urban Economics*, of *Regional Science and Urban Economics* and of the *Journal of Regional Science*. Last year, while on sabbatical, he presented papers at Princeton, Oxford, Pennsylvania, Columbia, Virginia, and McMaster and at other professional meetings.

Charlie Beach has continued his work on computing at Queen's, producing several university reports of the development of computing at Queen's and on computing policy for the future. Now that the new IBM computers are installed and 120 screen terminals are being distributed around the campus, he is supervising the conversion of Department software and data from the Burroughs to the IBM. From this experience he produced a paper on collegial decision making in selecting a university central academic computer with D.T. Barnard and D.T.K. Mewhort which will appear in the *Journal of the Association for Educational Data Systems*. He presented a paper 'Towards Estimation of Payroll Tax Incidence' (IER 444) at the Public Finance Workshop held at Queen's in August 1981 and it is forthcoming in *Economica*. Other papers by Beach together with Ross Finnie have appeared since the last Newsletter: 'Total and Indirect Family Background Effects on Occupational Status and Earnings of Canadian Males' (IER 440) and 'Simultaneity and the Earnings - Generation Process for Canadian Men' (IER 446). A paper he wrote with Steve Kaliski 'Some Aspects of Labour Market Behaviour in Canada: A Study Based on Gross Flows between Labour Market States 1976-1980', was presented in Washington in May. Two other papers with Kaliski, have been issued: 'Measuring the Duration of Unemployment from Gross Flow Data' and 'The Impact of the 1979 Unemployment Insurance Amendments', (IER 482). He has worked on Lorenz curves with Russell Davidson, 'Unrestricted Statistical Inference with Lorenz Curves and Income Shares', (IER 464) and with Jim Richmond, 'Joint Confidence Bands for Lorenz curves', (IER 485). Together with Robin Boadway and J.O. Gibbons he has produced the paper 'Social Security and Aggregate Capital Formation Revisited: Dynamic Simultaneous Estimates in a Wealth Generation Model' (IER 478). He is continuing work on a major project investigating the labour market activity in Canada undertaken with Steve Kaliski.

Robin Boadway completed his first full year as Head of the Department in July 1982. His 'Note on the Method of Taxation and the Provision of Local Public Goods', appeared in the *American Economic Review*. Work with Neil Bruce and Jack Mintz on corporate tax policy includes 'Corporate Tax Reform in Canada', published in a volume edited by W. Thirsk and J. Whalley, Canadian Tax Foundation and 'Corporate Taxation and the Cost of Holding Inventories', in the *Canadian Journal of Economics*. Their paper '1981 Budget: Implications for the Corporate Tax' was prepared for the Department of Finance Roundtable Discussion, December 1981. As a result of the special interest he and Frank Flatters have taken in fiscal federalism, three papers appeared: 'The Role of Equalization in Canada', in a conference volume edited by C. McLure and P. Mieszkowski for Lexington Press; 'The Economics of Equalization', for the Economic Council of Canada; and 'Efficiency and Equalization Payments in a Federal System of Government' (with F. Flatters), under revision for the *Canadian Journal of Economics*. These papers are more fully discussed in a special article in this newsletter. Flatters and Boadway presented a paper 'The Equalization of Resource Rents in a Federal State' at the Taxation of Resources for Economic Development Conference on Federalism, Lincoln Institute, Cambridge, Mass. in September 1981. Boadway presented 'Equalization and Regional Economic Development', at the Institute for Policy Analysis conference on Barriers to Inter-provincial Trade in Toronto, November 1981. He is continuing work with Bruce, Flatters and Mintz and more papers will appear in both these areas. He is also working on a book on welfare economics with Neil Bruce.

Neil Bruce's Ph.D. Thesis *The Effects of Taxation in Simple General Equilibrium Models*, is to appear in Outstanding Dissertations in Economics Series published by Garland (1982). The long list of his work with Boadway appears above. In addition, his paper 'Structural

Changes in the Canadian Trade Balance During the Seventies,' with H. Rostami appeared in the John Deutsch Roundtables Conference Volume published by the Canadian Tax Foundation, 1982. A paper with Rick Harris 'Cost Benefit Criteria and the Compensation Principle...' appeared in the *Journal of Political Economy* (1982). The *Journal of Monetary Economics* published his article 'Some Macroeconomic Effects of Income Tax Indexation'. He is working on a number of manuscripts with Doug Purvis in open economy macroeconomics. He has also started work on the theory of price inflexibility.

Lorne Carmichael completed his thesis *Implicit Contracting and Seniority Rules* for Stanford in 1981. He dealt with firm specific human capital in two papers produced in the last year: 'Firm Specific Human Capital and Seniority Rules', National Bureau of Economic Research, Conference Paper #101, (1981) and 'Firm Specific Human Capital and Promotion Ladders', Stanford Workshop on Factor Markets Research Paper #6, April 1981. He is currently working on several aspects of labour contracts, including payment by relative performance, reliance in human capital investments, and the provision of job security.

Rod Fraser continued as Associate Dean of Arts and Science. He was chairman of the Council of Ontario Universities Committee on Operating Grants for 1981/82. Together with R.M. Bird he published 'Commentaries on the Hall Report' which was issued by the Ontario Economic Council in its discussion paper series. He is working on incentives for the efficient delivery of health care.

Slobodan Djajic has been studying the effects of macroeconomic policies under alternative exchange-rate-management rules. This has resulted in two papers, one entitled 'Currency Management and Economic Stability', IER #428, and another entitled 'Balance-of-Payments Dynamics under Fixed Floating', IER

#458. He presented a paper 'Intermediate Inputs and International Trade: An Analysis of the Real and Monetary Aspects of an Oil Price Shock', at the Queen's - Toronto - Western conference in Toronto in 1981. He will be working with James Brander on the problem of taxing a foreign producer of an exhaustible resource.

Alan Green delivered his paper 'Net Income Originating in the Transport and Communications Sector: Methods and Results' to the Eleventh Conference on Quantitative Methods in Canadian Economic History, 1981, held at Queen's University. His study, 'The Economic Implications of Migration to Newfoundland', was issued as Discussion Paper No. 189 by the Economic Council of Canada, 1981. He was project director and editor of 'Ontario Metal Mining: A Statistical Compendium'. The work includes the results of a survey on long term labour costs in the Ontario metal mining industry. This is Volume II of an ongoing project involving the collection of mining data in a format more useful to researchers. He coordinates and chairs a joint seminar on Economic and Social History. In addition to bringing distinguished visitors to the University, the seminar last year included papers delivered by faculty members from the departments of History, Geography, Engineering and Economics. This seminar is now in its third year of operation. He has been very active in University and department administration as a Chairman of the Pension Board, and of the Graduate Council, as a member of the Senate and of the ad hoc committee to review the new Master of Industrial Relations Program. He is currently working on extended estimates for total factor productivity in the Canadian Steel Industry. He has begun work on an economic history text for Canada. His long-term study of total factor productivity for Canadian railroads continues. With most of the data reconstruction finished, the analysis has begun.

Martin Prachowny completed his 270 page manuscript, *Macroeconomic*

Analysis for Small Open Economies while on leave at MIT. He presented this, and other research papers, to seminars at MIT, Boston College, and McMaster University. Last September, his paper, 'Sectoral Conflict Over Stabilization Policies in Small Open Economies', was published in the *Economic Journal*. In addition to serving as Chairman of Undergraduate Studies, he is a member of the Editorial Board of the *Canadian Journal of Economics*, and referees for a number of professional journals.

Ross Milbourne spent the 1981-82 academic year on leave as Reserve Bank of Australia Senior Fellow in Economic Policy. During the year he also attended three conferences where he presented three papers: the Canadian Economic Theory Conference ('Optimal Money Holding Under Uncertainty'); the Western Economic Association Meetings ('Target-Threshold Modelling of Money Holdings'); and the Canadian Conference on Applied Statistics ('Cash Balances as a Random Walk'). The proceedings of this last conference are published under the title *The Second Canadian Conference on Applied Statistics*. Other papers, written during the year and/or accepted for publication include 'On the Definition of Money and the Medium of Exchange', 'The Australian Demand For Money Function', 'The Passivity of the Velocity of Circulation', 'Credit Flows and the Money Supply', and 'A Comparison of Australian Monetary Models'.

Jack Mintz, whose work with Robin Boadway and Neil Bruce is outlined above, participated in numerous professional meetings last year. He attended seminars at Harvard, Tel Aviv, Western, Bergen (Norway), Louvain-la-Neuve, and an Industrial Organization policy conference in Belgium. In November of last year, his paper, 'Some Additional Results on Investment, Risk Taking and Full Loss Offset Corporate Taxation with Interest Deductibility', was published in the *Quarterly Journal of Economics*. Another article, 'A Note on Multiproduct Economies of Scale and Economies of Scope', was recently

published in the journal *Economic Letters*. A third paper, 'Mixed Enterprises and Risksharing in Less Developed Countries', has appeared in a volume edited by L.Jones and entitled *Public Enterprises in Less Developed Countries* published by Cambridge University Press. A paper will soon be published in *Recherches Economiques de Louvain* is entitled 'Neutral Corporate Taxation, Risk Taking and the Optimal Profit Tax'. Working papers recently completed include 'Determining the Subsidy in Government Credit Programs' (Economic Council of Canada), 'The Effects of Taxation on Risk' (Economic Council of Canada), 'Conflict of Taste and Claim' with R.Simeon (Institute of Intergovernmental Relations Discussion Paper) and 'Shadow Pricing of Labour and Capital in a General Disequilibrium Model' with M.Marchand and P.Pestieau (CORE discussion paper).

In addition to serving as a referee for a number of professional journals, Mintz has recently been interviewed by the popular press, including *The Financial Times of Canada*, *Today Magazine* and the C.B.C. radio program *Sunday Morning*.

Douglas Purvis, whose primary research interest is open economy macroeconomics, presented papers to a large number of seminars and conferences last year. In May, he presented the paper, 'Oil Disinflation, and Export Competitiveness: A Model of the Dutch Disease', (written with William Buiters), to the Canadian Economics Association meetings in Halifax. In June he attended the Fifth Paris-Dauphine Conference in International Monetary Problems where he presented a paper co-authored with R.W.Jones entitled 'Different Responses to Common Shocks: The Role of Purchasing Power Parity'. He also participated in the International Institute for Economic Studies Conference on the Structural Aspects of Stabilization Policies at Stockholm in August, where the paper, 'Sectoral Shocks in a Dependent Economy', (written with J.Peter Neary) was presented. In November, he presented another paper coauthored with Neary, entitled 'Real Adjustment

and Exchange Rate Dynamics', to the National Bureau of Economic Research Conference on Exchange Rates and Macroeconomics in Cambridge Mass. In addition to these conferences, Purvis also participated in the OECD Symposium on Recent Developments in Macroeconomic Theory and Policy (Paris); the Symposium in Memory of Arthur Okun, (New York); the International Institute for Applied Systems Analysis Round Table on Industrial Policy, (Vienna); and the Economic Society debate on Thatcherism and Monetarism in Dublin, and presented seminars at various universities. Last November, his paper, 'Diverse Information and Market Efficiency in a Monetary Model of the Exchange Rate', (coauthored with R.G.Harris), appeared in the *Economic Journal*. His paper, 'James Tobin's Contributions to Economic Science', appeared in the *Scandinavian Journal of Economics*. This paper was commissioned by the Committee to Award the Nobel Prize in Economics to honour the 1981 recipient of this prestigious award.

During the past year, **Nancy Olewiler** continued her research in natural resource economics while on leave at U.B.C. Her paper, 'The Regulation of Natural Resources in Canada: Theory and Practice', was published by the Economic Council of Canada as Technical Report 4 in the Regulation Reference series. She has recently completed a paper entitled 'Capacity Constraints and Destructive Competition in the Extraction of Non-Renewable Natural Resources'. Future research plans include examining models of non-renewable natural resource extraction and markets, and investigating the role of women in Canadian labour markets. In addition to being on the University's Graduate Council, Nancy has served on a number of departmental committees and has worked as an advisor and research associate for the Centre for Resource Studies. She has also acted as a referee for a number of professional journals and research institutes.

W.Donald Wood continues to be heavily involved with the development

of a multidisciplinary master's program in industrial relations sponsored by the Industrial Relations Centre, the Department of Economics, the Faculty of Law, and the School of Business. This program has recently been approved by Appraisals Committee and the Ontario Council on Graduate Studies; it is hoped the program will be introduced at Queen's in September, 1983.

He is Senior Editor and Contributing Author of 'The Current Industrial Relations Scene in Canada, 1982 edition' (Pp. 529), the annual reference volume published by the Industrial Relations Centre.

W.D.Wood served as Director and Chairman of the Centre's three annual one week Personnel and Industrial Relations seminars which were again heavily over-subscribed and attended by representatives from a wide range of organizations across Canada.

He was guest speaker at the CBC - Employee Relations Conference, Ottawa, the Canadian Daily Newspapers Association Annual Conference, Toronto, the B.C. Municipal Association, Annual Conference, Harrison, B.C., the Federal Crown Corporations Industrial Relations Conference, Ottawa, the International Compensation Association (Conference), Toronto, and the Institute of Chartered Accountants of Ontario, Annual Conference, Toronto.

John Baldwin, after completing his work for the Director of Investigation and Research on the 'State of Competition in the Canadian Petroleum Industry', returned to the quieter atmosphere of Queen's this year. The only foray to Ottawa was to appear before the House of Commons Committee on Transportation where he presented a paper on airline deregulation. He also finished a paper on the political economy of policy in the energy sector between 1958 and 1975 but the majority of his research time has been spent on a project for the Economic Council of Canada on the adaptation process of the Canadian manufacturing sector in the 1970's. At the present time, exit and entry models are complete. Future work will focus on mergers, the diversifica-

tion process and the reason for productivity changes.

James Mackinnon is on sabbatical at the University of California, San Diego pursuing his main research interest - theoretical econometrics. As a member of the productive research team of Mackinnon and Davidson he has co-authored several important papers. Their joint paper 'Several Tests for Model Specification in the Presence of Alternative Hypotheses' recently appeared in *Econometrica*. Other papers in preparation, and co-authored with Davidson, include the titles: 'Inflation and the Savings Rate'; 'Model Specification Tests Based on Artificial Linear Regression'; 'Tests for Model Specification in the Presence of Alternative Hypotheses: Some Further Results'; and 'Small Sample Properties of Alternative Forms of the Lagrange Multiplier Test'. Two other papers have been written in this area; one co-authored with Davidson entitled 'Efficient Estimation of Tail-area Probabilities in Sampling Experiments' is forthcoming in *Economics Letters*, while the other, written alone, ('Model Specification Tests Against Non-nested Alternatives'), will appear in *Econometric Reviews*. Mackinnon has also recently completed a paper with Ross Milbourne ('Monetary Anticipations and the Demand for Money'), and another co-authored with G.Macdonald ('A Convenient Way to Estimate Linear Regression Models with MA(1) Errors'). Future research will focus on testing the validity of econometric models. He has been particularly busy presenting invited papers to audiences across North America and in the U.K. In the past year, he participated in seminars at Harvard, MIT, Bell Laboratories, U.S.C., and the Universities of Western Ontario, Alberta, Saskatchewan, California (San Diego), Leeds, Manchester and LSE.

Tom McCurdy has completed his PhD thesis - entitled *Capital and Growth Theory in the Medium Term: A Framework for Non-Steady-State Dynamics* - for the London School of Economics. During the past year he presented papers in the Queen's Macro and Micro Workshops, at the Universi-

ty of Guelph, at the Seventh Canadian Conference on Economic Theory, and at the Canadian Economics Association Annual Meetings. He also participated as a panel discussant in a multi-disciplinary symposium organized by the Department of Political Studies. His present research activities include: extensions and applications of his dynamic growth model; a comparison of classical, neo-classical, and Keynesian theories of general equilibrium; and testing for speculative activity in asset markets. His paper 'Non-Steady-State Dynamic Growth Theory' was issued as IER Discussion Paper #484.

During the past year, **Richard Lipsey** pursued his research interests in the fields of location theory and macroeconomic stabilization policies. In November, his presidential address to the Canadian Economics Association entitled 'The Understanding and Control of Inflation: Is there a Crisis in Macroeconomics?' was published in the *Canadian Journal of Economics*. An excerpt appeared in last year's Newsletter. His survey of Supply-Side Economics was recently published by the Ontario Economic Council in the monograph *Policies for Stagflation: Focus on Supply*. Meanwhile, the successful research team of Lipsey and Eaton added to their long list of achievements by having their paper 'Capital, Commitment and Entry Equilibrium' published in the spring 1982 volume of the *Bell Journal of Economics and Management Science*. Another paper co-authored with Eaton, and entitled 'An Economic Theory of Central Places', is to appear in a future volume of the *Economic Journal*. Lipsey, not restricting himself to the two fields of research outlined above, combined with Frank Flatters to prepare the manuscript *Common Ground for the Canadian Common Market*. This study of the economic and political ties that bind Canada together is described in more detail elsewhere in this newsletter. In December of last year Lipsey presented his paper, 'The Government and Inflation', to the American Economics Association Session in Honour of Arthur Okun in

Washington, D.C. Other special honours include an invitation to prepare an article honouring the selection of 'The General Theory of Second Best' as a reference classic - one of the all-time most referenced articles in the scientific literature. A review article by H.Grubel revealed that Lipsey is the Canadian economist whose works are most cited according to the *Journal of Citations*.

Dan Usher presented his work on *The Economic Prerequisites to Democracy*, as part of a two day Symposium on Liberalism, Marxism and Democracy, held at Queen's in March 1982. He has completed a study 'The Benefits and Costs of Firm Specific Investment Grants' for the Economic Council of Canada. His paper 'The Private Cost of Public Funds' has appeared as IER Discussion Paper 481. His 'Comment' on K.Arrow's 'The Rate of Discount on Public Investments with Imperfect Capital Markets' is to appear in a book on public investment in electricity edited by R.Lind. In addition, his review of Maxwell and Pestieau on the 'Economic Realities of Contemporary Confederation' was published last August in the *Canadian Journal of Economics*. His article, 'Two Prescriptions for the American Economy', which is a review article of Thurow's *The Zero Sum Society* and Gilder's *Wealth and Poverty*, recently appeared in the *Queen's Quarterly*.

Mac Urquhart presented preliminary annual estimates of Canada's Gross Domestic Product by industry in Canada 1870 to 1926 to the Eleventh Conference on Quantitative Methods in Canadian Economic History held at Queen's University 27-28 February 1981. These estimates are part of a project to estimate Gross National Product and its components for the same period (1870 to 1926) and are the product of collaboration, on Mac Urquhart's initiative, of several persons at Queen's and elsewhere, including A.Green, R.M.McInnis, D.M.McDougall and M.C.Urquhart of Queen's, Professor T.K.Rymes of Carleton, Professor A.M.Sinclair of Dalhousie and Pro-

fessor Marion Steele of Guelph. He continues work on this project.

He also presented a paper at the thirty-third meeting of the Federal-Provincial Committee on Agricultural Statistics, held 9 and 10 March 1982 in Toronto entitled 'The Development of a Statistical System in Canada: The Contribution of Three Men'. It has been reproduced in the *Summary Report of the Thirty-Third Federal-Provincial Committee on Agricultural Statistics*, an official document.

Frank Lewis, continuing his research in the area of economic history, recently had his paper 'Farm Settlement on the Canadian Prairies: 1898 to 1911' published in the *Journal of Economic History*. Another paper, co-authored with R.M.McInnis, and entitled 'Agricultural Output and Efficiency in Lower Canada, 1851' is forthcoming in *Research in Economic History*, and a review by Lewis of *Unequal Beginnings* by John McCallum appeared in the November issue of *Social History*. His current research interests include the timing of Canadian railway construction, the relationship between fertility rates and savings rates in the nineteenth century U.S., and the savings rates of the aged in Canada.

Marvin McInnis, whose paper 'The Changing Structure of Canadian Agriculture, 1867-1897' appeared in the March volume of the *Journal of Economic History*, has continued his research in early Canadian economic history. During the past year he participated in seminars at the Economic History Association Annual Meetings in St. Louis, and at the University of Alberta, and the Universite de Quebec a Montreal. The paper, 'Agricultural Output and Efficiency in Lower Canada, 1851' which was co-authored with Frank Lewis, will appear in a forthcoming volume of *Research in Economic History*. Other recently completed papers include: 'A Functional View of Canadian Immigration'; 'Perspectives sur l'agriculture du Bas - Canada au milieu du 19 siecle'; and 'From Timber to Sawn Lumber: the Canadian Lumber

Industry in the Latter Half of the Nineteenth Century'. The latter was presented to the International Congress of Economic History at Budapest, Hungary in August. In addition to receiving continued financial support for his research on the *Historical Atlas of Canada*, McInnis recently received SSHRC support for a project investigating the role of agriculture in Canadian economic development, and last fall, was commissioned by the Ontario Secondary School Teachers Federation to study the economic effects of eliminating grade 13 in Ontario Secondary Schools.

David Smith has been an SSHRC Leave Fellow at Harvard University where, from January, he was a Visiting Scholar at the University Consortium for Research on North America. His current research has been on the organization of labour markets and on the international transmission of economic policy ideas. As described later in the Newsletter, he will be the interim Director of the John Deutsch Memorial for the Study of Economic Policy.

Steve Kaliski's paper 'Labour Turnover in Canada: A Survey of Literature and Data' was recently published by Labour Canada and by the Industrial Relations Centre at Queen's. His paper 'Inflation, Stagflation and Macroeconomics: Does Received Macro-Theory Explain our Economic Circumstances' appeared in the April 1981 issue of *Canadian Public Policy*. He has joined forces with Charlie Beach to investigate the Canadian labour market further. Tentatively entitled 'Labour Market Behaviour in Canada 1978-79 - An Exploration with Micro Data', this major research project is expected to take two years to complete. A paper based on this research was presented to the Eastern Economics Association in Washington in April, 1982 and two short pieces based on gross flows data were brought out as an IER discussion paper. In addition to his research activity, he has been active serving as a member of the Graduate Council and as Chairman of an Advisory Research Sub-Committee of the

School of Graduate Studies. Kaliski also acts as a referee for a number of professional journals and agencies, including the *Canadian Journal of Economics*, *Canadian Public Policy*, and the National Bureau of Economic Research.

During the past year **Jon Harkness** continued his research in the areas of international trade and open economy macroeconomics. In February, his paper 'Intermediate Inputs, Expectations and Stochastic Equilibrium Under Flexible Exchange Rates' was published in the *Canadian Journal of Economics*. His paper 'Cross-Section Tests of the Hecksher-Ohlin Theorem' appeared in the December 1981 issue of the *American Economic Review*. He also presented his paper 'OPEC as a Hotelling Monopolist: The Macroeconomic Implications' to seminars at the Université de Québec a Montreal and at the University of Western Ontario. Further research into the macroeconomics of trade in energy and into Canada's changing comparative advantage is currently being undertaken. In addition to serving on the editorial board of *Canadian Journal of Economics*, Jon has refereed articles for a number of professional journals and professional organizations.

Scott Gordon holds a joint appointment at Queen's and at Indiana University where he is Distinguished Professor of Economics and also an associate member of the History and Philosophy of Science Department. He gave the Corry Lecture at Queen's last winter on the Scottish origins of Social Science. He regularly teaches a course in the History of Economic Thought during the summer session. He recently published a paraphrase version of Keynes' General Theory in the Queen's economics department's Discussion Paper series.

Gordon Sparks has been on leave at MIT this year and will be staying a further year. His paper 'Expectations and Monetary Policy in an Open Economy: Should Canada Follow U.S. Interest Rates?' was issued as MIT Working Paper No. 293. He presented 'Expecta-

tions and the Choice of Monetary Policy Instrument in an Open Economy to the Eastern Economics Association' and 'Intertemporal Choice, the Public Sector and Canada's Balance of Payments' to the Canadian Economics Association. He will be continuing his work on monetary policy and the exchange rate. The first Canadian edition of *Macroeconomics* by R. Dornbusch, S. Fischer and Sparks was published in 1981.

A paper by **Russell Davidson**, with Richard Arnott and David Pines, 'Housing Quality, Maintenance and Rehabilitation' will appear in the *Review of Economic Studies*. They are continuing their work on housing quality and maintenance during this summer. Davidson continued his work with James MacKinnon on testing the validity of econometric models. The following papers have resulted: 'Efficient Estimation of Tail-area Probabilities in Sampling Experiments', in *Economics Letters*; 'Some Non-nested Hypothesis Tests and the Relations Among Them', forthcoming in the *Review of Economic Studies*; 'Tests for Model Specification in the Presence of Alternative Hypotheses: Some Further Results', (IER 430); and 'Small Sample Properties of Alternative Forms of the Lagrange Multiplier Test', (IER 439). They will be producing further papers in this area. Davidson's paper, 'Economic Dynamics', will appear in *Aspects of Self Organization in the Natural and Social Sciences* (ed. W.C. Schieve) for the University of Texas Press. He gave talks at Laval, Université de Montreal and Sherbrooke in French, and at Princeton, Harvard, MIT, and Bell Labs - presumably in English.

Rick Harris was on leave at U.B.C. for 1981-82. Next year he will be at Queen's, but on leave, working on industrial structure and protection for the Ontario Economic Council and on the foundations of applied welfare economics. The following papers by Harris were published this year: 'Trade and Depletable Resources', in the *Canadian Journal of Economics*; 'Non Convexities and Continuous Time Investment

Theory', in the *Review of Economic Studies*, (with R.Davidson); and 'The Consequences of Costly Default: A Rejoinder', in *Economic Inquiry*. A paper with N.Bruce, 'Compensation Criteria and Cost-Benefit Analysis' will appear in the *Journal of Political Economy*.

Duncan McDougall has the following texts in print, at present. Dernberg and McDougall, *Macroeconomics* is in its sixth edition. McDougall's new introductory text, *Economics*, with James R.Quirk of Caltech appeared in 1981. It is also issued in two volumes in paperback.

Mike Abbott is a visiting research associate in the Industrial Relations Section of the Department of Economics at Princeton, while on sabbatical. He is working on an undergraduate text in labour economics with Orley Ashenfelter. His paper 'An Application of Model Specification Tests to Econometric Models of Aggregate Strike Frequency in Canada' was an invited paper at the May 1982 meetings of the Canadian Economics Association in Ottawa. He presented his paper 'Economic Models of Aggregate Strike Frequency in Canada: A Reconsideration' to the Labour Economics Seminar in the Department of Economics at the University of Toronto. With Pradeep Kumar, he is working on estimates of the effects of unionism on the components of labour compensation in Canadian manufacturing industries and on cross-sectional evidence on relative wages and unionism in Canadian manufacturing.

Frank Flatters visited Hungary in May 1982 to present a paper on Canadian industrial policies and to begin research on a parallel paper on the Hungarian economy. His paper, 'An Introduction to Some Current International Policy Issues in Canada' appeared in I.Dobozi (ed.), *The Economic Choices of Small Countries: Proceedings of the First Canadian-Hungarian Economic Roundtable*. He continued work on equalization payments, as is shown in the special article in this newsletter on

Fiscal Federalism. He presented his paper 'The Federal Budget and Equalization' to the Canadian Institute of Public Administration, Toronto Group, and his paper 'The Economics of Equalization', to the annual meeting of Queen's Institute for Intergovernmental Relations. He also presented papers on equalization at meetings at the Economic Council of Canada and the Department of Finance, Ottawa. His joint paper with Robin Boadway 'Efficiency, Equity and the Allocation of Resource Rents in a Federal State: The Case of Canada', was presented at the TRED Conference, Cambridge, Massachusetts and will be published in a conference volume, and their study 'Equilization in a Federal State: An Economic Analysis' was published by the Economic Council of Canada in August. He is currently Chairman of Graduate Studies. He is continuing work on federal-provincial transfers with Robin Boadway and beginning research on industrial policies in small open economies.

Gordon Fisher has been on sabbatical leave in 1981 in Australia, Montreal and Paris. Two papers with M.McAleer, appeared in 1982: 'Testing Separate Regression Models under Mis-specification, with Application to Structural Change in Economics', in T.D.Dwivedi (Ed.), *Topics in Applied Statistics*, and 'Testing Separate Regression Models Subject to Specification Error', in *Papers and Proceedings, Journal of the American Statistical Association*. Another paper with M.McAleer and Diana Whistler, 'A Note on Identifiability in the Linear Expenditure Family', was accepted for publication in *Australian Economic Papers*. A paper with Alan Gregory, 'An Invariance Property of Generalized Classical Linear Estimates', was in *Economics Letters*, in 1981. Fisher's paper 'Two Types of Residuals and the Classical Identifiability Test Statistic', was published in E.G.Charatsis (Ed.), *Selected Econometric Papers in Memory of Stefan Valavanis*. Two further papers with M.McAleer: 'Creeping Structural Change and Canadian Trade Union

Growth' and 'The Geometry of Specification Error' were presented at conferences and seminars in Canada, the U.S.A., Australia, and the Netherlands. Fisher also presented papers in New Zealand, Singapore and Bangkok.

QED Baby Boom

To Nancy Olewiler and Rick Harris, a daughter, Jessica Harris, on 15 October 1981.

To Donna Lounsbury and Frank Lewis, a son, Joshua Aaron Lewis, on 6 April 1982.

To Adrienne and John Baldwin, a daughter, Robyn Alyssa Barbara Baldwin, on 16 July 1982.

Mac Urquhart Academic Fund

The proceeds of the Mac Urquhart Academic Fund, announced in the Summer 1980 QED Newsletter, have been used to establish the M.C.Urquhart Book Prizes in Economics 110.

The fund was established by former students and colleagues of Mac Urquhart to honour him in the year of his official retirement, although as the newsletter noted in 1980 'he showed no retiring characteristics as he headed off for an active year in the Canadian Studies Chair at the University of Edinburgh.' Retiring characteristics have not emerged since then as can be seen by reading about his activities in the Faculty news section.

Mac has always taken a special interest in the introductory principles course, Economics 110, now swollen to include 1200 students in 20 sections. Thus Book prizes given annually in his name to outstanding students in this course are appropriate. Last year ten prizes were awarded. It may interest readers to know that the book selected was J.M.Keynes' *Essays in Biography*.

The Department of Economics is grateful to the donors for encouraging students of exceptional calibre.

David C.Smith named Interim Director of John Deutsch Memorial for the Study of Economic Policy

The Department of Economics is currently exploring ways to expand the role of the John Deutsch Memorial.

At a department meeting this past spring department members unanimously recommended to R.W.Boadway, the head of the department that he name David C.Smith interim director. Dr Smith has accepted the head's invitation and will start this fall.

It is suggested that the Memorial take a greater role in Canadian economic research and public policy debates. Dr Smith will be looking at ways of accomplishing this.

The proposed revised operating structure of the Memorial, subject to the approval of Queen's, would maintain the original functions but provide mechanisms to move ahead more strongly in fulfilling them. The close integration of the Department of Economics and the Memorial would be preserved, thereby providing strong incentives to achieve the highest standards of the economics profession in its work and to prevent the development of a narrow ideological bias. Along with being a catalyst for research on policy issues, the Memorial is also to contribute to the public educational process through such means as special programs of help to economists in private institutions, in governmental organizations, and in other academic departments. Clearly much of its success will depend on opportunities for securing financial support. Unfortunately, it is perhaps an inauspicious time for such support, given the state of the economy, but surely, it is also, given the state of the economy, a particularly vital time to try to develop a first class centre for the study of economic policy.

The department expects to have detailed proposals of the basic strategy and initial steps to be taken in developing the John Deutsch Memorial within the next year. In the meantime, suggestions from friends of the department will be welcomed.

Recent PhD Degree Recipients 1980 to 1982

1980 - OCTOBER

Rafati, Reza

Exchange Rate Risk and the Long-term Borrowing Behaviour of Canadian Provincial Governments and Private Corporations Under Different Exchange Rate Regimes.

Supervisors: M.F.J.Prachowny and G.R.Sparks

1981 - MAY

El-Sheick, Sala Ismail

An econometric policy model of Egypt. Supervisor: G.R.Sparks

Italiano, Joseph Angelo

Canadian chartered banks' deposit-rate setting and portfolio selection.

Supervisors: C.M.Beach, M.F.J.Prachowny and G.R.Sparks

McDonough, Lawrence Cecil

A forward looking model of neo-classical investment behaviour with application to five Canadian manufacturing industries.

Supervisors: R.W.Boadway and R.G.Harris

Peters, Michael

Labour markets and uncertainty. Three essays in the economics of uncertainty.

Supervisors: R.G.Harris and J.M.Mintz

Woroby, Tamara Marta

Changes in wage inequality. The Canadian experience, 1901-1921.

Supervisors: C.M.Beach and A.G.Green

1981 - OCTOBER

Askari-Rankouhi, Mostafa

A disequilibrium econometric model of the Canadian institutional mortgage market.

Supervisors: J.G.MacKinnon and G.R.Sparks

Leach, John Edward

The social costs of inflation under alternative formulations of the demand for money.

Supervisors: N.Bruce and D.D.Purvis

Matsebula, Michael Sisa

Fiscal policy effects on growth and structural change in a dualistic economy: Simulations for Swaziland.
Supervisors: C.M.Beach and J.Harkness

McAleer, Michael John

Testing economic hypotheses.
Supervisors: G.R.Fisher and J.G.MacKinnon

Sarlo, Christopher Anthony

Reduced form models of the Canadian economy: Fixed and flexible exchange rates.
Supervisors: M.F.J.Prachowny and G.R.Sparks

Ware, Roger

Three essays on the economics of differentiated markets.
Supervisor: R.G.Harris

1982 - MAY

Daly, Michael Joseph

An analysis of registered retirement savings plans and their role in Canada's retirement income system.
Supervisor: R.J.Arnott

Gregory, Allan Walter

The demand for money in Canada: An econometric evaluation of the conventional specification.
Supervisors: D.D.Purvis and G.R.Fisher

Hellsten, Martin Gary John

Some extensions of the forestry models of Martin Faustmann.
Supervisors: R.W.Boadway and N.D.Olewiler

Naqib, Fadle Mustafa

The impact of public pensions on capital formation and the supply of labor.
Supervisor: D.Usher

Rapanos, Vassilios

Factor specificity and intermediate goods in a small open economy.
Supervisor: F.R.Flatters

Raynauld, Joseph Andre Jacques

An aggregate short-run Canadian macro model: Multiple time series analysis and rational expectations.
Supervisors: C.M.Beach and D.D.Purvis

Semkow, Brian Wallace

Three essays on the law and economics of failing to cure.
Supervisors: R.J.Arnott and G.Calebrasi (Yale)

EDITOR: Alison Morgan
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