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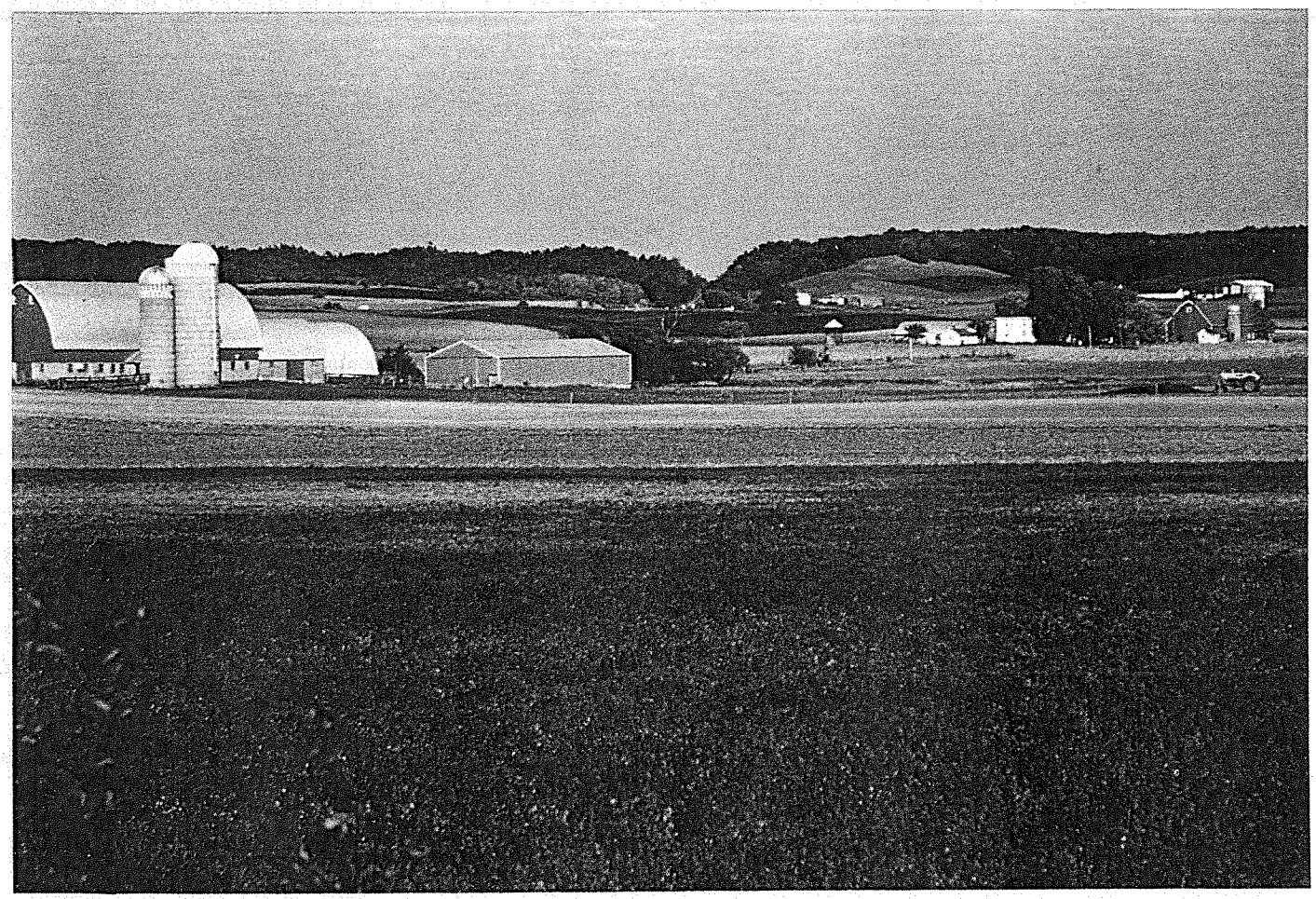

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Thinking About the Deficit and the Recent Poor Performance of the Canadian Economy

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Our $30 billion federal deficit, some 7.5 percent of GNP, escalated suddenly in 1982. Although some observers view the deficit as evidence of lax fiscal management, and its solution as one of raising taxes and cutting expenditures, the issues are more complicated than that. The sheer size of the federal budget (total expenditures in 1983 net of transfers to other governments were about 20 percent of GNP) means that any significant tax or expenditure changes would have important effects on the economy as a whole. In thinking about the reasons why a huge deficit suddenly appeared, and the circumstances in which it can be effectively dealt with, the following analysis may be useful. For problems of this kind economists make use of the following basic equation:

Government expenditures on goods and services, current and capital (G) + exports of goods and services (X) + Gross Private Investment (I) must be equal to Government Revenues net of Transfer Payments (T^n) + imports of goods and services (M) + Gross Private Savings (S)

Gross private savings include all depreciation allowances, plus earnings retained by corporations, plus personal savings of households. This basic equation can be written:

$$G + X + I = T^n + M + S$$

Economists often label the left hand side of this equation as injections, meaning that all these expenditures inject funds into the income stream. The left hand side is labelled withdrawals, that is, they are components of earned income or income received that are not being returned to the income stream. The terms on the right hand side are usually viewed as functions of income; that is, they increase when income is rising and fall when income is declining. This can be shown as follows:

$$G + X + I = T^n(y) + M(y) + S(y)$$

where the term y is used to designate income. If we rearrange these terms we obtain:

$$G - T^n(y) = (S(y) - I) + (M(y) - X)$$

This last equation can be interpreted as showing that the government sector deficit must equal the

private sector surplus plus net foreign savings used in Canada. A private sector surplus means that gross private savings exceed gross private investment in Canada. Alternatively if the government sector is running a surplus this will be balanced by the sum of a private sector deficit, plus net foreign lending by Canada to other countries. As will be shown later, for this equation to hold, only the sum of the two items on the right hand side must be equal to the government sector deficit or surplus.

For simplicity, let us at first assume that our current account remains in balance, that exports are always equal to imports. Then our equation becomes:

$$G - T^n(y) = S(y) - I$$

In these circumstances a government sector deficit must always be equal to the private sector surplus. A government sector surplus will be matched by a private sector deficit.

Let us now consider this relationship for Canada over the years from 1947 to 1983. The relevant data are shown in Figure 1.

Over most of this period the private sector in Canada was running a deficit in the sense that the level of gross investment almost consistently exceeded the level of gross private savings. Up until 1982, even in those few years when gross private savings exceeded gross private investment, the resulting private sector surplus was comparatively small. Thus, the period as a whole was one in which a government sector surplus could be anticipated in many years. As the bottom line in Figure 1 shows, such a government surplus occurred in some 19 of these years. As long as the private sector is returning more funds to the income stream through its investment expenditures than are being withdrawn through private sector savings, incomes will be rising and the economy will move towards a high employment level. In these circumstances, governments will find their budgets moving into a surplus position or they will have an incentive to deliberately create such surpluses to avoid an overstimulation of the economy.

On the other hand, with the virtual collapse of private sector investment in 1982 as a result of the excessively tight monetary policy pursued by the Bank of Canada, private investment declined by an amount equal to some 6 percent of GNP. It was virtually inevitable that the government sector would move into a large and matching deficit position.

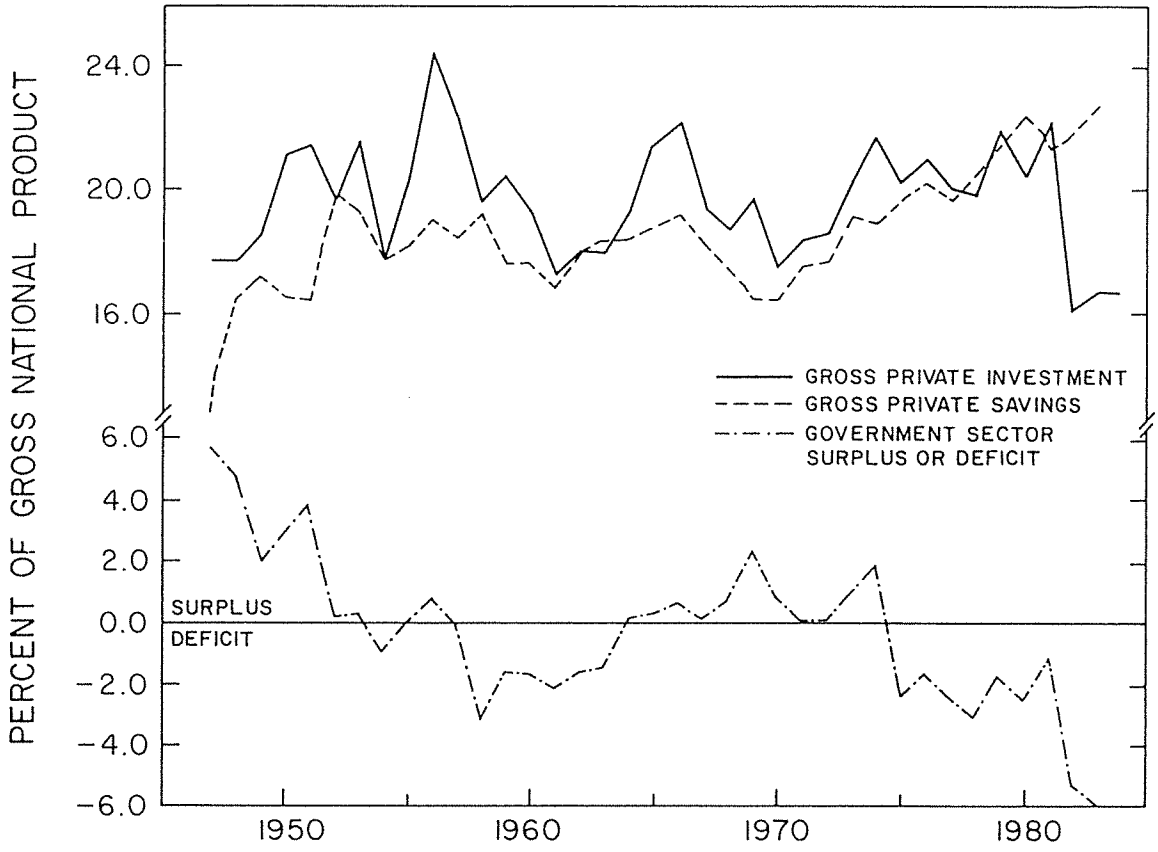
Given the fact that the basic relationship between private sector investment and savings has been generally favourable towards a government sector surplus throughout the postwar period (until 1982), why do we find two rather extended periods of deficits? The two periods are from 1958 to 1963 and from 1975 to 1981. The explanation lies with the role of the foreign sector, to an analysis of which I now turn.

If we rearrange the basic equation shown at the bottom of page 1 we obtain:

$$I - S(y) = (T^n(y) - G) + (M(y) - X)$$

Figure 1

GROSS PRIVATE DOMESTIC INVESTMENT AND GROSS PRIVATE SAVINGS, CANADA, 1947 TO 1983



An examination of Figure 1 shows that private sector investment has shown large fluctuations over the postwar period. For example, it reached a peak of 24.5 percent of GNP in 1956 only to decline to 17.2 percent by 1961. It subsequently rose to a peak of 22.2 percent in 1966 and fell to 17.4 percent in 1970. As is evident from Figure 1, these swings in private sector investment were much larger than any corresponding swings in private sector savings. When private investment expands much more rapidly than private savings in Canada, the difference can be matched in two different ways:

a. the government can attempt to fill the savings gap by deliberately creating a corresponding government sector surplus; or,

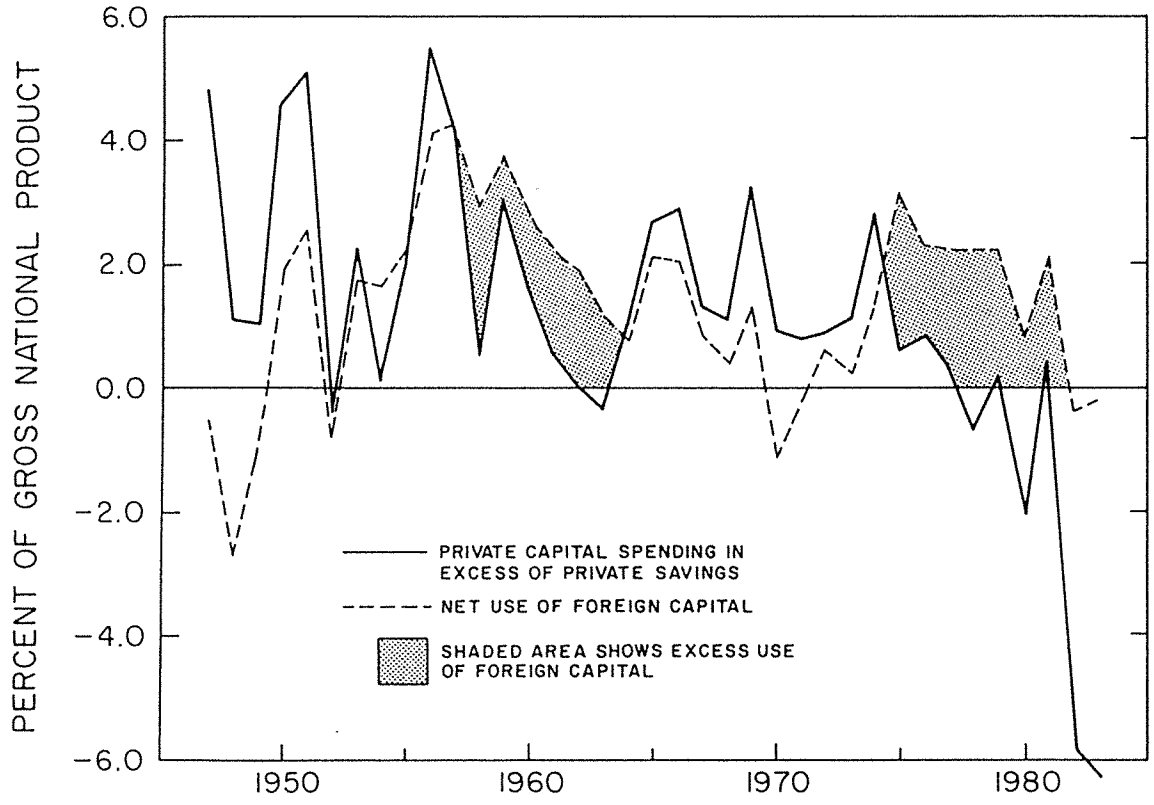
b. the private sector can obtain the funds needed to finance its

excess capital spending by borrowing in foreign capital markets. These funds can then be used to finance an excess of imports over exports.

There is little evidence that Canadian governments have deliberately set out to create the government sector surplus needed to fill the gap between private sector investment and private savings, although fiscal policy may have allowed or facilitated some move towards a stronger surplus position in periods of strong capital spending. On the other hand there is evidence of a strong shift towards the use of foreign capital during periods when Canadian capital spending has been exceptionally strong. This is evident from the data shown in Figure 2.

Figure 2

MANAGING CANADA'S USE OF FOREIGN CAPITAL, 1947 TO 1983



The pattern revealed in Figure 2 is one of a comparatively large use of foreign capital in periods when capital spending in Canada substantially outran the supply of Canadian savings. However, this chart also reveals two periods when the net use of foreign capital exceeded the requirements for additional funds by the private sector by a large margin. This is shown by the shaded areas on the chart. The two periods are from 1958 to 1963 and from 1975 to 1981. These are precisely the periods referred to above when the government sector ran deficits even though the private sector was running a surplus or was virtually in balance. I have labelled the shaded areas as excess use of foreign capital. In effect, foreign borrowing was being used in these periods to finance the government deficit. A better economic management would have been to both avoid this excess foreign borrowing and at the same time achieve a much lower deficit or a virtually balanced budget.

Given the fact that both of these periods occurred when Canada had a floating exchange rate, it can be argued that this unfortunate result reflected an incorrect mix of monetary fiscal policy. An easier monetary policy combined with a tighter fiscal policy could have exercised the same degree of restraint or stimulation to the economy while at the same time producing a lower value of the Canadian dollar, a smaller current account deficit and a smaller government deficit. The first of these periods occurred during the Bank of Canada Governorship of James Coyne. The policy pursued was severely criticized by economists. The second period, from 1975 to 1981, was one when Governor Bouey was in charge. Yet many economists supported his restrictive monetary policy, largely it appears because of their one-to-one association of monetary policy with inflation and their neglect of the whole question of a proper monetary and fiscal mix and an appropriate exchange rate.

What conclusions can we draw from this analysis with respect to the government deficit? Conditions which are favourable to achieving a balanced government sector budget are those where

a. the private sector is at least in balance or is running a deficit in the sense that its investment spending exceeds its savings; and

b. our exchange rate is being managed so as to avoid an excessive use of foreign capital. Thus, first priority should be given to restoring a more normal level of private capital spending in Canada. A policy of lower interest rates and a still lower value of the Canadian dollar would contribute to this goal.

In the light of the above analysis what can we say about the poor performance of the Canadian economy? In particular why is the Canadian unemployment rate and rate of economic growth so much less favourable than that of the United States? In my view the reasons are as follows:

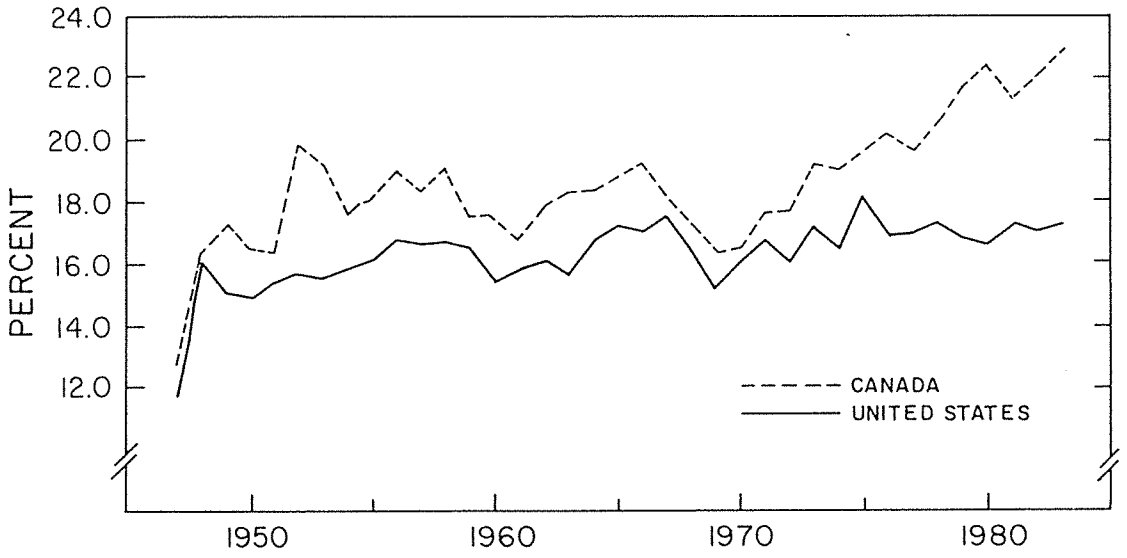
1. For a number of reasons the Canadian economy was affected much more severely by the 1981-82 recession. Thus, the decline in private investment in Canada amounted to some 6 percent of GNP compared to less than 3 percent in the U.S.

2. The Reagan tax cut and increase in defence spending has provided more stimulus to the U.S. economy than the Canadian economy has received.

3. As is clear from Figure 3, the United States gross savings rate is much lower than that in Canada and has not shown the strong upward trend which has occurred in Canada since 1970. If Canadians were saving (in gross terms) at the same rate as Americans, they would currently be spending an additional $25 billion, an amount which would give a strong stimulus to Canadian income and employment. A high Canadian savings rate is desirable provided there is an equally high level of private capital spending. In the latter's absence it merely serves to depress the economy and increase the government deficit.

Figure 3

GROSS PRIVATE SAVINGS AS PERCENT OF GROSS NATIONAL PRODUCT, CANADA AND THE UNITED STATES, 1947 TO 1983



An Econometric Model of the Alberta Agricultural Sector

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2.1 INTRODUCTION

An important characteristic of most modern economies is the ever-increasing demand for detailed information, much of which requires the use of sophisticated analytical techniques. In Canada, as elsewhere, this is most clearly demonstrated by the growth in both the number and average size of econometric macromodels. Even at the provincial level such models[1] are increasingly viewed as an indispensable tool in generating forecasts for planning purposes or in evaluating the impacts of a variety of policies or external events.

However, the development of the agricultural sector, especially in regional models, has not kept pace with that of the other model components. Two shortcomings in particular stand out - the absence of sufficient detail to accurately assess agricultural policies and the lack of careful integration with the overall models. For national econometric models such deficiencies[2] may not be critical, at least in terms of the effects on overall forecasting accuracy or non-agricultural policy evaluations. However, the same cannot be said for most regional or provincial models. For example, in spite of the secular decline in the direct contribution of agriculture to employment, income, and output in the western provinces, the indirect contributions through the highly developed forward and backward linkages and via regional balance of payments effects are substantial[3]. Further, even though the macroeconomic effects of specific agricultural policies may be largely hidden at the national level, they are often very significant at the provincial level. It is thus clear that greater attention to this sector is warranted, particularly in provincial econometric models.

The purpose of this paper is to outline a detailed agriculture model for Alberta and its integration with an econometric model of the Alberta economy. The overall model is MAE 2.0 (i.e., version 2 of Model of the Alberta Economy) which consists of roughly 1,200 equations and includes detailed sub-models for thirteen provincial sectors[4], one of which is agriculture. In terms of the focus of this paper, three of its more interesting features are as follows. First, the agriculture sub-model

follows a "bottom-up" approach. For example, the value of production for each commodity is modelled separately; these values are then summed to arrive at an aggregate sector value. Thus, the model can be shocked on a commodity-by-commodity basis to determine the impacts of specific policies or external events[5].

Second, the agriculture model is integrated with the provincial model using dynamic input-output linkages and a variety of conventional macro relationships. As a result, the effects of changes in the agricultural sector on economic activity in other sectors and the overall provincial economy can be traced and measured. This is particularly important given the tendency to focus on the regional macro effects of mega-projects while ignoring those that do or could result from agricultural policies. Finally, as both the agriculture sub-model and the overall model are highly disaggregated, structural changes in the economy are taken into account and detailed model output is generated. Hence, the effects of long-run sectoral shifts can be measured and both detailed policies and policies aimed at industrial diversification can be evaluated.

The outline of this paper is as follows. Section 1.2 summarizes the agriculture sub-model of MAE 2.0. Section 1.3 presents an overview of the complete model and outlines the approach used to integrate the agriculture model. In Section 1.4, two examples are presented to demonstrate how the agriculture sub-model and the integrated model can be used. A brief summary is provided in the last section.

2.2 THE AGRICULTURE SUB-MODEL

This component of MAE 2.0 consists of 82 equations covering 24 separate commodities. In order to explain the general nature of these many relationships and their linkage with the overall model it is useful to begin with the overview presented in Figure 1. As shown, annual commodity production is either exogenously given (e.g., wheat) or endogenously determined by, among other things, the relationship between commodity prices and input costs. In most cases the prices are exogenous to the model while costs are determined by variables generated in other parts of the provincial model (e.g., wage levels) or exogenous inputs (e.g., interest rates). These values for agricultural production are, in turn, added into primary sector Gross Domestic Product (GDP) and, after deducting Alberta deliveries (the values for which are generated in the main part of MAE 2.0), are used to estimate annual exports of agricultural products from the province. The latter, along with values for annual investment in the agricultural sector, feed into the final demand component of the main model where they are eventually translated into demands for commodities produced by other Alberta industries. The values for agricultural production also go into the determination of labour input and, after taking account of a variety of cost items, net farm income. Finally, the latter variable feeds into equations which calculate agriculture investment as well as into a variety of blocks in the main model where variables such as personal income are determined. Thus, it can be seen, for example, that changes in the prices or production of agricultural commodities set off a series of export, investment, employment and income effects which alter

Figure 1 - OVERVIEW OF THE AGRICULTURE SUB-MODEL IN MAE 2.0

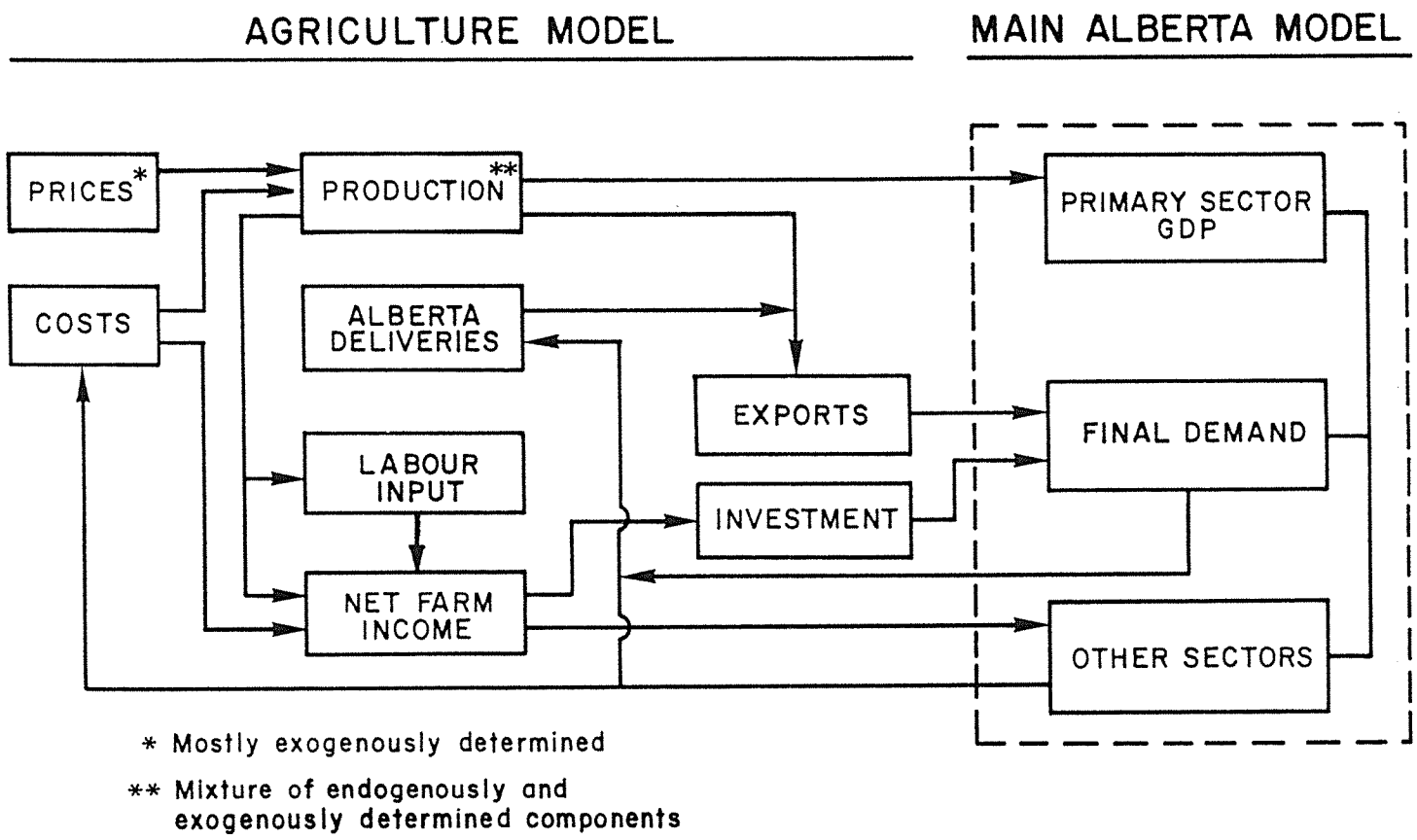
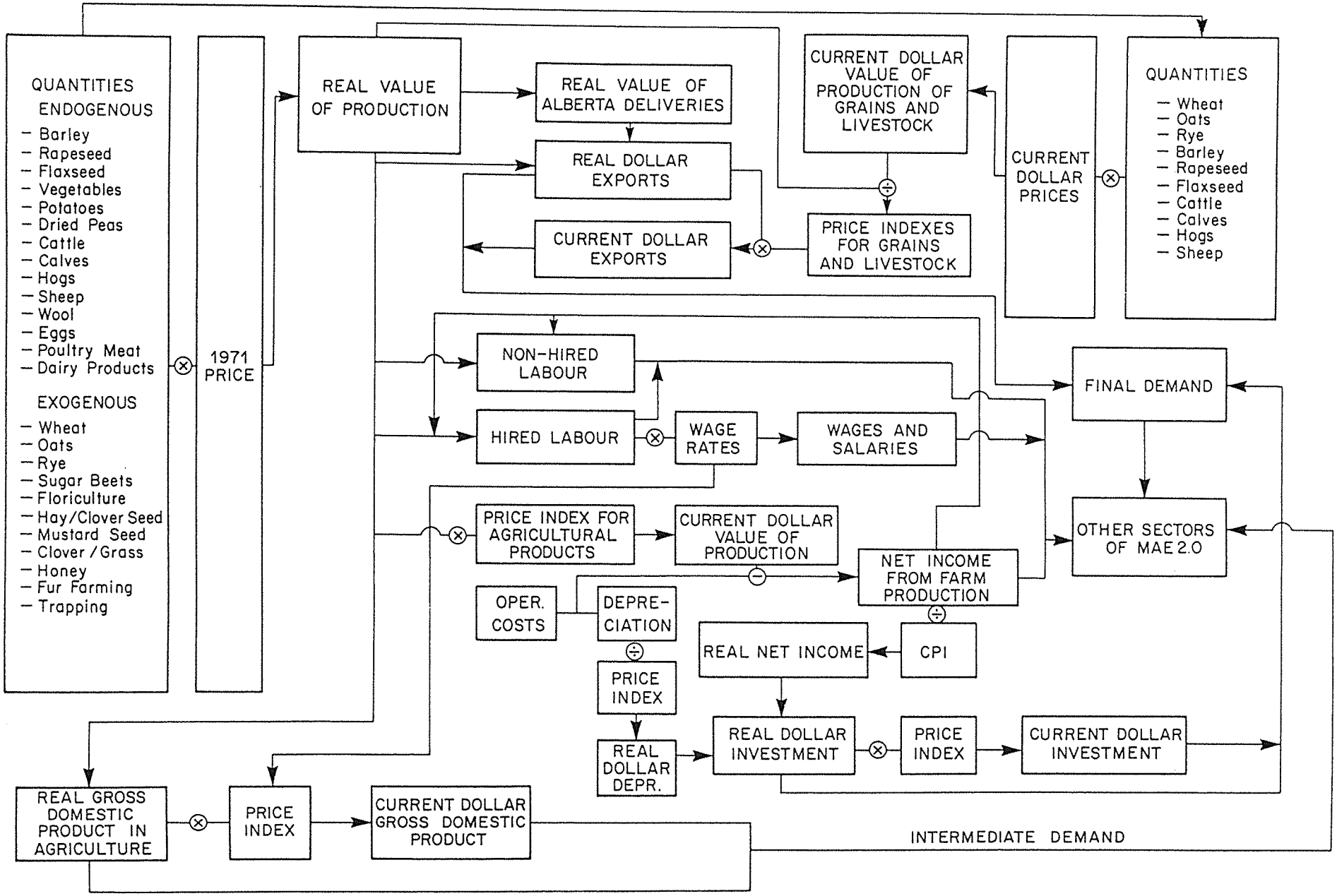


Figure 2: A SCHEMATIC DIAGRAM OF THE AGRICULTURE SUB-MODEL



the overall level of activity in the provincial economy and this in turn reacts back upon the agricultural sector.

As indicated in Figure 2, which summarizes the main interrelationships within the agriculture submodel, the commodities are separated into those for which quantities are determined exogenously (from a provincial perspective) and those for which quantities are endogenously determined.

The relatively large size of the former group is dictated by several considerations. First, as a general rule, the smaller the size of the economic unit (e.g., Alberta wheat producers) compared to the overall market area and the more integrated this economic subset is with the larger market, the greater the number of variables which will be considered exogenous. Second, in some cases quantities and/or prices are determined by bureaucratic fiat or government-to-government sales agreements and are hence not amenable to modelling. For example in the case of Alberta, the quantities and prices for wheat, rye and oats are established within the Canadian Wheat Board payments and quota system. Similarly, all non-feed wheat designated for Alberta consumption is Board controlled. In addition, since a large portion of Canadian (and Alberta) grain exports is the result of bilateral sales agreements between the Wheat Board and agencies of foreign governments, any attempts to make Alberta grain exports endogenous would require the construction of a model of the world grain market. Finally, in several cases the variables are made exogenous for purely practical reasons. For example, in Alberta honey, fur farming and trapping activities are such a small part of the agricultural sector that elaborate modelling of quantities and/or prices is difficult to justify. Further, in many instances they are simply impossible to econometrically estimate given the absence or poor quality of regional data for minor commodities.

In the case of the commodities whose quantities and/or prices are determined endogenously, the equations used incorporate specific regional factors and standard economic theory. While it is not practical here to outline all of these equations, some examples are provided to illustrate their general nature[6]. Since the bulk of Alberta's barley production is sold as livestock feed, Alberta livestock production and the prices of competing feeds are used to determine its level. Barley prices, on the other hand, are primarily a function of wheat prices.

As another example, the sales of cattle for slaughter and for live export deliveries in year t are mainly determined by three variables. These are:

a. the price of steers in years t-3 (i.e., the greater is the latter, the larger is the number of heifers and cows held back for breeding purposes in year t-3 and the greater the number of cattle available to the market in year t);
b. the price of barley in year t-1 (e.g., as barley prices rise, the feedlot demand for heifers declines and more heifers are sold rather than being held back for breeding); and
c. the price of calves in year t-1 (i.e., as this price increases, cattle sales in year t decline, ceteris paribus).

Other less important variables include changes in the dairy cow herd in year t-5 (since the average productive life of a dairy cow is five years) and lagged interest rates.

The equations for other types of livestock production are similar in that they also include price and cost variables along with well-known lags and product interrelationships. As shown by the results presented in a later section, this leads to a variety of production cycles of the type commonly observed in agriculture. Finally, it might be noted that, with the exception of beef cattle prices[7], all prices for the endogenous commodities (see Figure 2) are determined endogenously using standard price equations.

The agriculture sub-model also generates a number of values which feed directly into the main part of MAE 2.0. These include values for real and current dollar Gross Domestic Product (GDP) in Agriculture; real and current dollar (provincial) agricultural exports and real and current dollar gross and net agricultural investment; and agricultural employment, wages and salaries and net farm income.

As shown in Figure 2, real and current dollar production values are calculated, respectively, by multiplying the quantities of the individual commodities by their 1971 and current prices. For most major commodities individual equations determine the proportion of this total production which is used in Alberta so that out-of-province exports can be calculated as a residual[8]. As an example here, Alberta deliveries of cattle for slaughter are mainly related to consumer expenditure on food. The latter is, in turn, determined (in the consumption sector of the main model) by per capita disposable income, population and a relative price variable.

As previously noted, the value of total agricultural production is also used to estimate real and current dollar GDP (or value added) in agriculture. This, in turn, is used to estimate intermediate demands by the agricultural sector for gasoline and fuel oil, machinery and equipment and so on. Net income from farm production is estimated by deducting operating costs and depreciation from the summation of the values for the sales of individual agricultural commodities as determined in the sub-model. The values for farm operating costs and depreciation are estimated in equations with right-hand variables such as farm input price indexes, interest rates and the mid-year net capital stock for agriculture. Net farm income forms a major determinant of investment expenditures and, along with the real value of farm production, enters the equations which calculate hired and non-hired (or family and farm operator) labour. Finally, an endogenously determined value for farm wage rates is multiplied by the estimate of hired farm labour to arrive at wages and salaries in the agricultural sector.

This agriculture sub-model (and the complete model) has been validated using both in-sample simulations and ex-post forecasts. As shown in Table 1, the measures of error for three of the main aggregates produced by the agriculture sub-model fall within reasonable limits. However, it might be noted that greater accuracy may be achieved for such variables by less disaggregated models. Whereas there is a tendency for errors to cancel out in the more aggregated models, there is both a greater potential for specification errors and a tendency for errors to be carried or even multiplied as they pass from equation to equation as the level of disaggregation increases. Unfortunately, any such losses in accuracy associated with disaggregation must be weighed against the gains in usefulness in terms of analyses involving detailed inputs or intra-sectoral structural changes.

TABLE 1

Root Mean Square Error (RMSE) and Mean Percentage Error (M%E) for In-Sample Simulation and Ex-Post Forecast for Selected Variables Generated by the Agriculture Sub-Model.
(Note: Estimation Period is 1961 - 1979)

	In-Sample Simulation (1970-79)		Ex-Post Forecast (1980-81)	
Variable	RMSE	M%E	RMSE	M%E
Real Agriculture GDP (millions of 1971 dollars)	22.16	0.34	*	*
Real Gross Agricultural Investment (millions of 1971 dollars)	38.87	5.75	36.00	1.11
Net Farm Income (millions of current dollars)	51.20	3.25	29.53	3.30

* Cannot be calculated due to unavailability of data for actual values.

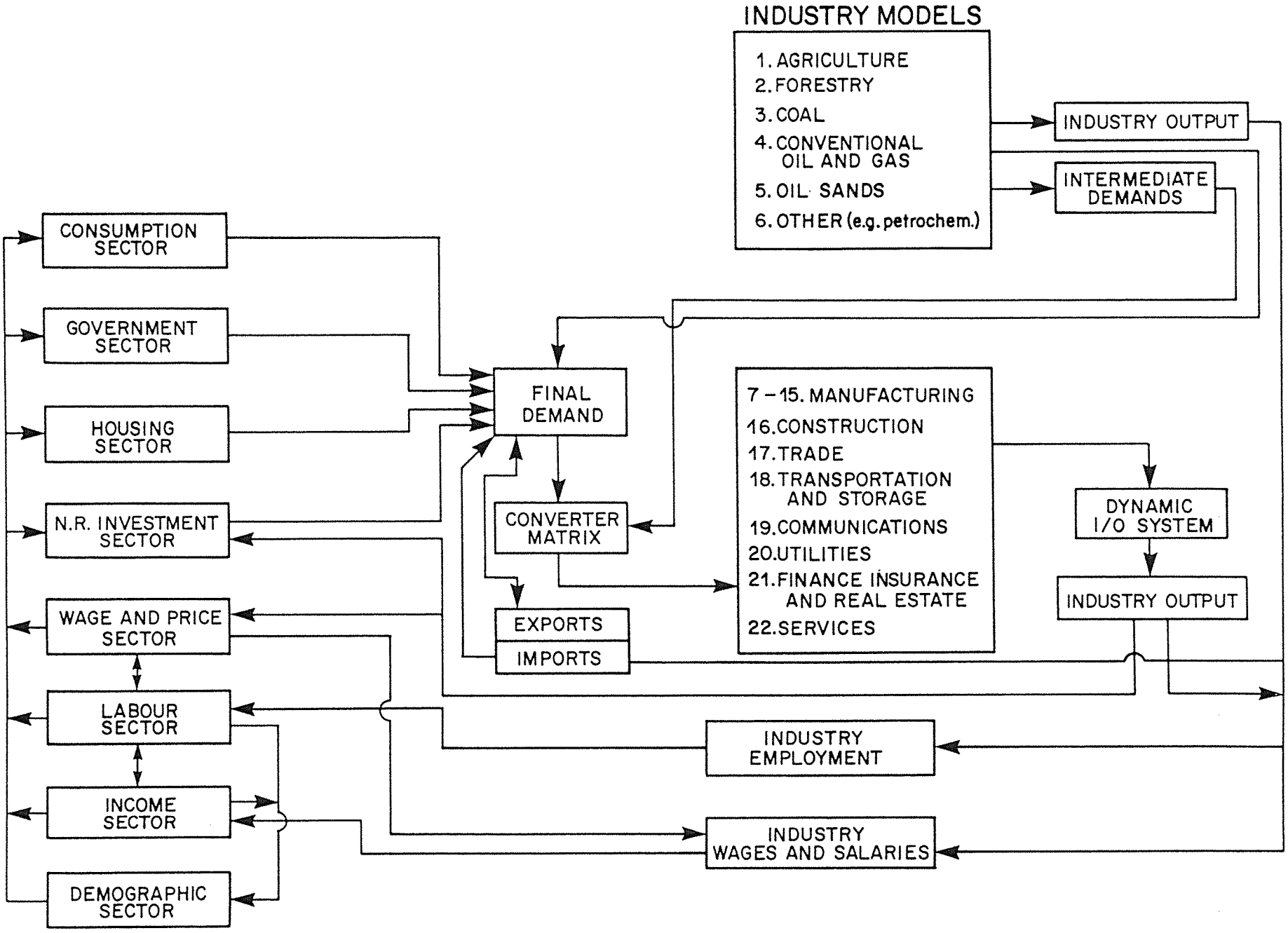
2.3 THE STRUCTURE OF THE COMPLETE MODEL

MAE 2.0, which is an expanded version of an earlier model of the Alberta economy (see Mansell and Wright, 1981), was primarily designed to prepare medium-and long-term economic and demographic forecasts for the province, to assess the impacts of capital projects and to evaluate various diversification strategies and government policies. Figure 3 illustrates the overall structure of this model and the basic position and role of the agriculture sub-model within it.

As indicated, the industrial sectors are divided into two groups - basic and non-basic. The first includes those industries which are primarily export-oriented (that is, mainly produce for ex-provincial markets). For the most part, these are driven by variables whose values are largely determined outside the province's boundaries and/or exhibit important supply-side or regulatory constraints. For Alberta, the agriculture, forestry, mining (coal, conventional oil and gas plus synthetic oil) and petrochemical sectors are included in this first group. The second group contains those industries which are non-basic in the sense that they are primarily oriented towards providing goods and services for use within the province and hence are mainly driven by demands arising from local consumers, governments or businesses. As indicated, sectors such as manufacturing (excluding the petrochemical sector), construction, trade, utilities, finance and services comprise this group[9]. Finally, it should

FIGURE 3

An Overview of the Main Components of MAE 2.0



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be pointed out that while the primary direction of causality is from the basic to the non-basic (and other) sectors, there are also linkages in the opposite direction. For example wage, price, income and population changes do have effects on basic sector variables such as wage rates, investment and local (provincial) demand.

Within this framework the agriculture sub-model performs three main functions. First, given values for various exogenous economic and policy variables, it generates estimates of value added (or GDP), employment, and wages and salaries for the agricultural sector which feed directly into the determination of these variables for the province as a whole. Second, it generates values for agricultural investment and exports which enter a final demand vector containing estimates for nine consumption items, net sales to government, seven investment categories, five topics of exports and five types of imports. Using a converter matrix[10], these final demands are first converted into demand for each of 37 commodities and then (using a market share matrix[11]) into industry-specific demand. Third, it provides estimates of intermediate demands for non-basic sector output on a commodity-by-commodity basis.

As indicated in Figure 3, the vector of final plus intermediate demands (arising from the basic industries) is multiplied by a partitioned inverse matrix to arrive at first approximations for output for each of the non-basic industries[12]. These are then adjusted to take account of temporal changes in the technical coefficients using a method similar to that employed in the Candide Model (Preston et al.)[13]. The resulting estimates then enter equations where variables such as investment, employment, wage rates and wages and salaries for each of the non-basic industries are determined. Following a number of aggregation and reconciliation procedures, the values for variables such as personal income, the unemployment rate and population (determined using a cohort-survival procedure with endogenously determined migration) go back into the generation of estimates of final demand (e.g., consumption, residential investment and so on) for the next period.

For the purpose of illustrating the main linkages between the agriculture sub-model and the rest of MAE 2.0 consider the case of a shock in the form of, say, increased beef production arising from higher beef prices. First, in addition to affecting other components of the agricultural sector (for example the production of feed grains), this would, through the additional intermediate demands in other industries, produce an inter-industry multiplier effect. Second, this impact along with the increase in exports would set in motion a Keynesian-type multiplier effect based on income expansion and the consequent increases in consumption, investment and possibly government expenditure. The size of the total effect would, however, be conditioned by a variety of wage and price effects, the size of which would partly depend on the amount of excess capacity in local labour and product markets. Third, to the extent that the first two impacts resulted in an increase in employment and income opportunities in Alberta relative to those in other regions, there would be a further multiplier effect due to induced population growth arising from additional net in-migration.

2.4 USE OF THE MODEL

The entire model is "computerized" using an expanded version of TSP 3.4b (Time Series Processor, version 3.4b) interfaced with TSIMS, a data storage and management system developed for MAE 2.0. This system was chosen primarily because it allows considerable flexibility in the use of the model. For example, it enables the user to change and reestimate equations to suit individual needs without having to manually reorder the equations into recursive and simultaneous blocks prior to solving or alter the solution algorithms. In other words, changes to the structure of the model can be accomplished easily and without any reprogramming.

As noted earlier, the model can be put to a variety of uses. For example, in an agricultural context, projections for output (by commodity), income, employment, etc., for the agricultural sector can be generated by inserting forecasted values for the exogenous variables (such as wheat production and prices) and then simply running the model forward to the desired date. Further, by using forecast values produced by prior runs with the complete model as inputs to the agriculture sub-model, the latter can be run independently of the rest of the model. In either case it is possible to generate detailed and consistent forecasts for the agricultural sector for a variety of scenarios and these projections can serve as a useful input to the planning and policy process. Alternatively, the effects of a variety of policies or external events on both the agricultural sector and the overall provincial economy can be estimated using a two step procedure. That is, a "Reference" solution is first obtained by using a set of base case assumptions for the exogenous variables. Then, by adjusting the values of these exogenous variables to reflect the direct effects of a given policy (or set of external events), a "shock" solution is obtained and the net impacts can be estimated by the differences between the reference and shock solutions for each of the endogenous variables.

To illustrate the use of the model, two simple applications are summarized here. The first involves the development of a series of projections for the Alberta agricultural sector while the second examines the effects of changes in the agricultural sector on the overall provincial economy.

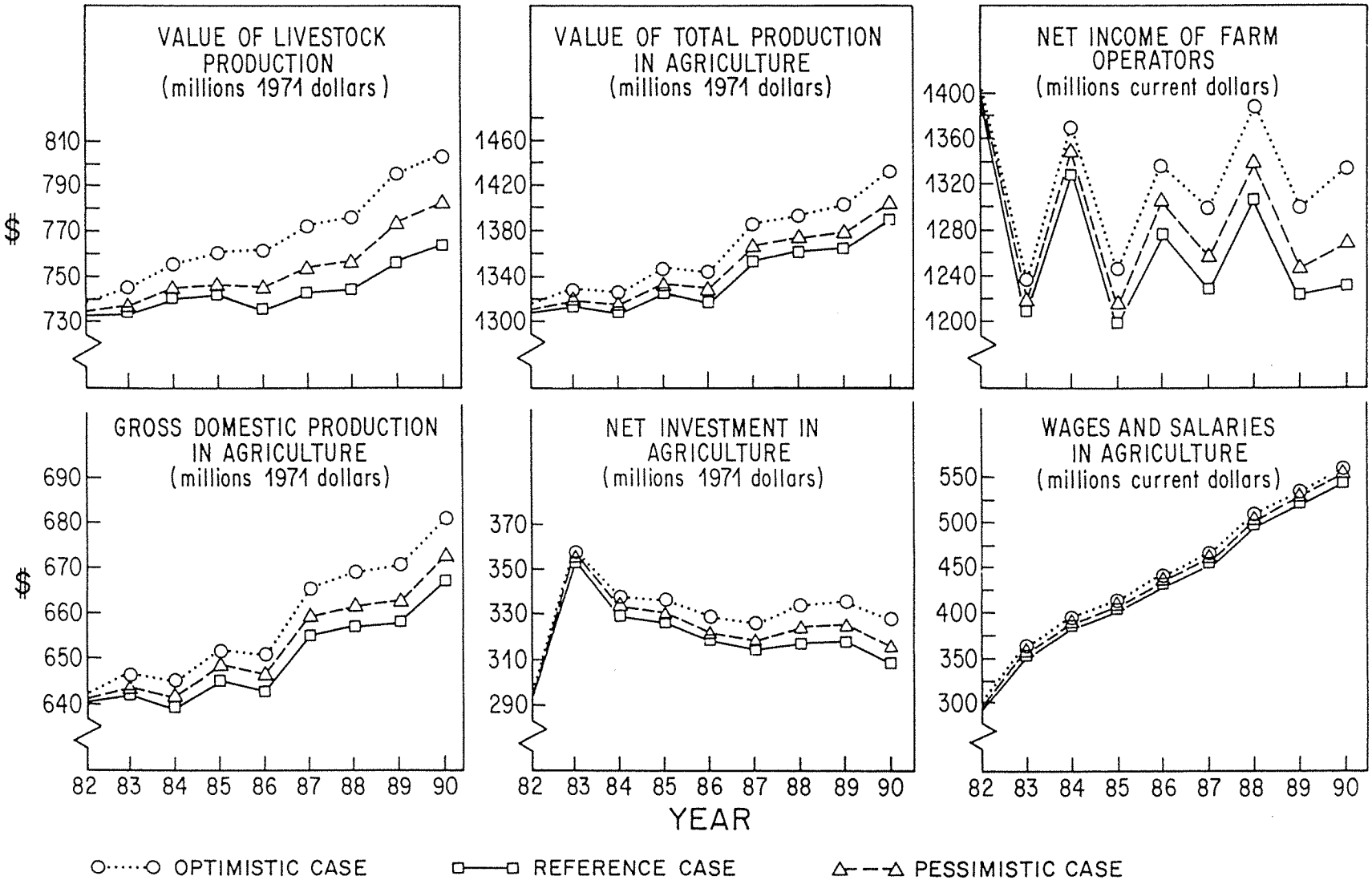
2.4.1 Projections

Using values for the exogenous variables based on historical trends, a Reference Case was generated by running the agriculture submodel for the period 1981 to 1990. In addition, for comparative purposes, alternate scenarios were developed using the "optimistic" and "pessimistic" projections for 1990 provided in Western Canadian Agriculture to 1990 (Canada West Foundation, 1981). These Optimistic Case and Pessimistic Case projections for the interim years (1981-1989) were developed by applying the percentage deviations around the trend line calculated for the Reference Case results to the trend line established by historical data and the 1990 projections contained in the Canada West Foundation study.

The results for selected variables are portrayed in Figure 4. While it is not our objective here to discuss these in detail, three general points are worth noting. First, the results generated by the model (i.e., the Reference Case) exhibit considerable cyclicality not

Figure 4

ALTERNATIVE PROJECTIONS FOR THE AGRICULTURE SECTOR



unlike that observed historically. While this can hardly be viewed as a test of the accuracy of the projections it is at least encouraging. Second, the Reference Case projections generated by the model are, for most variables, significantly lower than those based on the values in Western Canadian Agriculture, even for the pessimistic scenario. This is somewhat surprising in that the trend values for the exogenous variables used for the Reference Case are, for the most part, very close to the assumptions embodied in the latter study[14]. Third, there is evidence that some of the projections presented in Western Canadian Agriculture are not internally consistent. For example, the model results indicate significant trade-offs between, say, wheat production on the one hand and cattle and feed grain production on the other, but similar trade-offs do not show up in the projections contained in the aforementioned study. The important point is that a model such as that employed here can be particularly useful in maintaining consistency both between the assumed values for the exogneous inputs and the projections and among the projections for the various types of agricultural production.

2.4.2 Impacts

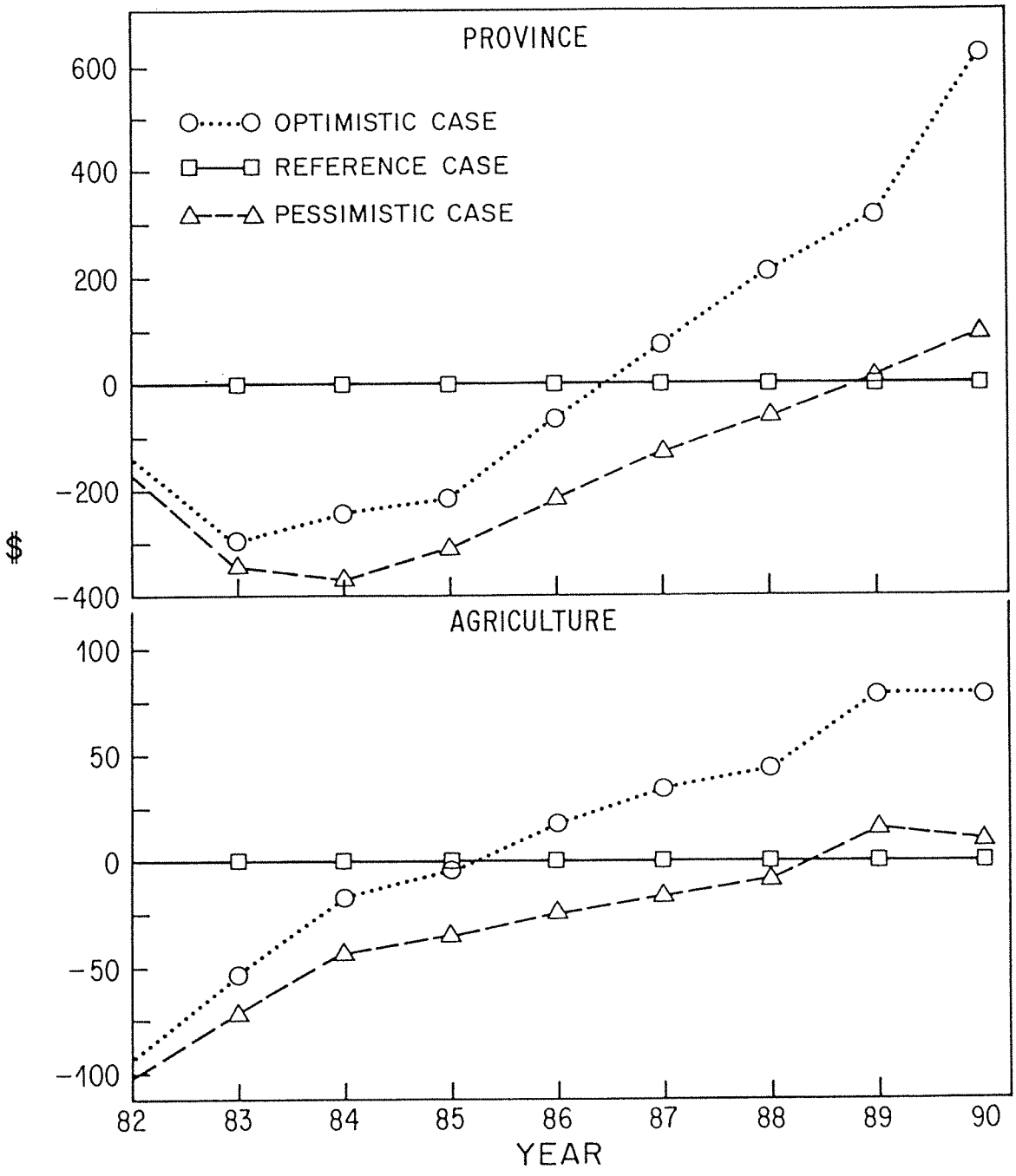
To illustrate the use of the model in estimating the effects of changes in the agricultural sector on the overall provincial economy, the complete model was run for three cases which differ only in terms of the level of agricultural activity. The Reference Case was generated in the manner previously outlined while the other two incorporated the "optimistic" and "pessimistic" growth projections for the production of cattle, hogs, wheat, and a variety of other grains[15] embodied in Western Canadian Agriculture.

Although MAE 2.0 produces values for over 200 commonly used aggregate and sectoral variables for the Alberta economy, the results presented here (see Figure 5) are limited to measures of real output (RGDP) for the Alberta agricultural sector and the total provincial economy. These results indicate two important features of the linkages between the agriculture sector and the provincial economy. First, the effects of a one dollar increase in agricultural output on total RGDP are significantly and negatively related to the overall level of economic activity. That is, because of factor supply constraints and the operation of a variety of price and cost effects embodied in the model, "crowding-out" effects are exhibited. This is unlike most regional models where assumptions of perfectly elastic supply curves and prices/cost movements which are independent of the level of economic activity preclude the possibility of such effects even though they are a reality.

Figure 5

LINKAGE EFFECTS

REAL GROSS DOMESTIC PRODUCT (millions 1971 dollars)
OPTIMISTIC AND PESSIMISTIC CASES RELATIVE
TO THE REFERENCE CASE



Second, the results indicate a significant cumulative multiplier process. For example, while the impact or short-run multipliers (showing the immediate or short-run increase in total provincial RGDP per dollar increase in agriculture sector RGDP) are generally in the range of 1.5 to 1.9, the long-run multipliers are significantly greater. Defining ΔRGDPA as the sum of annual differences (between, say, the Optimistic Case and the Reference Case) in agriculture sector value-added over the period 1982 to 1990 and ΔRGDP as the sum of annual differences in provincial RGDP over the same period, the long-run (cumulative) multiplier can be expressed as ΔRGDP/ ΔRGDPA. The value for this multiplier based on the differences between the Pessimistic Case and Reference Case is 2.97. And an even larger multiplier is evident from comparisons between the Optimistic and Reference Cases. In general, these relatively large long-run multiplier effects arise because the initiating factor (in this case, the expansion of the agricultural sector) alters the long-run growth rate in the economy and not just the level of economic activity as is the case in static-type models. However, the most important point here is that changes in the agricultural sector have a considerably larger effect on the Alberta economy than is commonly believed. This would suggest that, even in a provincial economy dominated by the energy industry and mega-projects, agriculture should not be overlooked as an important source of growth and economic diversification. In this context, the model could be useful in isolating those types of policies most conducive to maximizing this important role of the agricultural sector.

2.5 SUMMARY

Though the agricultural sector constitutes a vital component of most provincial economies and is the focus of numerous planning and policy initiatives, it is typically under-represented in regional modelling efforts. This paper summarized one approach in developing a fully integrated, commodity-based econometric model of a provincial agricultural sector. In addition to its use in preparing detailed forecasts, it also allows for the effects of market or policy changes for individual commodities to be examined in the context of the agricultural sector alone as well as the provincial economy as a whole. While considerable improvements are no doubt possible the tests of the model using historical data and ex-post forecasts would suggest that the general approach used has merit. The opportunities for additional research in this area appear to be extensive.

NOTES

[1] Provincial econometric models currently exist for Prince Edward Island, Nova Scotia, Quebec, Ontario, Saskatchewan and Alberta. Similar models no doubt exist for many of the remaining provinces but these have not been widely publicized. In addition, some national organizations (e.g., the Conference Board of Canada) maintain and operate provincial econometric models. A summary of some of the earlier provincial models is provided in Government of Ontario (1971).

[2] It might be noted that these shortcomings are generally less acute at the national level. For example, the 500 equation Food and Agricultural Regional Model (FARM) is highly disaggregated although it is not integrated with a macro model (see Agriculture Canada (1980)). While less detailed, the 31 equation model reported by Chan (1981) can be linked to the Toronto Annual Canadian Model (TRACE). Other models such as RDXF (see Kenwood, de Bever et al. (1981) and Candide (see Preston et al. (1979)) have integrated but not highly disaggregated agricultural sectors.

[3] For example, the Agriculture and Food and Beverage industries rank fourth and first, respectively, as having the strongest backward linkages in the Alberta economy. In terms of forward linkages the respective rankings are third and first (see Mansell (1981)). In addition, the Alberta agriculture sector accounted for 13 percent of total provincial exports in 1980 (data provided by Alberta Bureau of Statistics). For a summary of regional balance of payments effects see Thirlwall (1980).

[4] These sectors are: labour force, population, housing, consumption, personal income, government revenue and expenditure, coal mining, conventional oil and gas, oil sands, petrochemicals, forestry, non-basic or local industrial sectors, and the agricultural sector.

[5] For example, most agricultural programs are administered on a commodity-by-commodity basis. Similarly, the effects of factors such as changes in transportation rates or in, say, wheat or beef prices which are exogenous to the province can only be determined using a commodity-by-commodity evaluation.

[6] For a detailed description of these equations see Kwaczek and Mansell (1981).

[7] Since the North American beef cattle market is highly integrated, Alberta prices are determined exogenously on an Omaha plus freight basis.

[8] The determination of the value of grain exports is a notable exception in this regard. Because of a combination of small provincial relative to total sales, difficulties in modelling inventory changes and inconsistent historical data, this variable is determined by an estimated equation rather than as a residual.

[9] A combination of three criteria were used to establish the

basic sectors. The first was whether or not a particular industry or sector had a location quotient significantly greater than one. The second involved the size of the contribution of each sector to total exports from Alberta. (Detailed data on provincial exports were provided by the Alberta Bureau of Statistics.) The third concerned the degree to which exogenous factors (such as direct regulation or world commodity prices) and/or supply-side factors played a role in determining activity in the sector. Given that these latter factors are not easily incorporated in an input-output framework (such as that used for the non-basic sectors), their existence signalled the need for separate industry (or sector) models.

[10] This matrix (denoted $\bar{E}$ in the partitioned input-output system) shows the composition of the 27 final demand components in terms of 37 separate commodities based on the 1974 Input-Output Accounts for Alberta.

[11] This matrix (denoted $\bar{D}$ in the partitioned input-output system) allocates the production of 37 separate commodities among 22 different industries.

[12] Specifically, $\bar{g}^*$, the vector of real value added for the non-basic industries, is determined by

$$\bar{g}^* = \bar{B}^d \cdot [I - \bar{D}'\bar{B}]^{-1} \cdot \bar{D}'[\bar{E} \cdot f + \hat{B} \cdot \hat{g}]$$

where $\bar{B}^d$ is a diagonal matrix formed from the value added components of the partitioned industry coefficients matrix, I is an identity matrix, $\bar{D}$ is a partitioned market share matrix, $\bar{B}$ is a partitioned industry coefficients matrix, $\bar{E}$ is a partitioned final demand coefficients matrix, f is a vector of final demands, $\hat{B}$ is a partitioned industry coefficients matrix and $\hat{g}$ is a vector of gross outputs for the basic industries. For details see Mansell and Kwaczek (1982).

[13] The technical coefficients measure, for each industry, the quantities of the various inputs required per unit of output. The adjustment method employed makes allowances for changes in these coefficients over time as a result of technical change and factor substitution.

[14] For further discussion of the projections in Western Canadian Agriculture, see Anderson (1981), Coffin (1981) and Lerohl (1981).

[15] These include oats, barley, rye, rapeseed and flaxseed.

BIBLIOGRAPHY

Agriculture Canada, Farm, Food and Agriculture Regional Model, Commodity Markets Analysis Branch, Policy, Planning and Economics Branch, 1980.

Anderson, W.J., "Western Canadian Agriculture to 1990: A Review," Canadian Journal of Agriculture Economics 29, 1981, pp. 109-116.

Chan, M.W.L., "An Econometric Model of the Canadian Agricultural Economy," Canadian Journal of Agricultural Economics 29, 1981, pp. 265-282.

Coffin, H.G., "Western Canadian Agriculture to 1990: Blueprint or Mirage?" Canadian Journal of Agricultural Economics 29, 1981, pp. 117-130.

Czamanski, S., An Econometric Model of Nova Scotia, Institute of Public Affairs, Dalhousie University, Halifax, 1968.

Government of Ontario, Ontario Economic Review, Special Supplement, Department of Treasury and Economics, Toronto, March, 1971, pp. 6-17.

Kenwood, L., de Bever, L., et al., The Equations of RDXF, Bank of Canada Technical Report 25, Ottawa, 1981.

Kwaczek, A.S. and Mansell, R.L., "The Agriculture and Forestry Sectors - Model of the Alberta Economy (MAE)," Project paper No. 9, mimeo, 1981.

Lerohl, M.L., "The Canada West Report - Recipe for Western Agriculture?" Canadian Journal of Agricultural Economics 29, 1981, pp. 131-140.

Mansell, R.L., "Texas and Alberta: A Comparison of Regional Economies," Texas Business Review, November-December, 1981, pp. 241-247.

Mansell, R.L. and Kwaczek, A.S., "Model of the Alberta Economy - The Interindustry Sector," Project paper No. 10, mimeo, 1982.

Mansell, R.L. and Wright, R.W., A Model of the Alberta Economy, Discussion paper No. 62, Department of Economics, University of Calgary, 1981.

Preston, R.S., et al., Candide 2.0, Model Description, Economic Council of Canada, Ottawa, 1979.

Schwartz, F., An Econometric Model of P.E.I., Research Monograph, Department of Finance, Charlottetown, P.E.I., 1970.

Thirlwall, A.P., "Regional Problems are Balance of Payments Problems," Regional Studies 14, 1980, pp. 419-425.

FORECASTS

General Economic Outlook for Alberta

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In company with most western industrial economies, Canada has recently been recovering from a serious recession. In part, this recession was the inevitable consequence of the use of tight monetary policy and high real or inflation-adjusted interest rates as the main tool for reducing the core inflation rate in the economy. Although the inflation rate has moderated sharply, the recovery has been faster in the United States than in Canada, and has occurred from a recessionary trough which was not quite as deep. Moreover, it should not surprise you to know that the weaker Canadian recovery has been rather unbalanced, with precious little of it permeating the western regional economy and the agricultural sector more specifically. I shall explore a little later some of the reasons why these differences have occurred.

The recent recession bottomed out in November 1982, both in the United States and in several parts of Canada. The ensuing two-year-old recovery has been engineered by the less restrictive monetary policies which were pursued between September 1982 and September 1983, and by the initially stimulative effects of expanded government deficits. The higher money supply growth rates, as measured by the total of currency and demand deposits at commercial banks of M1, were necessitated by the need to generate an economic recovery, and in the case of the United States by the need to restore reasonably stable monetary conditions in the debt-burdened international money markets.

More recently, since the fall of 1983, money supply growth rates have been reduced significantly. This may well be a natural response to the authorities' fear of being seen to monetize the substantial fiscal deficits which now over-shadow the financial markets. Nevertheless, until these central government deficits are reduced in scale, real interest rates will remain substantially higher than their historical norms. Indeed, the largest problem over-shadowing our prospects for a sustained economic recovery is the high-level interest rates emanating from the substantial fiscal deficits that exist on both sides of the border and in several other OECD countries as well.

The facts that United States inflationary pressures were unwound by tight monetary policy, and that stimulative fiscal policy, including tax reductions and larger defence expenditures, has been used in the

United States to generate a recovery from the resulting recession, have together led to an unbalanced mix of monetary and fiscal policies, and therefore to high real interest rates. In consequence, over the past three years, large-scale capital inflows into the United States economy have caused the U.S. dollar to be very strong in relationship to European and other currencies. However, this strength is likely to be unsustainable in the face of a growing deficit on the trade and debt-service accounts of the U.S. balance of international payments.

Although the Canadian dollar has often looked weak in relationship to the high-flying U.S. dollar, in actual fact it has been strong in relationship to European and other third country currencies. One consequence of this is that the U.S. recovery from the 1981-82 recession has pulled along with it those sectors of the Canadian economy, such as automobile manufacturing, which are sheltered by North American protective barriers from third country competition, but has left mired in recession those sectors which are exposed to third country competition, in both external and U.S. markets. This is especially true of our resource-based industries, including agriculture, and is one of the main reasons why our overall recovery has been half-baked in comparison to that of the United States. Put differently, the trade-weighted appreciation of the Canadian dollar that has materialized as we have tried to maintain a U.S. dollar exchange rate in the upper half of the 70-to 80-cent range has helped to sustain a continuation of the recession in the resource-producing sectors of the economy when recovery has taken hold elsewhere.

Neither the federal government nor the Bank of Canada can do much about the high real interest rates resulting from the current monetary-fiscal policy mix being pursued in the United States, whose situation with respect to economic recovery is much further advanced than our own. Nevertheless, the growing size of the U.S. current account deficit must soon lead to some corrective readjustment in currency values in which the U.S. dollar must eventually slide relative to the Deutsche-mark, the yen and other related currencies. To have taken a little more of our associated slide over the past year by running a slightly more expansionary monetary policy might well have been beneficial as long as the exchange rate was later going to be stabilized. In part, such a process has already occurred, but in my view it has been excessively resisted. In sum, over the past twelve months Canadian monetary policy has been somewhat too restrictive, given the fragile state of the recovery process in many sectors of the Canadian economy, especially those involved in resource extractive processes in British Columbia, Alberta, Newfoundland and eastern Quebec. Of course, this viewpoint might not be shared in Ontario's manufacturing heartland, where the recovery has been steadily underway since November 1982.

Given the capital-intensive nature of our resource-extractive industries, Canada is more dependent upon buoyant investment expenditures than the United States for continued economic prosperity. It follows that one of the main reasons why the Canadian recession has been deeper and more protracted than the United States recession is the larger hammering that total longer-term investment expenditure took in Canada in response to high real interest rates, to lower capacity-utilization in its resource-producing industries resulting from the high external value of both the U.S. and Canadian

dollars in terms of third country currencies, and to the market, price and policy developments which shocked expectations in our energy-producing industry. One of the main additional reasons why the U.S. recovery is more advanced than the Canadian recovery is the fact that changes and differences in capital and profits taxation arrangements on both sides of the border have served to lower what I call the "user cost" of capital investment expenditures in the United States in relation to that in Canada. Another reason is the faster wage and price adjustment that occurred in the United States in response to the policy-induced recession, a factor which was enhanced by the delayed response of energy prices in Canada to the 1979-80 world oil price developments.

As yet, we have been given no really clear-cut indication by either the U.S. or Canadian governments as to how their substantial fiscal deficits will be reduced sufficiently as the recovery proceeds into its third year. This is, of course, not good news for real interest rates, crowding-out effects on private sector activities, or for currency values and inflation rates down the track. Nevertheless, I am optimistic enough to bet that at least a down-payment on the necessary deficit reduction will occur on both sides of the border in the first half of 1985. In consequence, nominal interest rates may well moderate into the late spring of 1985 by perhaps another full percentage point, while if anything inflationary pressures should be expected to pick up somewhat, as increased demand pressure in the U.S. labour market increases union bargaining power, and as a lower value of the U.S. dollar raises North American import costs. On both counts, real interest rates may well decline.

The danger is that this decline will not be sustained if North American money markets fail to be convinced that fiscal deficit reductions will continue after an initial down-payment. Moreover, any significant reversal of the downtrend in real interest rates before the end of 1985 could begin moving us back into recession during the course of 1986. On this scenario, unemployment rates will remain high, especially in Canada, and the growth in consumer demand will be curtailed. None of this brings any good news for the agricultural and livestock industries in the North American market place. Nor can there be much abatement in the strength of offshore competition in the world market place for food-stuffs, especially including meat products, without the growth in consumer demand that only a sustained international economic recovery can bring, even if some short-term relief occurs through a fall in North American currency values.

The required fiscal adjustment on either side of the border should be to reduce the structural or non-cyclical component of the fiscal deficit downwards towards zero over the life of the current Canadian and prospective U.S. governments. Although the overall Canadian fiscal deficit is larger in relationship to gross national product than its U.S. counterpart, this reflects in large part the weaker Canadian recovery. Indeed, the structural component of the U.S. fiscal deficit is almost as large as the corresponding component in Canada, when taken as a proportion of gross national product. Roughly half, or $18 billion, of Canada's $32 billion fiscal deficit is structural in nature, while approximately two-thirds, or $130 billion, of the $200 billion or so U.S. fiscal deficit is structural. In consequence, we need to make

bite-sized reductions in the Canadian deficit to remove, cumulatively, four billion dollars from the structural deficit each year for the next four years, whereas our neighbours to the south need to work for a cumulative reduction at the rate of some $35 billion per annum over the life of their next government. Given the nature and causes of our two different fiscal deficits, it is clear that, in principle, the U.S. deficit situation should be marginally easier to handle. Moreover, in many ways it is at least as crucial for Canada that the U.S. deficit be reduced as the Canadian one. What we need is a reduction in real interest rates in the world economy. Reducing the U.S. fiscal deficit is much more important to this end than reducing the Canadian one. Needless to say, this does not carry any implication that we can afford to be either casual or complacent about our own situation. It is simply a matter of relative magnitudes.

Unless faster growth in real private consumption expenditures and lower levels of real interest rates can be generated by a more appropriate monetary-fiscal policy mix, the agricultural community in Canada will continue to suffer a relative cost-price squeeze, farm bankruptcies will continue to be numerous and, even for the survivors, real net farm incomes will remain unduly low in relationship to past history and in comparison with some, but certainly not all, productive sectors in the economy. Local markets in Alberta will in any case continue to be sluggish due to the aftermath of the collapse of the 1979-80 boom, for there is little doubt that in this period of structural adjustment the Alberta economy will continue to perform less well in terms of growth rate measures and unemployment statistics than other parts of the national economy.

Finally, one must add a word about the Crow Rate reform. As we are all becoming aware, the continuing distortions in relative freight rates unavoidably lead to the deprotection of the livelihoods of all western Canadian red meat and especially beef producers, including cow-calf and feed-lot operations, meat packing and processing firms alike. To correct this problem, the whole so-called Crow benefit should be paid entirely to the farmers, and not to the railways, though the railways should accordingly set higher freight rates for hauling grain so as to reflect the real economic costs of haulage. The resulting reduction in feed grain prices in the western prairies should to some extent reduce the cost-price squeeze on our western livestock industry. Nevertheless, a sustained reduction in real interest rates is even more fundamental to your collective livelihoods.

TABLE 1

Forecast for Alberta in 1985

	Percent
Real GDP	1.7
Employment Growth	0.5
Unemployment Rate	11.0
Consumer Price Index	4.0

Saskatchewan Outlook, 1985

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As usual, agriculture dominates the outlook for the Saskatchewan economy. The impact of the 1984 drought on the financial position of agriculture and agriculture-related industries will continue to restrict growth in demand in the Saskatchewan economy well into 1985. A twenty percent decline in grain production in 1984 caused a sharp decline in net farm incomes. While the decline will probably not be as severe as initially feared, it will ensure a good deal of caution on the part of both consumers and producers through the first half of 1985. Retail sales and housing starts declined sharply in the second half of 1984, reflecting in large measure the impact of the drought on consumer confidence. Little improvement in either housing or retail sales is expected until late in 1985.

If an average grain crop is achieved in 1985, the resulting gain in real output and improved consumer confidence should more than offset the weakness in other sectors of the economy. Based on the assumption of a normal harvest, real domestic product in Saskatchewan is forecast to increase by 2.5 percent in 1985, slightly more than the 2.0 percent rate of growth projected for the Canadian economy as a whole.

Prospects for a return to a crop roughly in line with the long-term trend have been helped by substantial precipitation in the fall of 1984. Relatively large final payments expected from the Canadian Wheat Board, crop insurance payments and a promised "handsome" payment from the Grain Stabilization Plan prior to seeding, together with the likelihood of generous Wheat Board quotas, should offset much of the concern over low international grain prices. The result is expected to be a larger than normal area seeded in the spring of 1985. This provides the potential for a better than average size harvest. Given adequate growing conditions, a good crop should contribute to a modest upswing in economic activity in the latter part of 1985. However, agriculture will not provide strong stimulus to the economy until the United States deals with its huge grain stocks and prices recover internationally.

Oil and gas production increased by an estimated 15 percent and 25 percent, respectively, in 1984. There is limited capacity to permit a further expansion in 1985. However, oil exploration and development, particularly in the heavy oil producing regions of the province,

should continue to grow, barring a major decline in world oil prices that would undermine the viability of the proposed upgrading plants in Regina and Lloydminster. Recent federal government oil policy announcements are expected to have a moderately stimulative effect on the petroleum industry in Saskatchewan. Offshore potash markets improved considerably in 1984, leading to a recovery in production from the poor level of 1983. Potash production for the calendar year 1984 is estimated at 7.5 million tonnes, up from 5.9 million tonnes in 1983. The 1984 figure represents a record level of production. Since the industry is now operating at very close to full capacity, there will be little room for increased production until the $400-million Lanigan mine and the $100-million Kalium expansion come on stream in 1986. Construction work on both projects is expected to take place in 1985.

Uranium production increased sharply in 1984 as the Key Lake Mine came into full production. Some further increase in output at Key Lake is possible in 1985 if the mine has put its start-up problems behind it. Uranium exploration is expected to remain well below the levels achieved in the 1979-1980 period due to continuing weak demand worldwide. After several years of very slow growth in nuclear power generating capacity in the United States, an estimated 13 percent increase in 1984 provides a basis for some optimism about future uranium demand. However, concern over growing protectionist pressures from the American uranium mining industry will likely forestall any immediate expansion in Saskatchewan.

With the exception of farm machinery-related products, the Saskatchewan manufacturing sector showed strength similar to the national manufacturing sector in 1984. The weakening demand for manufactured products that is expected in 1985 at the national level will also be reflected in slower output growth in Saskatchewan.

In the construction industry, a 30 percent decline in housing starts in 1984 was largely offset by a substantial increase in commercial building, particularly in Regina. In the absence of lower mortgage interest rates, housing is not expected to recover in 1985. Commercial construction is also expected to taper off over the year. Strength in the construction sector will be provided mainly by work on the two potash projects and the ongoing Saskatchewan Power Corporation program that provides natural gas distribution facilities to farms and small towns in Saskatchewan. In 1985, site preparation work on the Lloydminster heavy oil upgrader is expected to begin but the bulk of the construction work is not likely to take place until 1986 and 1987. The government sector is not expected to undertake any significant new construction activity in 1985.

The service sector is forecast to remain weak through most of 1985 in response to caution induced by the 1984 drought. Retail sales are expected to show no growth in 1985 and, with a slow housing sector, real estate and related businesses are also expected to remain weak.

Labour force growth, which slowed to 6,000 in 1984 from 15,000 in the previous year, is likely to return to about its trend rate of 10,000 in 1985, despite growing unemployment. The very large increases in the unemployment rates of Alberta and British Columbia in recent years may contribute to reduced out-migration and higher in-migration for Saskatchewan.

Employment in 1985 is expected to grow by only about 3,000. Increased employment within the commercial,

business and personal service sectors and a small employment increase projected in mining are expected to be partially offset by a decline in public administration employment. Weakness in the residential and commercial construction sectors, in retail trade and in the manufacturing sector is likely to preclude job growth in those industries. As a result, total employment growth is expected to fall well short of labour force growth in 1985. This should be reflected in a rise in the unemployment rate from 8.0 percent in 1984 to 9.0 percent in 1985. The rise could be moderated if, as often happens in Saskatchewan, young people respond to poor job prospects by remaining employed on their parents' farms.

In 1985, there appears to be no major reason to expect growth in the province's Consumer Price Index to diverge significantly from the projected national inflation rate of 4 percent.

TABLE 1

Percent Increase, 1985
(1984 Estimate in Brackets)

Real Domestic Product	2.5	(0.5)
Employment	0.7	(0.5)
Labour Force	2.1	(1.3)
Consumer Price Index	4.0	(3.9)
Unemployment Rate (Percent of the Labour Force)	9.0	(8.0)

The Manitoba Economy in 1985

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Recent overall performance of the U.S. economy has been impressive as indicated by Table 1. In 1984 real output is expected to have risen by some 7.4 percent with unemployment and inflation dropping markedly.

TABLE 1

U.S. Economy

	1982	1983	1984*
Real GNP growth (annual percent change)	-2.1	3.7	7.4
Unemployment (percent)	9.7	9.6	7.4
Consumer prices (annual percent change)	6.0	3.1	4.2

* Projected
Source: OECD Main Economic Indicators

During the past few months however, concern has mounted over increased levels of inventories, reduced retail sales, lower housing starts and reports that shipments have turned down. In addition, many of the leading indicators in the U.S. have indicated a reversal of previous gains, although in September housing sales have rebounded. Overall, the leading economic indicator (unfiltered) has declined from June to August but rebounded in September.

Particularly important in the projection that the U.S. economy

will slow down in 1985 is the end of the Economic Recovery Tax Act of 1982 which was introduced as a supply-side initiative designed to change the marginal tax rates and encourage consumer and investor spending. This legislation is due to cease in the new year, with attendant fears that tax increases may be required to reduce the deficit. Fiscal policy is also expected to become more restrictive, as the U.S. government attempts to trim spending.

The result of these initiatives is expected to reduce growth in 1985 and into 1986, lower employment expansion, and increase unemployment rates. Furthermore, moderating profits and consumer spending (since many households have re-equipped in major durables) is likely to lower investment in plant and equipment. Lower growth is also expected to trim wage gains and with already low savings rates, it is unlikely that there is any hope for consumers to provide stimulus.

No discussion of the U.S. economy is possible without reviewing the massive trade imbalance, with an estimated merchandise deficit of some $105 billion in 1984 and with some analysts projecting an eventual deficit of some $120 billion by 1986. In the last few years, the U.S. has turned from being a net supplier of savings to the world to a net consumer of finance capital. These high levels of merchandise imports and flows of foreign investors seeking high profits and the protection of high real rates of interest has resulted in a very strong dollar, producing a commensurate difficulty for the U.S. in selling manufactures abroad. Only about 6 percent of the U.S. GNP is involved in trade (compared with the 29 percent for Canada) and this trade imbalance can be sustained for a while longer; however, it is expected that the U.S. dollar will begin to decline relative to world currencies in 1985.

Our projections for the U.S. economy in the next year are shown in Table 2. These are derived from averaging recent forecasts prepared in the United States. The standard deviation (S.D.) represents the "variability" of the forecast. If the S.D. is more than half the forecast, there is considerable variability (uncertainty) about the projected figure.

TABLE 2

U.S. Economic Performance 1985

	Forecast	S.D
Real GNP (annual percent change)	3.0	1.0
Unemployment (percent)	7.1	.1
Inflation (annual percent change)	4.9	.6

5.1 THE U.S. SLOWDOWN AND PROSPECTS FOR CANADA

An important difference in the present Canadian "recovery" has been the modest performance exhibited in relation to the U.S. boom. Traditionally many analysts felt that the two economies were inextricably linked with a six-month lag. In the present recovery however, the Canadian economy has performed only modestly, with some renewal in activity of late. There is also controversy over the nature of the present moderation in the U.S. economy, with some arguing that this was needed to "sustain" long-term growth without running the risk of restarting inflation, while others see this as the foreshadowing of a major recession beginning by the summer of 1985.

The important issue regarding the recent U.S. recovery and subsequent slowdown is whether the Canadian economy has only temporarily departed from the historical relationship. Recently, the Conference Board has argued that both cyclical and trend forces account for a divergence in growth rates between Canada and the United States. Cyclically, the fact that we had considerable excess capacity entering the recovery, especially in manufacturing, and that Canadian consumption (i.e., retail sales) was funded out of savings and not increases in disposable income, meant that the consumer would slow expenditures well before the private sector would be willing to re-enter the market for new plant and equipment. Other important factors cited by the Conference Board are the more aggressive fiscal policy in the U.S. (primarily in defence) and the argument that Canadian investment is more "interest rate sensitive." There seems to be little evidence of this interest rate sensitivity, except for the fact that investment is lagging in Canada, and the structure of Canadian interest rates appears to be higher.

The Conference Board relies heavily on the "real" rate of interest (the difference between nominal or prime interest rates and "expected" inflation) - a difficult concept to measure directly. In Canada, the inflation rate seems to have a good chance of remaining stable in the range of 3.5 - 4 percent, and there is some evidence that short-term rates will decline, offering some hope for improvement. The critical problem for the Canadian and world economies is the magnitude of U.S. deficits - both the federal budgetary deficit and the international capital account deficit.

5.2 THE U.S. DEFICIT AND INTEREST RATES

A key element in all economic forecasts for the U.S. (and indirectly Canada) is the federal deficit now projected to be $189 billion in 1984 and $286 billion in 1988 if nothing is done. Several features of this deficit are becoming apparent and a concensus appears to be coalescing in the economics profession with respect to potential remedies.

a. Growth Will Not Reduce the Deficit

Although some supply-siders still maintain that vigorous growth (aided by tax cuts) can allow the U.S. to emerge from the deficit over the next few years, most observers now concede that the problem has become endemic. The recent spurt in growth has not made a significant

contribution to revenues. Certainly while the Economic Recovery Tax Act of 1981 did stunt potential revenue growth, other revenues such as excise taxes have actually declined proportionately.

b. Origins of the Deficit

Viewed in the short term (with 1980 as the benchmark) the recent rise in the U.S. deficit stems from increased defence spending, selected tax reductions and increased interest rates. However, viewed in the longer term (with 1970 as the benchmark), it appears that increases in non-means tested entitlements, social service indexation and changes in the structure of taxation have been important in contributing to the deficit. Therefore critics of the present administration are correct in focusing on defence spending in a short-term view, but underlying the deficit are also important structural changes in expenditures and revenue.

c. Broadbased vs. Selected Cuts

It also appears that there is some scope for reducing expenditures by elimination of one or two programs such as dropping some big ticket defence items, but this seems unlikely to occur. Simply, political forces and personal interest groups can always preserve favoured projects. Rather, interest is growing in broad-based expenditure cuts coupled with tax reform, such as the flat tax or a consumption tax. The latter is popular since it would encourage savings which are seen as too low and key to financing the debt.

5.3 DEFICITS, INTEREST RATES AND GROWTH

It is now conceded by a wide group of analysts that the deficit could compromise long-term economic growth, essentially by raising interest rates and the expectation that inflation will resume. Persistent deficits require that government regularly attempts to sell public debt to the private sector. These sales can continue as long as private sector credit demands do not grow, savers are willing to lend by purchasing government bonds, and foreign lenders remain attracted to the domestic economic environment.

The current slowdown is easing fears that the public and private sectors will compete head-on in accessing savings in 1985. Furthermore, since the interest rates on government bonds is attractive, and there have only been defaults in some major utilities and not federal government debt, the general public should continue to purchase this debt. Finally, even though interest rates have been declining, European countries have been matching these rate declines in an attempt to restart their faltering economies. As a result, foreign investors are expected to remain attracted to the U.S. and continue to provide the essential capital to finance federal deficits.

The challenge facing the U.S. monetary authority is to allow interest rates to fall at a moderate pace, thereby stemming the slowdown in economic activity, without destroying the basis for capital inflows from the rest of the world. Some analysts feel this is far too rosy a scenario, and argue that the deficit will not be monetized (i.e. the Federal Reserve will resist purchasing federal debt unless credit restrictions are simultaneously increased) and that interest rates are

inevitably headed upward. Furthermore, with U.S. capacity utilization in the 85 to 90 percent region, even were growth to resume as a result of interest rate moderation, inflation is likely to ensue.

Politically a recession in 1985 would certainly eliminate any chance of increasing the downpayment on the deficit which was made in 1984. No Republican aspirant to the presidency has a recession as part of the plan for ascendancy. A strong dollar, coupled with a continuing slowdown will probably make the Federal Reserve more agressive with respect to interest rate reduction. Certainly the recent action by the "Fed" to directly reduce the discount rate is very clear evidence of the direction they wish to see interest rates move. In sum, it appears that the probability for an interest rate decline is somewhat greater than the chance they will increase. It is important to stress that a resumption of economic activity, coupled with an increase in projected federal deficits (produced by a collapse in bi-partisan support for expenditure control and tax restructuring) would reverse this conclusion immediately.

5.4 THE CANADIAN ECONOMY IN 1985

The Canadian economy has shown recent signs of resurgence. For example, housing starts accelerated in August, retail sales are up for June and July, and the trade surplus was above $2 billion in the summer months. The index of industrial production also jumped sharply to 4 percent in July; a rise that encompassed many of the major industry groups. Given these indications which are at variance from the U.S. experience discussed above, is there a basis for believing that Canada can grow independently from the American economy?

Previously, the Canadian economy was assumed to follow the U.S. by a lag of about six months, but recent history has demonstrated a changed relationship. Using the previous "rules," the projected U.S. downturn might be interpreted as a signal that Canada too would experience a downturn, hardly good news following upon the anaemic recovery witnessed in 1983 and early 1984. However, if the real interest rate is important for Canada, and if rates do fall as the demand for funds in the U.S. subsides because the private sector reins in, then it is possible to conjure a scenario under which Canada may begin to chart its own course.

This possibility seems to turn on the timing of any reduction in interest rates. If rates trend down in the next few months (as they have recently) it may be possible for Canada to chart a separate course from the U.S. and recover somewhat in 1985, and into 1986. This depends on world interest rates as determined by the U.S. financial market and whether they are able to moderate in the next six months or so. This is influenced by the deficit and more importantly the acceptance by U.S. investors of any deficit reduction package which may be introduced by the Reagan administration. If the real rate of interest does fall from its present level of 10 percent, then moderate economic growth could well resume in Canada toward the end of the new year. Rapid growth will probably spark a new round of inflation and reverse present interest rate declines.

On the other hand, if the U.S. downturn becomes more pronounced, and key markets such as housing soften, then the implications for Canada are more serious. Thus, a modest decline in interest rates could well stimulate the Canadian economy. But

if the U.S. economy slows too sharply, demand for big Canadian products could flag, and choke any recovery.

Events in Canada may also shape our economic destiny. The recent budget address by Finance Minister Wilson demonstrates an initial start at reducing the deficit in Canada. It is likely that the short-term outcome of this, and any further deficit reductions to be announced next spring, may be to increase unemployment, assuming there is not offsetting alteration in private sector investment activity. So while overall fiscal policy is likely to become somewhat less expansionary than it has of late, and while this usually argues for a reduction in economic activity (or inflation during times of higher employment), it may be that renewed investor confidence could compensate.

Trade policy does hold some promise for change, with some possibilities for tariff relaxation. However, this is likely to be implemented, if at all, in 1986 and thereupon the effects unlikely to make their appearance until 1987.

In summary, the Institute predicts that 1985 will be a modest year, with most indicators replicating performance shown in 1984. Any sustained upturn will be indicated toward the end of the year, if at all. This forecast is clearly dependent upon a policy landscape which is probably going to become more contractionary, but the riddle is the ephemeral concept known as "business confidence." It simply is too early to speculate whether the change in government and the economic statements thus far will produce tangible changes in attitude and eventual performance of the investor community. Certainly there is no evidence of changed behaviour to date. Also, the nature of the U.S. slowdown is key. If it is a pause, allowing interest rates to subside, then prospects improve. If it turns out to be a more pronounced decline, then exports and employment could suffer and any recovery in Canada will stall.

TABLE 3

The Canadian Economy in 1985

Real GNP (annual percent change)	1.2
Employment (annual percent change)	1.9
Unemployment (percent)	11.0
Inflation (annual percent change)	4.0

5.5 THE MANITOBA ECONOMY IN 1985

Last December, the Institute presented the following forecast for Manitoba in 1983.

TABLE 4

ISER Forecasts for 1984

Real Domestic Product (annual percent change)	3.5
Employment (annual percent change)	2.1
Unemployment (percent)	9.1
Consumer Price Index (annual percent change)	6.9

Source: Western Canada Outlook Western Economic Review, Volume 2, No. 4.

It is too early to definitively judge last year's forecast, but it does appear to have been a trifle pessimistic, especially with respect to the ability of the Manitoba economy to provide jobs. Whether the real growth rate (real domestic product) will achieve the projected 3.5 percent remains to be seen and will not be known until the new year, but it does appear, based upon data available to date, that this will be close to the actual performance. Consumer prices continue to fall, in part due to declines in interest rates, which are running counter to most projections made until quite recently.

In general, the Manitoba economy performed somewhat above expectations in 1984, but concern is growing, first over the sluggish performance in the Canadian economy (although recent trends are encouraging) and also the apparent moderation of growth and activity in the U.S. economy.

The next twelve months pose particular problems in forecasting the Manitoba economy. In the last three years, provincial performance has generally been above average, but danger signals abound. Consider employment. Much of the employment created in the past year has been concentrated in construction and services. It is likely that service sector activity is reasonably robust, but employment in construction is very sensitive to public sector activity. The increased stringency in federal spending could pose short-run challenges as some capital projects are attenuated. The Limestone hydroelectric project and the possible potash developments have assumed a more strategic role in the economy, above and beyond any rationale for the projects in isolation. It seems certain that one or both projects will proceed in 1985.

Agriculture, which was weak in

1983 and advanced dramatically (13 percent increase) will probably maintain its overall contribution (barring drought or crop failure). A key sector is manufacturing, which historically formed a major element of growth and stability for the province, now appears to be lagging. Contrary to national trends, shipments and per capita investment have been slow (see Figure 1). Shipments, employment and per capita investment are down, contrary to national trends.

TABLE 5

Population (Thousands)

	Manitoba	Percent Change	Canada	Percent Change
1981	1026.9		24366.2	
1982	1034.5	.74	24656.5	1.19
1983	1046.3	1.14	24904.2	1.0
1984	1054.4	.77	25082.0	.7

Source: Canadian Statistical Review, Statistics Canada 11-003.

Finally, a trend noted in last year's outlook continues. In-migration rates persist, adding population and compounding difficulties in maintaining low unemployment rates. It seems inevitable that progress in providing jobs will be frustrated by immigrants coming to Manitoba.

The forecast for Manitoba in 1985 appears below:

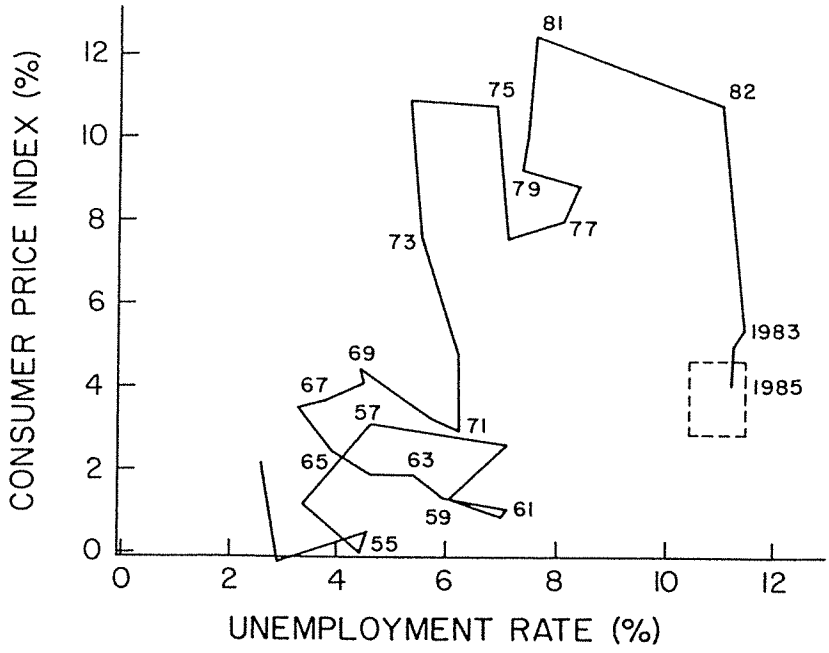
TABLE 6

Forecast for Manitoba in 1985
(November 21, 1984)

Real GDP (annual percent change)	1.7
Employment (annual percent change)	1.4
Unemployment (percent)	9.1
Consumer Price Index (annual percent change)	3.5

Figure 1

THE YEAR AHEAD



Book Reviews

Crispo, John, National Consultation, Policy Commentary No. 5, C.D. Howe Institute, Toronto, September, 1984, (43 pp.)

John Crispo has a reputation for being a bit of a maverick in the field of Canadian industrial relations, a reputation earned from his blunt, sometimes one might suggest, slightly outrageous suggestions and pronouncements, and his favourable attitudes towards unions delivered from his position as professor in a school of management. Crispo's latest advisory foray, National Consultation, commissioned by the C.D. Howe Institute, is an attempt to resurrect some variant of tri-partite consultation among labour, management and the government to respond to the current economic crisis of inflation and unemployment in Canada, a crisis he sees rooted in poor competitiveness due to poor productivity growth. According to Crispo, the paramount issue concerns "the lack of consensus among business, labour, and government about the problems and how they should be confronted" (p. 1).

Crispo's starting point is that Canada's poor international competitiveness, which leads to high levels of inflation and unemployment, is due to poor productivity growth which, in turn, is caused by a failure of labour and management to consult on a meaningful program of productivity improvement. In short, how does management induce labour to be less concerned about the distribution of the pie and concentrate more on increasing the size of the pie? (pp. 5-6).

Crispo suggests why labour has not been willing in the past to cooperate with employers and government in such endeavours. He chronicles in some detail the history of bad faith, paternalism, lack of consultation, double-cross and the equation of incomes policy with wage controls by government (generally with the approval of employers) that has sorely tried the faith and patience of organized labour, though he also contends that management was equally disillusioned with government's failure to consult with it or to act upon its advice (p. 18).

A review of foreign experience, Crispo argues, suggests the thesis that "labour-management-government consultation is most likely to work when labour is accepted as an equal in the process" (p. 23). But what Crispo fails to make clear, though

it is implicit in his examples, is that labour is accepted as an equal only when a social-democratic labour party is either the government or official opposition. He does add a caveat that there can be no agreement on a voluntary income restraint policy to control inflation - not only because restraint raises the contentious distribution problem, but also because of the fragmented and decentralized nature of Canadian employers, unions, and government jurisdictions. Inflation control, therefore, must be achieved through conventional fiscal and monetary policy, although Crispo proposes a "cost and incomes commission" that would monitor and investigate income increases "out of line with their peers" (p. 25). However, the commission would be powerless to do anything but publicize, and Labour would have only one of the eight proposed members of this commission.

Crispo's faith for national consultation lies in the Canadian Labour Market and Productivity Centre, a bipartite body established at the request of the Business Council on National Issues and the Canadian Labour Congress, but funded by the federal government. The centre's goal is to advise government on "the critical link between manpower adjustment and increasing productivity" (p. 28) but its mandate is to be construed in the narrow technical sense since all policy is to be left solely in the hands of government so as not to challenge its sovereignty.

Finally, Crispo argues that if this consultative process is to be effective, it will require three prerequisites:

a. the acceptance by government and management of labour as a legitimate and equal partner,
b. the restoration of full collective bargaining rights in the public sector, and
c. the abstinence by politicians and the business community of "union bashing," both in organizational and ideological terms (pp. 37, 38, 40).

As usual, Crispo presents what appears to be a balanced approach, absolving labour from unilateral responsibility for the failure of national consultation. If there are "villains" in his analysis it is government for a failure to consult meaningfully and, to a lesser extent, employers who refuse to accept the legitimacy of organized labour.

Three rather fundamental questions arise concerning Crispo's basic argument. Is the critical cause of Canada's competitive failure that of poor productivity performance due to inadequate manpower adjustment? Can we continue to ignore the distribution question in a world where rapid economic growth is, by all forecasts, highly unlikely? Thirdly, can we expect government at both provincial and federal levels to voluntarily consult with labour, and accept labour as a legitimate equal? To all three questions the evidence would suggest an emphatic "no"!

Very briefly, economic research indicates that the prime determinant of productivity increase is the level and structure of new capital investment. Given present interest rates and the "capital strike" in productive investment, and the resultant high unemployment, manpower adjustment can do little to solve the problem. Secondly, with relatively slow rates of projected economic growth, distribution will become more contentious and appeals to all parties to keep incomes "in line with their peers" implies a stagnant, regressive, income distribution. Thirdiy, one need only refer to the government's assault on organized labour, perhaps best manifested by policies in B.C., to

question the efficacy of a program based on acceptance of labour as a legitimate equal. If any final piece of evidence were needed, perhaps it would be the parody on the union hymn "Solidarity Forever" that circulated at the last CLC convention, reportedly with the blessing of its President, Dennis McDermott. The words of "Productivity Forever" can leave few illusions about how organized labour views Crispo's favoured instrument of national consultation, the Labour Market and Productivity Centre.

Paul Phillips, Department of Economics, University of Manitoba.

Wiseman, Nelson, Social Democracy in Manitoba: A History of the CCF/NDP, University of Manitoba Press, 1983, (180 pp.)

Dr. Wiseman's account is a useful, if limited, addition to the small literature on provincial political parties and to the larger but still inadequate body of work on Manitoba politics in particular. The book does not, however, adequately cover some important issues, and the coverage of others is inconsistent.

The book is organized chronologically and most of the content is predictable. The earlier chapters - taking the story of the CCF and its predecessors from early twentieth century Manitoba to the onset of the Second World War, are thin, and reflect Wiseman's problems in marshalling adequate data: much archival data was lost, we are told, in the 1950 flood. The party in the forties is dealt with in the context of entry into the "non-partisan" government of 1940 and the expulsion of Communist sympathizers from party ranks during the Cold War years. Later chapters deal with the formation of the NDP and the party's rise from third party status in the 1960s to the assumption of power on two occasions later on. However, the book basically stops at 1977, and the election of 1981 is dealt with only in passing. Wiseman touches many bases in the later chapters, including party organization, its principles, and the record of the Schreyer government. Tables are occasionally used, generally to show party standings after elections, but they add little to the book.

No single topic is dealt with in much detail, however, and it is here that the book disappoints. Perhaps if the major thematic or theoretical concerns of the book had been clearer, one could forgive the somewhat random nature of the book's organization. (For example, party organizational matters are treated extensively in some chapters, but in a rather cursory fashion in others.) Some of the issues which one would have liked to have seen dealt with in greater detail are rather basic ones, such as why the NDP was able to replace the Liberals as the main alternative to the Conservatives in a relatively short period of time. For example, as Wiseman points out, NDP support in provincial elections went from 15 percent to 47 percent in less than a generation. Or one might have wanted a more coherent and consistent treatment of the party's organizational structure in such areas as, say, the relationship between party elites and the rank and file as the CCF/NDP evolved from an ideological movement to a

pragmatic alternative government.

Dr. Wiseman does deal, though in a very general fashion, with the issue of the NDP's ability to attract new support and eventually win office. Specifically, he mentions ethnic assimilation and the respective and changing roles of ethnicity and class in Manitoba politics. The author also considers, with apparent favour, the proposition (drawn from John Wilson and others) that there is an inevitability about the evolution toward a two-party system. (How this is to be squared with the rather conspicuous exception of Ontario or even the United Kingdom in the last decade is never considered.)

But Dr. Wiseman spends little time on the political dynamics of the process involved in the replacement of the Liberals by the NDP as the alternative to the Tories. There was nothing "inevitable" about it of course. What one looks for almost in vain is any attempt by the author to consider the ways in which the party consciously adapted to a situation wherein it seemed permanently mired in third place. What were the overt programatic responses for example? Did the party analyze its plight, as mildly leftist parties of the same stripe often do, as being too similar to the dominant parties or not similar enough? Dr. Wiseman's treatment of this issue is extremely scanty and lacking in colour. Similarly, did the party ever commit itself to broadening its membership base in practical rather than rhetorical ways? Dr. Wiseman is indeed concerned with problems of party organization, but in a rather spasmodic fashion. We are told, for example, that constituency organizations in areas where the party was electorally weak nonetheless often enjoyed a sizeable dues-paying membership. This reader finds that kind of question much less interesting than the issue of how and why the party's social composition may have changed. Unfortunately, anyone reading this book to find out what kinds of persons commit themselves to active support of the NDP will come away unrewarded. One suspects (at least from my vantage point, outside the party) that the NDP membership consists of unionists, intellectuals, some professionals, and dependents of the state, but we are not enlightened.

Thus, the party's remarkable achievement in "coming from behind" is accounted for far too much by the invisible workings of amorphous social forces, and not enough by reference to deliberate party strategies. This is a pity, since there is sufficient theoretical literature on parties in competitive systems to make the exercise a profitable one.

Dr. Wiseman might also have been more consistent in his treatment of internal organizational matters. It would be wrong to deny the interesting nature of the reasonably (for a book of this length) detailed treatment of such matters. Yet one must almost certainly be less interested in, say, a recitation of membership statistics or brief accounts of some (but not all) party conferences than in a consideration of some broader questions which are not addressed at all. Where, for instance, does power within the party lie? What might a study of evidence from party conferences and elsewhere tell one about the nature of the relationship between the leadership and the grassroots? More interesting yet, has the nature of this relationship changed as the party's role in Manitoba politics has evolved? One wishes for something more than the highly general account of party change and reform one receives.

The period most of the book's readership will be most familiar with is that from 1969 onwards. The

record of the Schreyer government is dealt with extensively, and Dr. Wiseman's account of it is the best part of the book. As he indicates, the major significance of the period for the party, apart from the volume of legislation it brought in, was in legitimizing the NDP as a party of government: after all, Ed Schreyer and most of his cabinet associates were living proof that the NDP, whatever its faults, was far from being the Bolshevik-inspired demon conjured up in the rhetoric of its political opponents. The author is, however, less convincing in accounting for the NDP's overwhelming loss in 1977. He tends to put it down to the party's loss of steam and shortage of new ideas. This reviewer was, in that election, actively engaged in the Conservative campaign. What seemed to me then - and still seems to me to be the case - was that the Schreyer government lost office because it seemed to be falling into left wing hands following the Premier's frequent musings about retirement. Further, its eight years in office left many Manitobans feeling that they were being strangled in red tape and crushed by heavyhanded regulation.

Yet, while the book disappoints, it deserves to be read. There is much in it that is interesting, and it quite literally enjoys a unique position in the literature on Manitoba politics.

Geoffrey Lambert, Department of Political Studies, University of Manitoba.

Economic Indicators

Figure 1

Canada-United States Composite
Leading Indicator

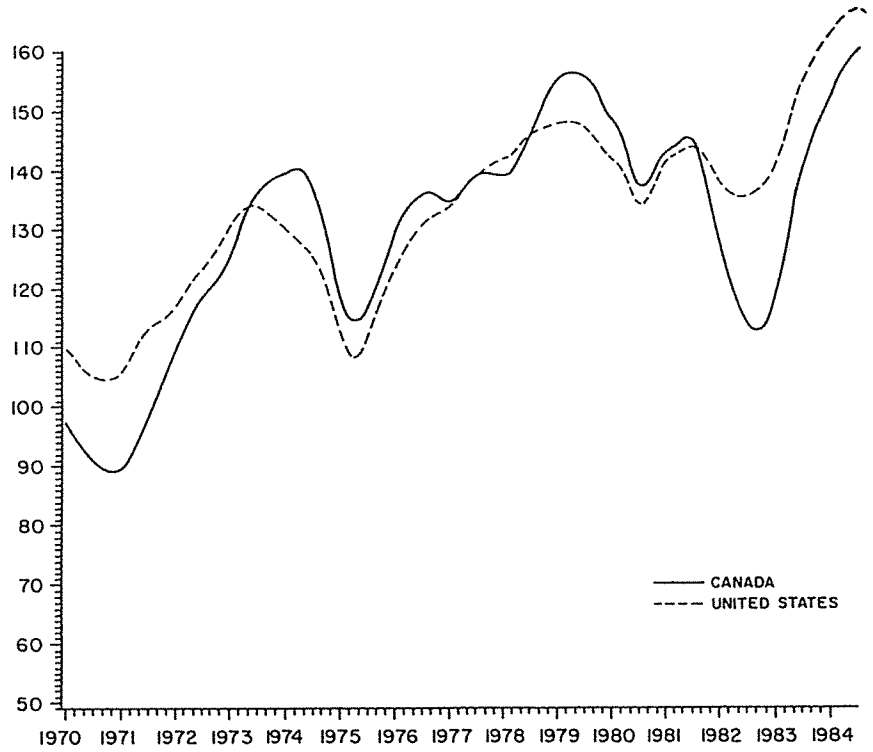


Table 1a
Gross National Expenditure
% Change from same quarter last year

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984 *
Private Consumption	1.1	2.4	4.2	4.9	4.4	3.9	.	.	3.1	3.7
Public Consumption	0.1	-0.2	0.1	1.2	3.3	2.1	.	.	0.3	1.8
Investment	-9.9	-4.2	-0.7	-4.2	0.0	-0.5	.	.	-4.9	0.4
-Public	2.2	0.7	2.1	1.1	2.8	4.4	.	.	1.5	3.0
-Residential	8.4	40.7	40.6	11.3	2.5	-11.4	.	.	24.4	-3.2
-Non Residential	-18.3	-18.4	-13.4	-14.1	-6.4	1.3	.	.	-16.2	1.7
-Mach.&Equipment	-13.6	-10.5	-6.6	-4.1	3.6	3.0	.	.	-8.8	0.4
Change in Stocks, %GNE	-1.5	-1.1	1.1	0.8	0.3	0.7	.	.	-0.2	0.5
Exports	0.5	2.2	2.1	21.6	25.2	19.2	.	.	6.4	19.9
Imports	-3.1	2.3	11.2	23.0	24.3	19.3	.	.	8.1	17.3
GNE	-0.8	2.2	4.8	7.1	5.8	4.6	.	.	3.3	4.2
**	8.0	7.6	7.8	5.1	2.8	3.0	.	.		

*: Average rate of growth based on the first available quarters, at annual rate.

**: % Change from previous quarter, at annual rate.

Table 1b
Gross National Expenditure
% Change from previous quarter, at annual rate.

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984
Private Consumption	4.3	6.3	5.3	3.6	2.5	4.1	.	.	3.1	3.7
Public Consumption	-6.3	3.7	3.6	4.2	1.5	-0.8	.	.	0.3	1.8
Investment	-13.3	2.4	-1.9	-3.4	3.2	0.2	.	.	-4.9	0.4
-Public	-6.2	-2.4	7.6	6.1	0.4	3.6	.	.	1.5	3.0
-Residential	38.8	95.7	-15.2	-33.4	-0.3	9.3	.	.	24.4	-3.2
-Non Residential	-27.3	-18.8	-10.1	2.5	2.5	11.3	.	.	-16.2	1.7
-Mach.&Equipment	-21.5	-11.8	11.9	9.2	6.8	-13.8	.	.	-8.8	0.4
Change in Stocks, %GNE	-1.5	-1.1	1.1	0.8	0.3	0.7	.	.	-0.2	0.5
Exports	21.8	17.1	7.5	42.7	36.7	-3.6	.	.	6.4	19.9
Imports	22.2	15.6	31.3	23.5	27.4	-1.8	.	.	8.1	17.3
GNE	8.0	7.6	7.8	5.1	2.8	3.0	.	.	3.3	4.2
**	-0.8	2.2	4.8	7.1	5.8	4.6	.	.		

**: % Change from same quarter last year.

Figure 2

Unemployment Rate

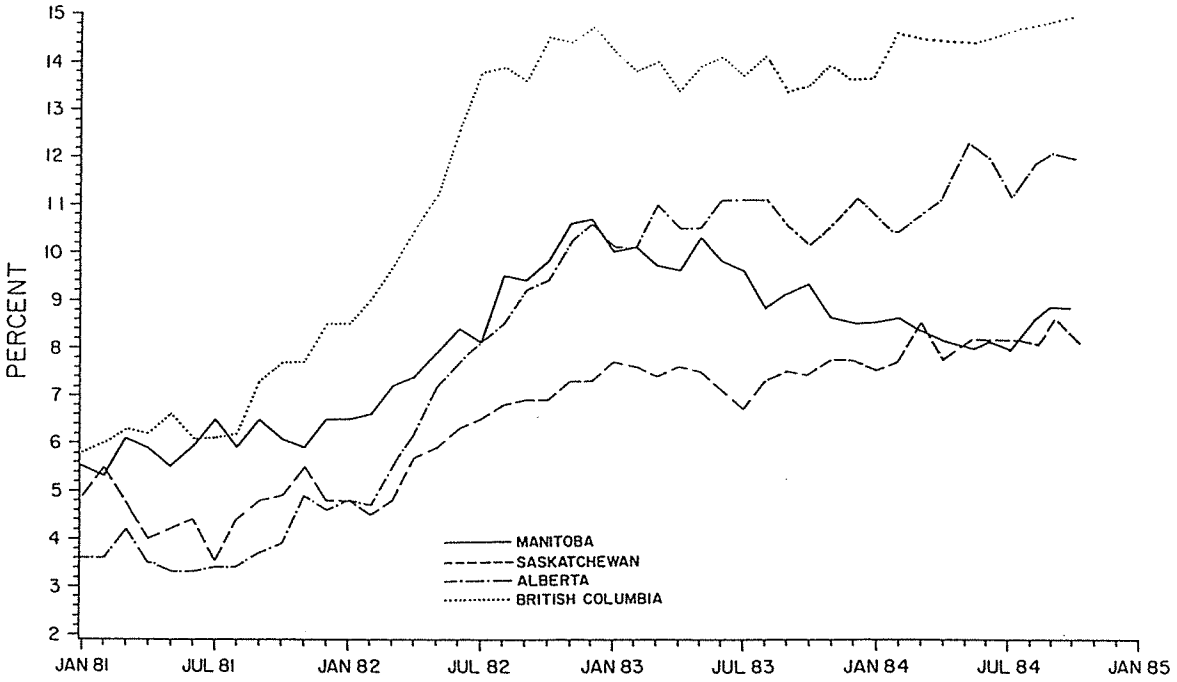


Figure 3

Employment
(Percent Change From Same Month Last Year)

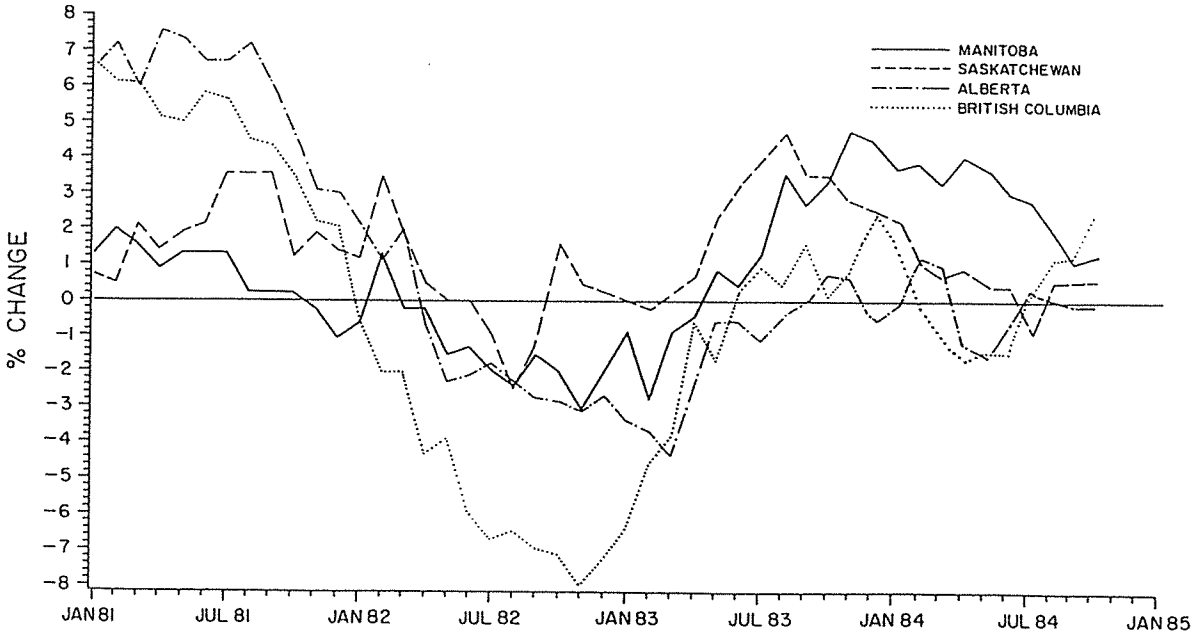


Figure 4

Help Wanted Index

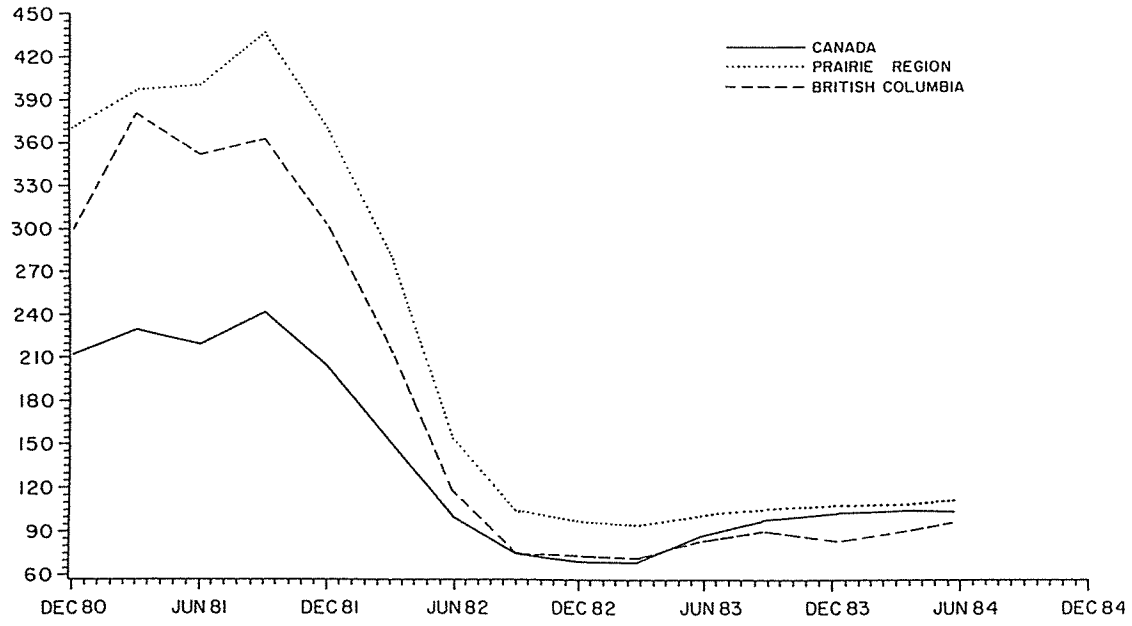


Table 2a
Regional Employment and Unemployment
% Change from same quarter last year

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984 *
CANADA										
Labour Force	1.2	2.0	1.9	1.6	1.8	1.3	1.7	.	1.7	1.8
Employment	-2.8	-0.0	2.6	3.5	3.2	2.3	2.1	.	0.8	2.4
Unemployment Rate	12.5	12.3	11.6	11.1	11.3	11.4	11.3	.	11.9	11.4
MANITOBA										
Labour Force	2.0	2.4	3.2	2.2	1.7	1.2	1.0	.	2.5	1.2
Employment	-1.4	0.1	2.9	4.0	3.5	3.4	1.7	.	1.4	2.5
Unemployment Rate	9.9	9.8	9.0	8.8	8.4	7.9	8.4	.	9.4	8.2
SASKATCHEWAN										
Labour Force	3.2	3.7	4.3	2.9	1.6	1.0	0.9	.	3.5	1.1
Employment	0.2	2.2	3.9	2.5	1.2	0.4	-0.2	.	2.2	0.3
Unemployment Rate	7.5	7.3	7.1	7.5	7.8	7.9	8.1	.	7.3	7.9
ALBERTA										
Labour Force	1.8	2.5	1.7	0.6	0.3	-0.4	0.6	.	1.6	0.4
Employment	-4.1	-1.3	-0.6	0.1	0.5	-1.3	-0.1	.	-1.5	-0.3
Unemployment Rate	10.7	10.8	10.9	10.7	10.5	11.6	11.5	.	10.7	11.2
B. C.										
Labour Force	1.0	2.4	1.3	0.1	0.1	0.3	1.6	.	1.2	1.4
Employment	-4.4	-0.1	1.3	1.0	-0.1	-1.7	0.6	.	-0.6	0.2
Unemployment Rate	14.0	13.7	13.7	13.7	14.2	15.5	14.6	.	13.8	14.8

*: Average rate of growth based on the first available quarters, at annual rate.

Table 2b
Regional Employment and Unemployment
% Change from previous quarter, at annual rate

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984 *
CANADA										
Labour Force	0.5	4.6	2.0	-0.6	1.4	2.3	3.8	.	1.7	1.8
Employment	1.8	5.7	5.0	1.5	0.6	2.0	4.2	.	0.8	2.4
Unemployment Rate	12.5	12.3	11.6	11.1	11.3	11.4	11.3	.	11.9	11.4
MANITOBA										
Labour Force	2.7	2.9	1.3	1.8	0.8	1.0	0.3	.	2.5	1.2
Employment	4.8	3.3	5.0	2.9	2.6	3.2	-1.7	.	1.4	2.5
Unemployment Rate	9.9	9.8	9.0	8.8	8.4	7.9	8.4	.	9.4	8.2
SASKATCHEWAN										
Labour Force	5.0	3.5	2.6	0.6	-0.3	1.1	2.3	.	3.5	1.1
Employment	3.5	4.1	3.4	-0.9	-1.8	0.9	0.9	.	2.2	0.3
Unemployment Rate	7.5	7.3	7.1	7.5	7.8	7.9	8.1	.	7.3	7.9
ALBERTA										
Labour Force	-0.7	3.5	0.7	-1.0	-1.9	0.5	4.9	.	1.6	0.4
Employment	-2.7	2.9	0.5	-0.2	-1.1	-4.5	5.4	.	-1.5	-0.3
Unemployment Rate	10.7	10.8	10.9	10.7	10.5	11.6	11.5	.	10.7	11.2
B. C.										
Labour Force	0.1	4.2	-0.3	-3.5	0.0	5.3	5.0	.	1.2	1.4
Employment	2.4	5.5	-0.3	-3.5	-1.9	-1.1	9.2	.	-0.6	0.2
Unemployment Rate	14.0	13.7	13.7	13.7	14.2	15.5	14.6	.	13.8	14.8

*: Average rate of growth based on the first available quarters, at annual rate.

Table 3a
Regional Prices and Wages
% Change from same quarter last year

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984
CANADA										
CPI, Total	7.6	5.9	5.3	4.6	5.2	4.6	3.9	3.7p	5.8	4.3
Average Weekly Earnings	6.9	7.6	7.9	7.0	5.7	4.3	.	.	7.3	3.6
MANITOBA										
CPI, Winnipeg	7.5	7.6	6.8	5.0	5.0	3.1	3.2	3.3p	6.7	3.7
Average Weekly Earnings	8.2	7.9	9.4	8.8	7.5	6.1	.	.	8.6	4.8
SASKATCHEWAN										
CPI, Regina	6.5	6.6	6.8	6.0	5.5	4.5	3.9	3.6p	6.4	4.4
CPI, Saskatoon	6.0	6.4	7.1	5.9	5.3	4.0	2.4	2.6p	6.3	3.6
Average Weekly Earnings	7.8	7.0	8.1	6.4	5.4	5.0	.	.	7.3	3.8
ALBERTA										
CPI, Edmonton	7.4	6.3	5.3	4.3	4.0	2.3	2.6	2.2p	5.8	2.8
CPI, Calgary	7.0	5.4	3.0	2.7	3.1	1.8	2.9	2.1p	4.5	2.5
Average Weekly Earnings	8.5	7.7	6.7	5.8	4.9	2.8	.	.	7.2	2.5
B. C.										
CPI, Vancouver	6.7	5.6	5.3	4.6	4.7	4.2	3.7	3.7p	5.5	4.1
Average Weekly Earnings	7.7	8.1	7.6	4.8	1.5	2.4	.	.	7.1	3.3

*: Average rate of growth based on the first available quarters, at annual rate.

p: Preliminary figure.

Table 3b
Regional Prices and Wages
% Change from previous quarter, at annual rate.

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984
CANADA										
CPI, Total	2.5	5.7	6.6	3.5	4.9	3.5	3.8	2.6p	5.8	4.3
Average Weekly Earnings	3.1	10.5	8.1	6.4	-1.8	4.9	.	.	7.3	3.6
MANITOBA										
CPI, Winnipeg	1.9	11.2	4.8	2.4	2.0	3.1	5.5	2.8p	6.7	3.7
Average Weekly Earnings	6.2	10.5	18.1	1.0	1.3	5.0	.	.	8.6	4.8
SASKATCHEWAN										
CPI, Regina	4.1	7.1	8.0	4.6	2.5	3.2	5.2	3.5p	6.4	4.4
CPI, Saskatoon	5.1	8.8	7.7	2.2	2.6	3.6	1.1	3.1p	6.3	3.6
Average Weekly Earnings	1.9	10.2	16.2	-1.8	-1.7	8.2	.	.	7.3	3.8
ALBERTA										
CPI, Edmonton	3.9	8.4	3.5	1.6	2.7	1.3	4.6	0.2p	5.8	2.8
CPI, Calgary	1.2	7.2	-0.2	2.8	2.9	1.9	4.0	-0.3p	4.5	2.5
Average Weekly Earnings	9.9	5.4	8.5	-0.1	6.2	-3.1	.	.	7.2	2.5
B. C.										
CPI, Vancouver	3.7	5.6	7.2	1.8	4.1	3.8	5.2	1.6p	5.5	4.1
Average Weekly Earnings	11.0	11.4	3.6	-5.8	-2.3	15.4	.	.	7.1	3.3

*: Average rate of growth based on the first available quarters, at annual rate.

p: Preliminary figure.

Figure 5

Consumer Price Index
(Percentage Change From Same Month Last Year)

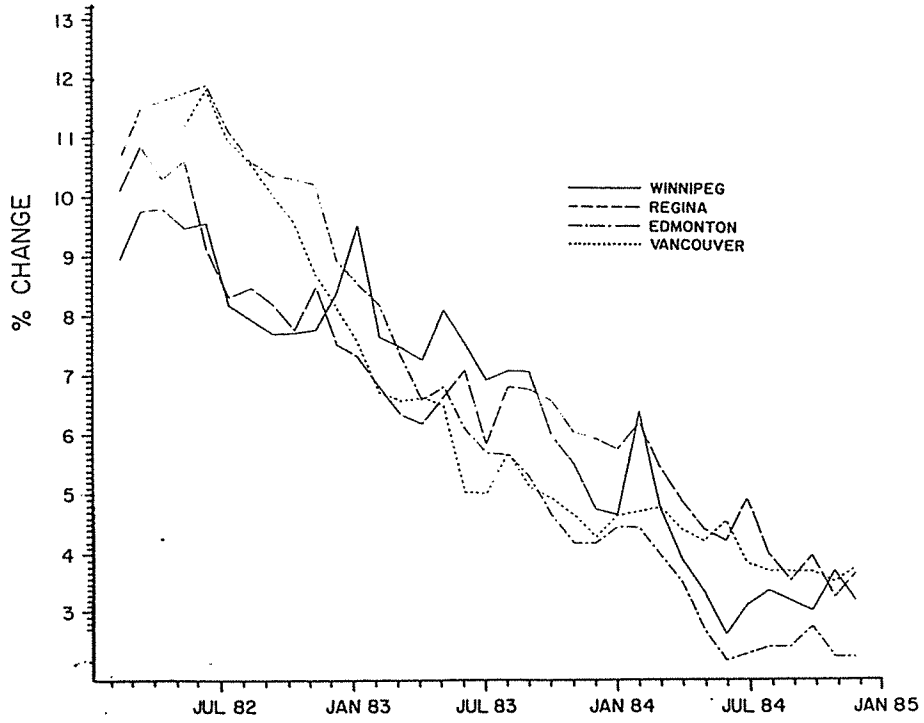


Figure 6

Average Weekly Earnings (Real)

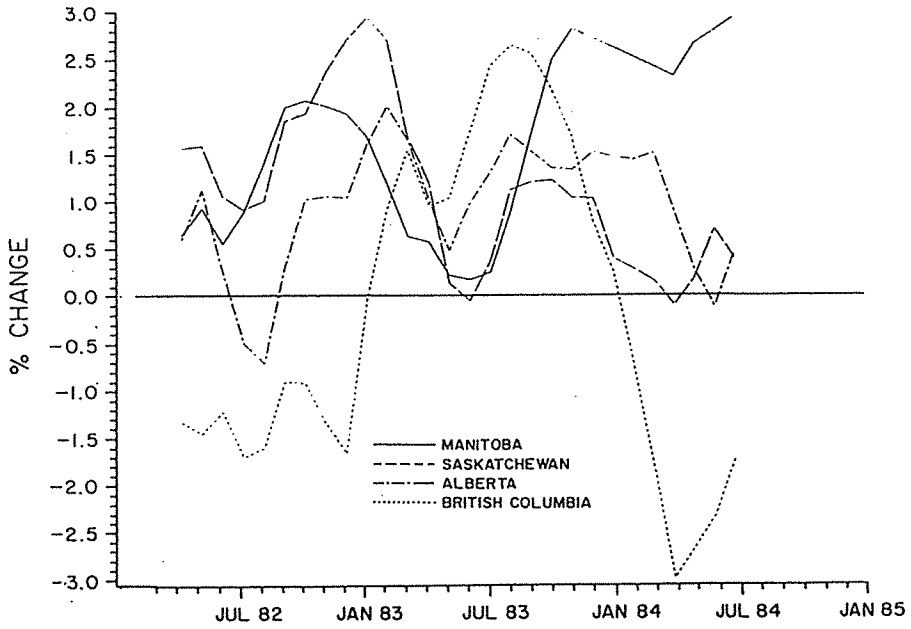


Table 4a
Regional Indicators of Economic Activity
% Change from same quarter last year

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984 *
CANADA										
Retail Trade	6.7	7.6	9.8	10.6	9.6p	.	.	.	8.7	8.4
Shipments	0.3	6.6	9.9	19.4	17.9	13.7	.	.	9.0	13.2
Housing Starts	0.0	83.3	37.9	-3.6	-9.9	-36.4	.	.	25.0	-15.3
MANITOBA										
Retail Trade	4.5	4.4	8.6	9.8	9.7	9.4	.	.	6.8	8.5
Shipments	-5.5	-1.1	-0.5	6.0	9.7	8.3	.	.	-0.3	13.4
Housing Starts	400.0	166.7	600.0	33.3	0.0	-37.5	.	.	200.0	-9.0
SASKATCHEWAN										
Retail Trade	6.8	5.6	11.5	8.3	3.5	2.2	.	.	8.0	0.6
Shipments	-4.9	1.8	10.1	9.2	17.1	9.7	.	.	4.2	19.0
Housing Starts	0.0	120.0	-28.6	-62.5	0.0	-63.6	.	.	-3.4	-18.0
ALBERTA										
Retail Trade	1.8	1.6	5.3	4.1	2.1	2.9	.	.	3.2	2.0
Shipments	-7.7	1.1	4.3	8.4	11.1	7.3	.	.	1.5	10.2
Housing Starts	-30.0	-34.3	-39.1	-40.0	-57.1	-69.6	.	.	-35.2	-63.7
B. C.										
Retail Trade	-2.1	4.0	6.7	7.1	6.2	4.4	.	.	3.9	5.1
Shipments	-1.8	11.1	16.5	11.9	-1.0	0.5	.	.	9.3	6.1
Housing Starts	-48.5	84.2	53.8	18.8	29.4	-51.4	.	.	12.3	-22.8

*: Average rate of growth based on the first available quarters, at annual rate.
p: Preliminary figure.
Note: Shipments are not seasonally adjusted.

Table 4b
Regional Indicators of Economic Activity
% Change from previous quarter, at annual rate.

	1983 I	1983 II	1983 III	1983 IV	1984 I	1984 II	1984 III	1984 IV	1983	1984 *
CANADA										
Retail Trade	11.6	10.8	11.7	8.3	7.6p	.	.	.	8.7	8.4
Shipments	20.5	22.0	17.9	17.3	14.7	5.4	.	.	9.0	13.2
Housing Starts	90.7	184.0	-78.7	-25.3	45.6	-29.2	.	.	25.0	-15.3
MANITOBA										
Retail Trade	7.0	8.6	13.7	9.8	6.6	7.8	.	.	6.8	8.5
Shipments	-16.6	60.0	-4.1	-1.4	-4.4	52.1	.	.	-0.3	13.4
Housing Starts	671.6	555.4	-41.4	-89.3	144.1	0.0	.	.	200.0	-9.0
SASKATCHEWAN										
Retail Trade	20.2	1.2	13.3	-0.3	0.4	-3.9	.	.	8.0	0.6
Shipments	-23.1	140.5	21.1	-36.4	1.6	85.1	.	.	4.2	19.0
Housing Starts	60.2	123.2	-95.7	-87.0	8000.0	-96.1	.	.	-3.4	-18.0
ALBERTA										
Retail Trade	9.4	-1.0	6.9	1.6	1.1	2.1	.	.	3.2	2.0
Shipments	-19.7	72.6	15.2	-13.4	-11.5	50.3	.	.	1.5	10.2
Housing Starts	21.6	43.9	-86.3	-46.0	-68.4	-63.4	.	.	-35.2	-63.7
B. C.										
Retail Trade	10.0	12.8	7.2	-1.0	6.2	5.3	.	.	3.9	5.1
Shipments	10.7	88.3	-13.1	-13.6	-32.1	99.9	.	.	9.3	6.1
Housing Starts	27.4	1696.7	-89.3	-18.5	79.8	-64.3	.	.	12.3	-22.8

*: Average rate of growth based on the first available quarters, at annual rate.
p: Preliminary figure.
Note: Shipments are not seasonally adjusted.

Figure 7

Capacity Utilization in Manufacturing
(Percent)

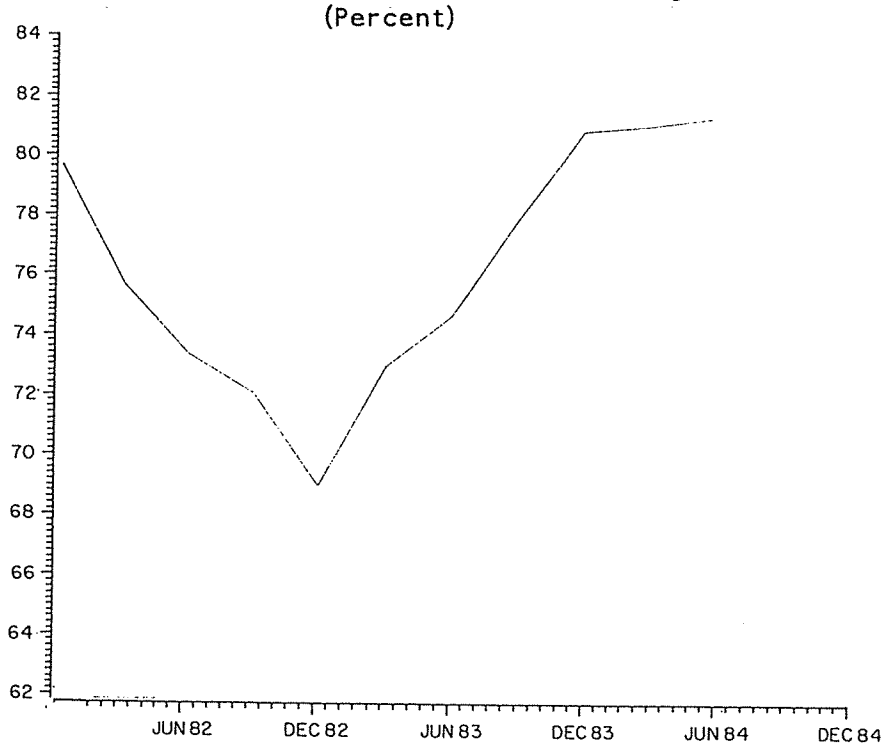


Figure 8

Shipments (Manufacturing)
(Percent Change Same Month Last Year)

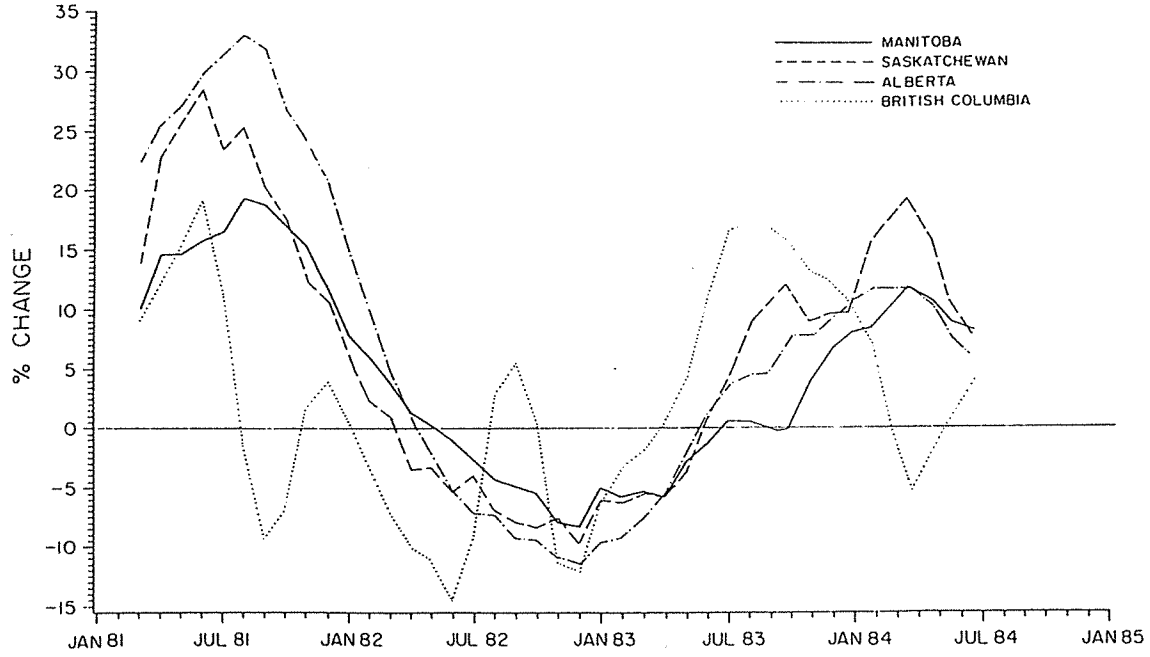
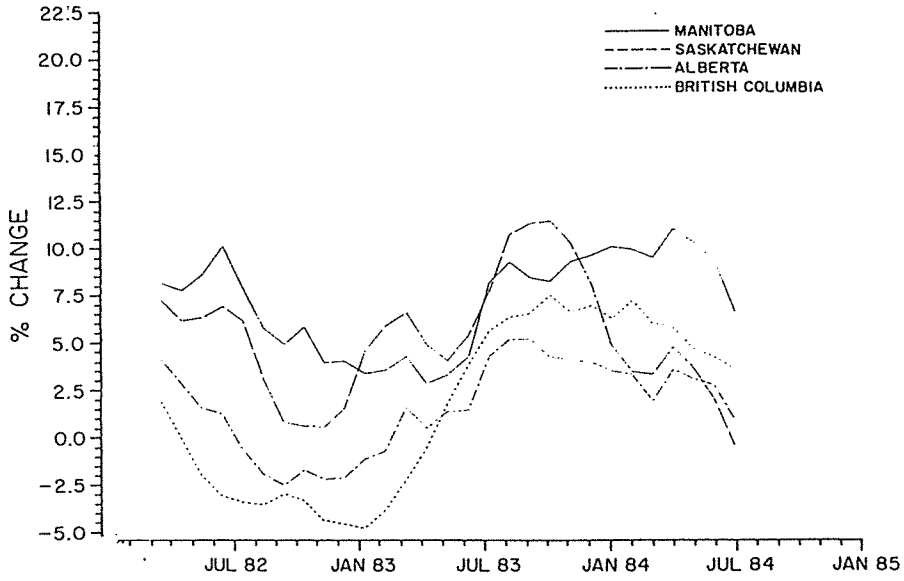


Figure 9

Retail Trade
(Percentage Change Same Month Last Year)



Note: Three month moving average.

Figure 10

Wheat Board Price
(Cents/Bushel)

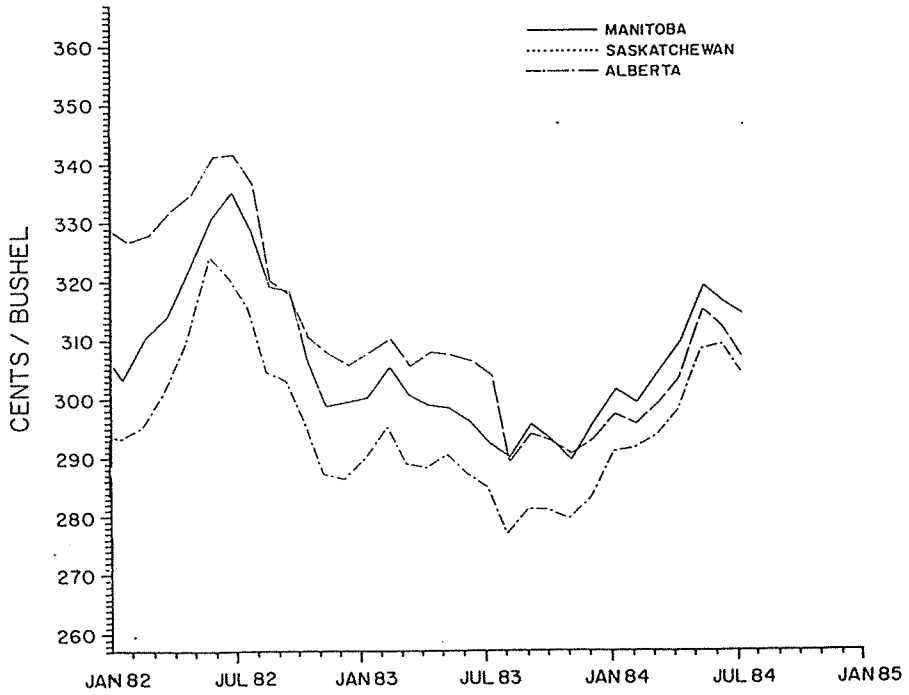


Figure 11

Monetary Aggregates

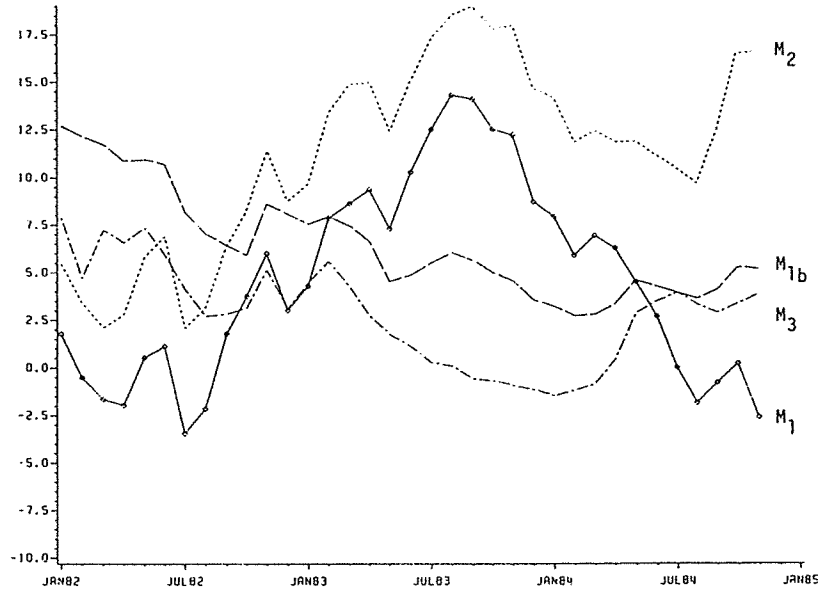


Figure 12

Bank Rate

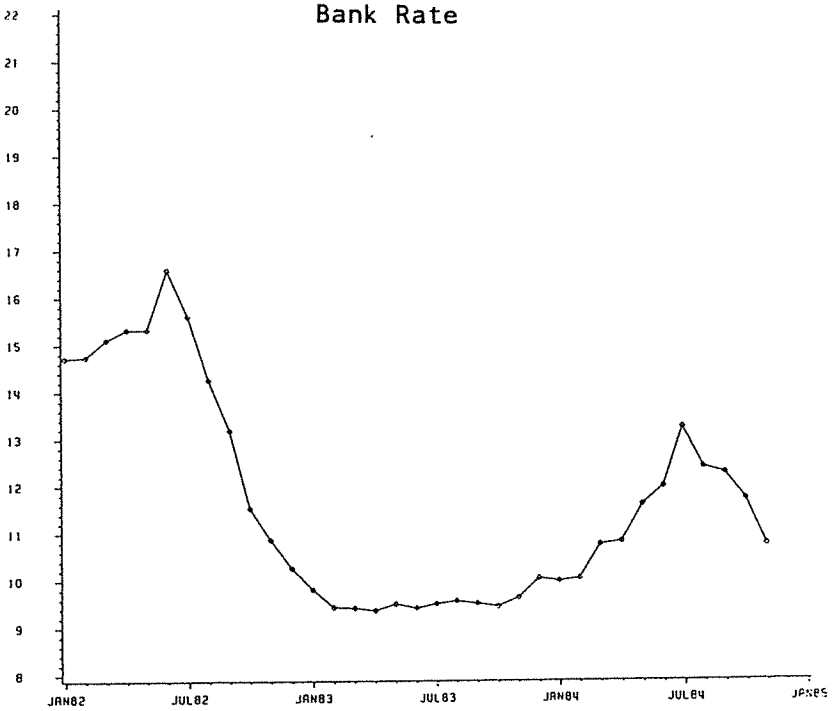


TABLE 5
Manitoba: Percent Changes From Same Month Last Year

DATE	CPI	REAL WAGES & SALARIES	SHIP-MENTS	UNEMPLOY-MENT RATE	EMPLOY-MENT	REAL RETAIL TRADE	REAL AVERAGE WEEKLY EARNINGS	LEADING INDUSTRY EMPLOYMENT: MANUFACTURING
JAN83	7.7	-2.4	-1.5	9.9	-0.7	-3.8	0.9	-1.7
FEB83	7.5	-3.6	-9.4	10.1	-2.6	-5.0	-0.1	-1.7
MAR83	7.3	-3.6	-5.1	9.7	-0.9	0.4	1.0	-5.0
APR83	8.2	-3.8	-3.4	9.7	-0.7	-8.2	-0.2	-1.7
MAY83	7.6	-2.3	-0.6	10.0	0.7	-3.7	-0.2	3.4
JUN83	7.0	-2.3	0.4	9.8	0.2	3.3	1.2	1.7
JUL83	7.1	-2.2	0.2	9.3	1.8	3.7	1.7	3.4
AUG83	7.1	-0.3	-0.6	8.8	4.0	-0.3	2.3	3.4
SEP83	6.0	0.5	-1.2	9.0	2.9	1.9	3.5	8.8
OCT83	5.6	2.2	0.8	9.2	3.3	4.6	2.7	9.1
NOV83	4.8	3.4	10.7	8.6	4.3	4.9	3.7	7.4
DEC83	4.7	3.1	6.6	8.6	4.5	4.1	4.3	-1.7
JAN84	6.4	3.3	4.6	8.4	3.5	5.0	2.0	-6.8
FEB84	4.8	3.9	12.4	8.5	3.7	4.5	3.2	-1.8
MAR84	3.9	3.1	11.5	8.2	3.1	3.7	1.8	-1.8
APR84	3.4	4.8	10.3	8.0	3.9	12.7	3.0	-3.4
MAY84	2.7	5.4	9.3	7.8	3.5	4.5	5.2	0.0
JUN84	3.2	3.6	5.6	8.0	2.8	1.8	0.6	3.3
JUL84	3.4	.	8.7	7.8	2.6	4.3	.	3.3
AUG84	3.2	.	.	8.5	1.7	.	.	0.0
SEP84	3.1	.	.	8.8	0.9	.	.	.
OCT84	3.7	.	.	8.7	1.1	.	.	.
NOV84	3.2	.	.	.	.	.	.	.
DEC84	.	.	.	.	.	.	.	.

TABLE 6
Saskatchewan: Percent Changes From Same Month Last Year

DATE	CPI	REAL WAGES & SALARIES	SHIP-MENTS	UNEMPLOY-MENT RATE	EMPLOY-MENT	REAL RETAIL TRADE	REAL AVERAGE WEEKLY EARNINGS	LEADING INDUSTRY EMPLOYMENT: AGRICULTURE
JAN83	6.9	-2.1	-0.9	7.6	0.0	3.1	2.1	14.3
FEB83	6.4	-2.9	-4.8	7.5	0.5	-1.3	0.6	20.3
MAR83	6.2	0.3	-8.2	7.3	0.2	-1.0	0.9	9.9
APR83	6.7	-6.3	0.8	7.5	0.9	-1.6	-1.1	5.2
MAY83	7.1	-1.7	1.3	7.4	2.6	-4.3	0.1	3.4
JUN83	5.9	2.8	3.2	7.0	3.1	3.2	2.2	-1.1
JUL83	6.9	2.0	9.7	6.6	4.3	4.8	1.1	-4.2
AUG83	6.8	-2.7	11.8	7.4	4.5	4.3	0.3	-2.1
SEP83	6.6	-0.5	8.8	7.4	3.1	4.1	2.3	-10.7
OCT83	6.1	0.2	14.1	7.4	3.1	5.9	0.6	-4.2
NOV83	6.0	1.3	2.5	7.4	2.3	1.9	0.3	3.6
DEC83	5.8	2.9	11.2	7.6	2.1	-1.1	0.3	2.5
JAN84	6.2	3.2	15.4	7.4	2.1	-3.4	0.2	1.2
FEB84	5.5	2.9	18.4	7.6	0.9	-1.6	-0.1	-2.4
MAR84	4.9	-0.3	17.5	8.4	0.5	-0.7	-0.4	2.6
APR84	4.4	3.5	20.0	7.6	0.7	2.4	1.1	12.3
MAY84	4.2	3.1	9.9	8.0	0.2	-3.7	1.5	4.3
JUN84	5.0	-0.0	1.4	8.0	0.2	-5.3	-1.3	4.4
JUL84	4.0	.	11.7	8.0	-1.1	-4.5	.	3.3
AUG84	3.6	.	.	7.9	0.2	.	.	6.3
SEP84	4.0	.	.	8.5	0.2	.	.	.
OCT84	3.3	.	.	7.9	0.5	.	.	.
NOV84	3.7	.	.	.	.	.	.	.
DEC84	.	.	.	.	.	.	.	.

TABLE 7
Alberta: Percent Changes From Same Month Last Year

DATE	CPI	REAL WAGES & SALARIES	SHIP-MENTS	UNEMPLOY-MENT RATE	EMPLOY-MENT	REAL RETAIL TRADE	REAL AVERAGE WEEKLY EARNINGS	LEADING INDUSTRY EMPLOYMENT: CONSTRUCTION
JAN83	8.3	-3.3	-9.1	10.2	-3.6	-5.8	2.0	-29.1
FEB83	7.4	-4.0	-7.3	10.5	-3.9	-8.2	0.3	-28.2
MAR83	6.6	-5.1	-7.0	11.3	-4.9	-1.6	0.8	-29.1
APR83	6.9	-6.3	-2.8	10.7	-2.7	-7.6	0.4	-22.2
MAY83	6.2	-4.8	2.6	10.7	-0.6	-4.8	1.9	-11.8
JUN83	5.8	-4.3	3.0	11.0	-0.6	-0.5	1.7	-13.9
JUL83	5.7	-4.9	2.8	10.9	-1.2	1.4	1.5	-17.7
AUG83	5.3	-4.8	5.7	11.1	-0.4	-1.6	1.3	-21.0
SEP83	4.7	-4.6	4.2	10.6	-0.2	0.4	1.2	-25.4
OCT83	4.2	-5.4	10.3	10.2	0.6	0.1	1.5	-21.2
NOV83	4.2	-4.0	6.4	10.7	0.4	-0.8	1.9	-23.3
DEC83	4.5	-5.4	8.6	11.1	-0.7	0.2	1.1	-24.2
JAN84	4.5	-4.2	15.8	10.6	-0.3	-1.5	1.4	-19.3
FEB84	4.0	-4.5	9.0	10.3	1.0	-1.1	2.1	-12.7
MAR84	3.5	-5.1	9.1	10.7	0.8	-2.9	-0.8	-14.1
APR84	2.7	-2.7	16.6	11.0	-1.4	5.1	-0.5	-23.8
MAY84	2.2	-1.4	6.1	12.0	-1.8	-0.8	0.9	-26.8
JUN84	1.9	-2.9	1.0	11.8	-0.8	-2.3	0.9	-23.2
JUL84	2.5	.	8.2	11.0	0.1	-0.2	.	-20.6
AUG84	2.5	.	.	11.6	-0.2	.	.	-16.3
SEP84	2.8	.	.	12.0	-0.4	.	.	.
OCT84	2.3	.	.	11.8	-0.4	.	.	.
NOV84	2.3	.	.	.	.	.	.	.
DEC84	.	.	.	.	.	.	.	.

TABLE 8
B. C. : Percent Changes From Same Month Last Year

DATE	CPI	REAL WAGES & SALARIES	SHIP-MENTS	UNEMPLOY-MENT RATE	EMPLOY-MENT	REAL RETAIL TRADE	REAL AVERAGE WEEKLY EARNINGS	LEADING INDUSTRY EMPLOYMENT: MANUFACTURING
JAN83	6.8	-6.5	-0.6	14.3	-6.2	-9.9	1.0	-19.8
FEB83	6.6	-7.2	0.1	13.8	-4.0	-9.2	0.9	-12.9
MAR83	6.7	-6.4	-4.4	13.9	-2.9	-5.5	1.0	-11.2
APR83	6.5	-6.4	6.4	13.5	-0.1	-4.9	1.3	-7.8
MAY83	5.1	-2.4	11.3	13.7	-1.1	-1.4	3.0	-11.3
JUN83	5.1	-1.7	15.1	14.0	0.8	2.1	3.1	-3.8
JUL83	5.8	-1.2	22.4	13.7	1.4	0.8	1.9	-1.3
AUG83	5.2	6.0	13.1	13.9	0.8	0.6	2.7	-0.6
SEP83	5.0	1.2	14.3	13.5	1.8	2.7	1.9	0.0
OCT83	4.7	-2.0	18.2	13.6	0.1	4.5	0.5	-2.0
NOV83	4.3	-4.9	6.1	13.9	0.7	-1.2	-0.0	7.7
DEC83	4.7	-2.2	11.7	13.7	2.1	3.9	0.3	9.3
JAN84	4.8	-4.1	12.3	13.6	1.4	2.5	-2.4	10.9
FEB84	4.8	-6.3	-2.9	14.5	-0.4	1.1	-3.3	1.3
MAR84	4.4	-8.9	-10.5	14.4	-1.3	0.8	-3.2	-4.0
APR84	4.2	-4.9	-3.1	15.1	-1.9	2.2	-1.5	-6.5
MAY84	4.6	-4.8	5.5	15.6	-1.6	-1.9	-2.3	-3.4
JUN84	3.9	-4.3	-1.0	15.7	-1.7	0.1	-1.4	-5.9
JUL84	3.7	.	6.0	14.7	-0.2	0.7	.	-4.5
AUG84	3.7	.	.	14.4	0.9	.	.	-1.9
SEP84	3.7	.	.	14.8	1.0	.	.	.
OCT84	3.6	.	.	15.1	2.2	.	.	.
NOV84	3.8	.	.	.	.	.	.	.
DEC84	.	.	.	.	.	.	.	.

Note

* All data presented here were extracted from the CANSIM, University Base and processed using the Statistical Analysis System.

APPENDIX: DATA SOURCES

		Series No. on CANSIM
Average Weekly Earnings,	Alberta	D704160
	British Columbia	D704316
	Canada	D700169
	Manitoba	D704010
	Saskatchewan	D704060
Bank Rate		B14006
Change in Stocks		D40613
Composite Leading Index,	Canada	D99475
	U.S.A.	D99486
CPI,	Calgary	D133160
	Edmonton	D132953
	Regina	D132539
	Saskatoon	D132746
	Total	D130000
	Vancouver	D133367
	Winnipeg	D132331
Degree of Utilization of Production Capacities in Manufacturing		B60003
Employment,	Alberta	D769068
	British Columbia	D769231
	Canada	D767608
	Manitoba	D768792
	Saskatchewan	D768930
Exports		D40618
GNE		D40593
Help Wanted Index		Canadian Statistical Review
Real Wages and Salaries,	Alberta	D5245/D132953
	British Columbia	D5246/D133367
	Manitoba	D5243/D132331
	Saskatchewan	D5244/D132539
Retail Trade,	Alberta	D651171
	British Columbia	D651347
	Canada	D650087
	Manitoba	D650907
	Saskatchewan	D651083

		Series No. on CANSIM
Shipments,	Alberta	D310702
	British Columbia	D310723
	Canada	D310030
	Manitoba	D310660
	Saskatchewan	D310681
Unemployment Rate,	Alberta	D769070
	British Columbia	D769233
	Canada	D767611
	Manitoba	D768794
	Saskatchewan	D768932
Wheat Board Price,	Alberta	D239123
	Manitoba	D239117
	Saskatchewan	D239120
Housing Starts,	Alberta	D845669
	British Columbia	D845670
	Canada	D4945
	Manitoba	D845667
	Saskatchewan	D845668
Imports		D40620
Investment,	Total	D40601
	Public	D40602
	Residential	D40608
	Non-Residential	D40609
	Machinery and Equipment	D40610
Labour Force,	Alberta	D769067
	British Columbia	D769230
	Canada	D767606
	Manitoba	D768791
	Saskatchewan	D768929
Leading Industry Employment,	Alberta	D771553
	British Columbia	D771562
	Manitoba	D771532
	Saskatchewan	D770343
M1		B1627
M1A		B1624
M2		B1630
M3		B1628
Private Consumption		D40594

		Series No. on CANSIM
Public Consumption		D40600
Real Average Weekly Earnings,	Alberta	D704160/D132953
	British Columbia	D704316/D133367
	Canada	D700169/D130000
	Manitoba	D704010/D132331
	Saskatchewan	D704060/D132539

WESTERN ECONOMIC REVIEW CUMULATIVE INDEX

From Volume 1, to Volume 3, No. 3.
January, 1982 to September, 1984

Articles which appeared in back issues of the Western Economic Review are listed below. Copies of back issues are available at $8.00 per issue.

No. 3
A Framework for the Development of Industrial Policy in Canada
Universality and Restraint in Income Security
Enhancing Employment and Income Opportunities in Agriculturally Based Regions
Fiscal Federalism - A Primer

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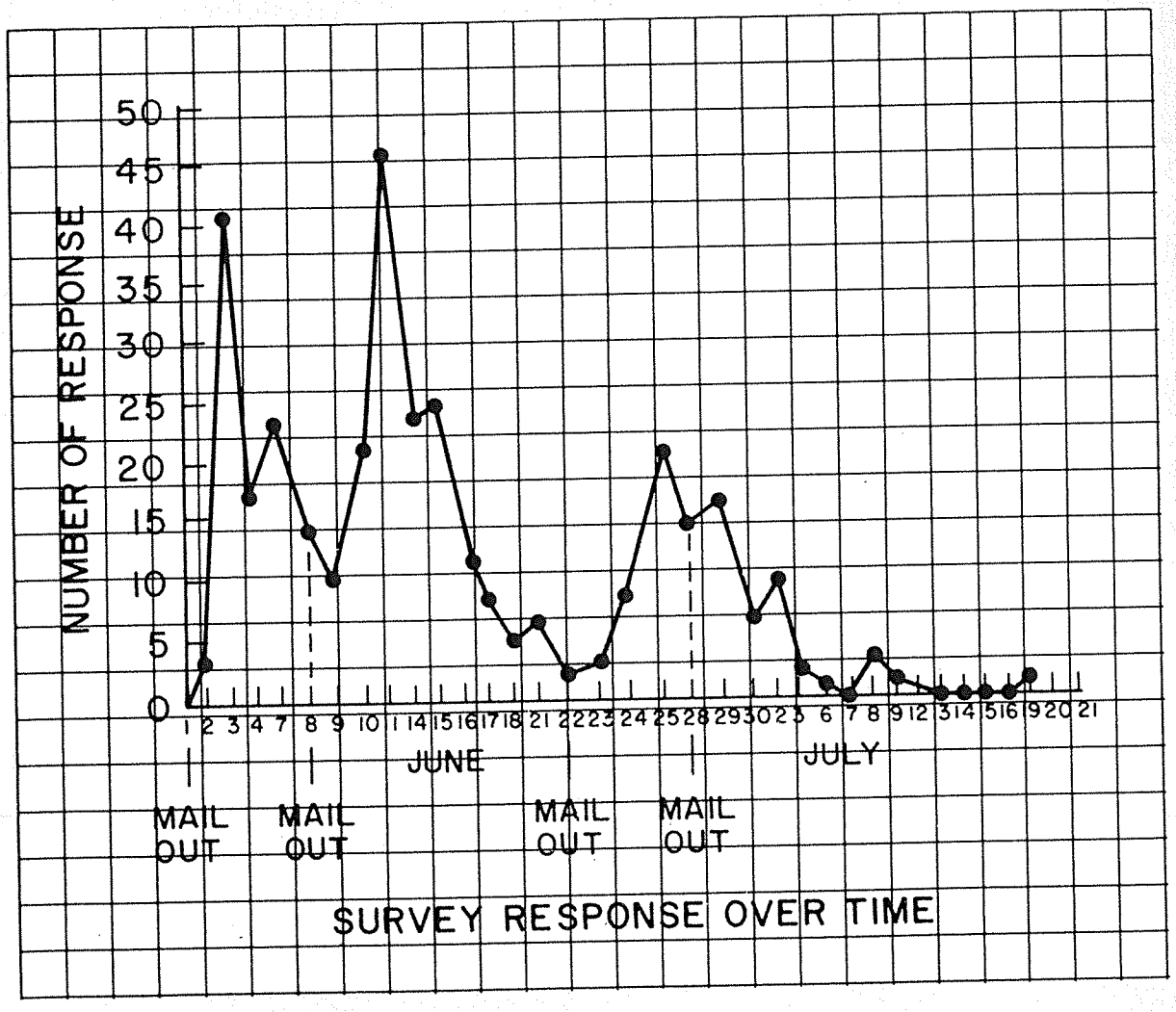
Except where noted, all tables, charts and figures are produced by the Computer Assisted Socio-Economic Data Base (CASED) extracting time-series from the CANSIM University Base (Statistics Canada). The Statistical Analysis System (SAS) is also used to prepare the basic tables and graphs.

Survey Research Manual



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