

*Number 13/March 1993*

**SUSTAINABLE FISCAL POLICY IN ALBERTA**

**A SUMMARY**

*Bev Dahlby  
Department of Economics  
University of Alberta*

## INTRODUCTION

This paper summarizes a longer report which tries to answer three questions:

- Is Alberta's current fiscal policy sustainable?
- If it is not sustainable, what is the magnitude of the fiscal adjustment which is required to achieve a sustainable fiscal policy?
- Has Alberta's fiscal policy become more or less sustainable over time?

In recent years, the International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD) have utilized the concept of sustainable fiscal policy to analyze the fiscal policies of the major western countries. A 1990 IMF study, which evaluated fiscal policies over a thirty year time horizon, indicated that fiscal policies in Canada and the United States were sustainable while those in

Italy and Japan were not sustainable. Italy's fiscal policy was not sustainable because of its current imbalance of revenues and expenditures. Japan's fiscal policy was not sustainable because of its rapidly aging population.

Alberta's fiscal problems are in some respects a combination of the problems faced by Italy and Japan. Like Italy, Alberta has a current imbalance between revenues and expenditures. Like Japan, Alberta faces a major structural problem - the prospect of a long-term decline in non-renewable resource revenues. The concept of sustainable fiscal policy should help policy makers in dealing with Alberta's long-term fiscal options. It complements the more conventional analysis of deficit and debt ratios which provides information on the short-term implications of fiscal choices.

## SUSTAINABLE FISCAL POLICY

A government's fiscal policy is sustainable if the present value its anticipated revenue stream (excluding interest income) exceeds the present value of its anticipated future expenditures (excluding interest payments) by an amount which exceeds its current net debt. The condition for sustainability reflects the fact that a government's debt cannot be financed indefinitely by issuing new debt. Another way of expressing this condition is that the anticipated growth rate of the public debt must be less than the rate of interest over the long-term. Thus, it is the growth rate of the public debt, and not the size of the public debt, which is crucial for determining the sustainability of fiscal policy. If a government's fiscal policy is

unsustainable, then sooner or later, lenders will demand a policy change so that the debt is covered (in present value terms) by an excess of revenue over program expenditures.

To clarify the relationship between sustainable fiscal policy and government deficits, it is important to distinguish between two types of deficits. The *overall deficit* is the difference between total expenditures, including interest payments on the public debt, and total revenue, including interest income on financial assets held by a government. The *primary deficit* is the difference between expenditures and revenues, excluding all interest payments and receipts. Fiscal sustainability means that a government must run primary surpluses-if not in the short-term, then in the more distant future- which are large enough to cover its current net debt. A government can run an overall deficit for an indefinite period of time as long as it is anticipated that it will eventually have primary surpluses which are large enough to cover the net debt. An example of a sustainable fiscal policy where there is always an overall deficit is a policy of maintaining a constant debt to Gross Domestic Product (GDP) ratio. Under such a policy, the debt must grow at the same

rate as GDP. To accomplish this, the government must have an overall deficit. Of course, the fact that a government can have an overall deficit for an indefinite period of time does not mean that this is a desirable policy.

The following aspects of the concept of sustainable fiscal policy should be emphasized:

- **The sustainability of the fiscal policy is a long-term concept.**  
Evaluating fiscal policy from a long-term perspective is especially important in Alberta because non-renewable resource revenue will probably decline relative to the rest of the economy.
- **The sustainability of any fiscal policy is always a matter of judgement.**  
There is considerable uncertainty regarding the future trends in revenues, expenditures, and interest rates.
- **There are many different fiscal policies which are sustainable.**  
The concept of sustainable fiscal policy does not indicate which is the "best" sustainable fiscal policy.
- **A government with an unsustainable fiscal policy is on a "fiscal adjustment treadmill".** If it postpones the fiscal adjustment, then its debt will increase, and the magnitude of the fiscal adjustment that will eventually be required will increase.

The concept of sustainable fiscal policy does not indicate how rapidly a should a government adjust its fiscal policy or whether the adjustment take the form of an expenditure cut or a tax increase.

#### ALBERTA'S FISCAL PERFORMANCE, 1968 - 1992

A review of Alberta's fiscal performance will be presented before considering whether Alberta's fiscal policy is sustainable or whether a fiscal adjustment is required. An important feature of the data that are presented below is that they have been consolidated to

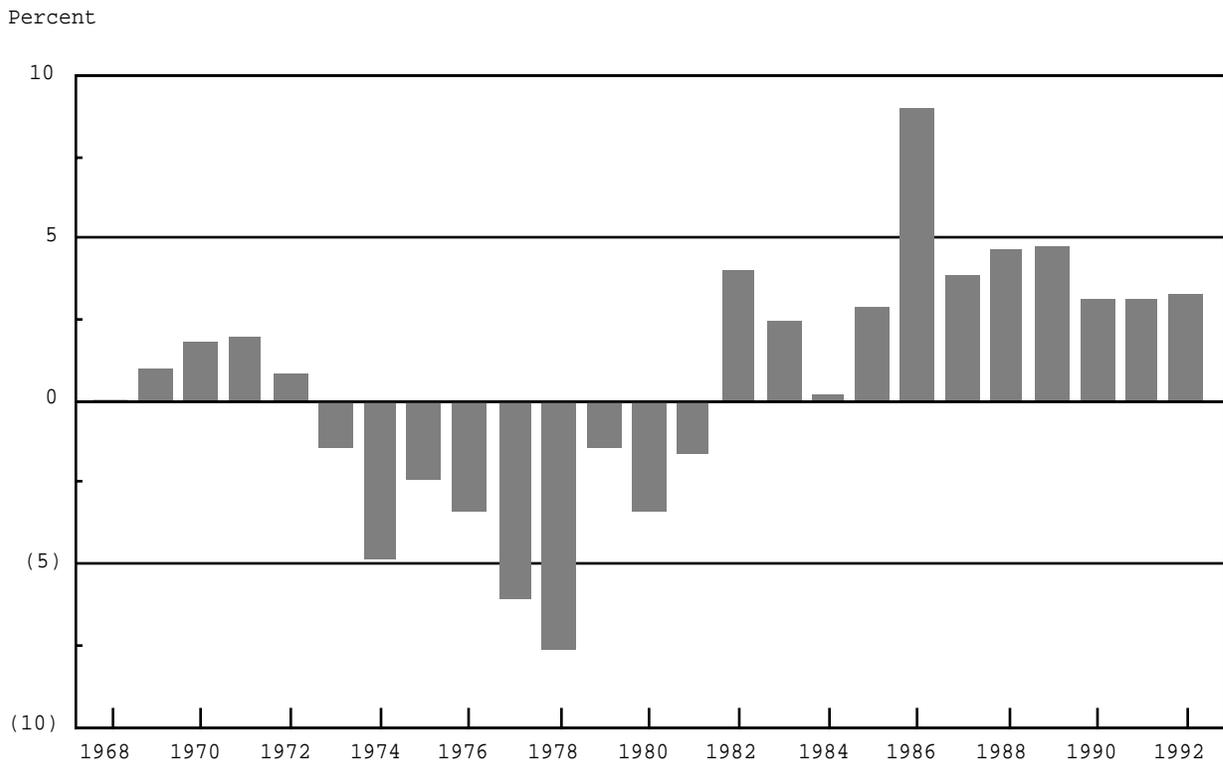
eliminate the transfers to and from the Alberta Heritage Savings Trust Fund and the Capital Fund. This consolidation

helps to clarify the trends in the Province's financial position.

**Figure 1** shows the trend in the Province's primary deficit as a percentage of GDP. From 1968 to 1973, the Province had, on average, a primary deficit of 0.65 percent of GDP. Over the period 1974-

1981, the Province had primary surpluses which averaged 3.8 percent of GDP. From 1982 to 1992, the Province again incurred primary deficits which averaged 3.7 percent of GDP.

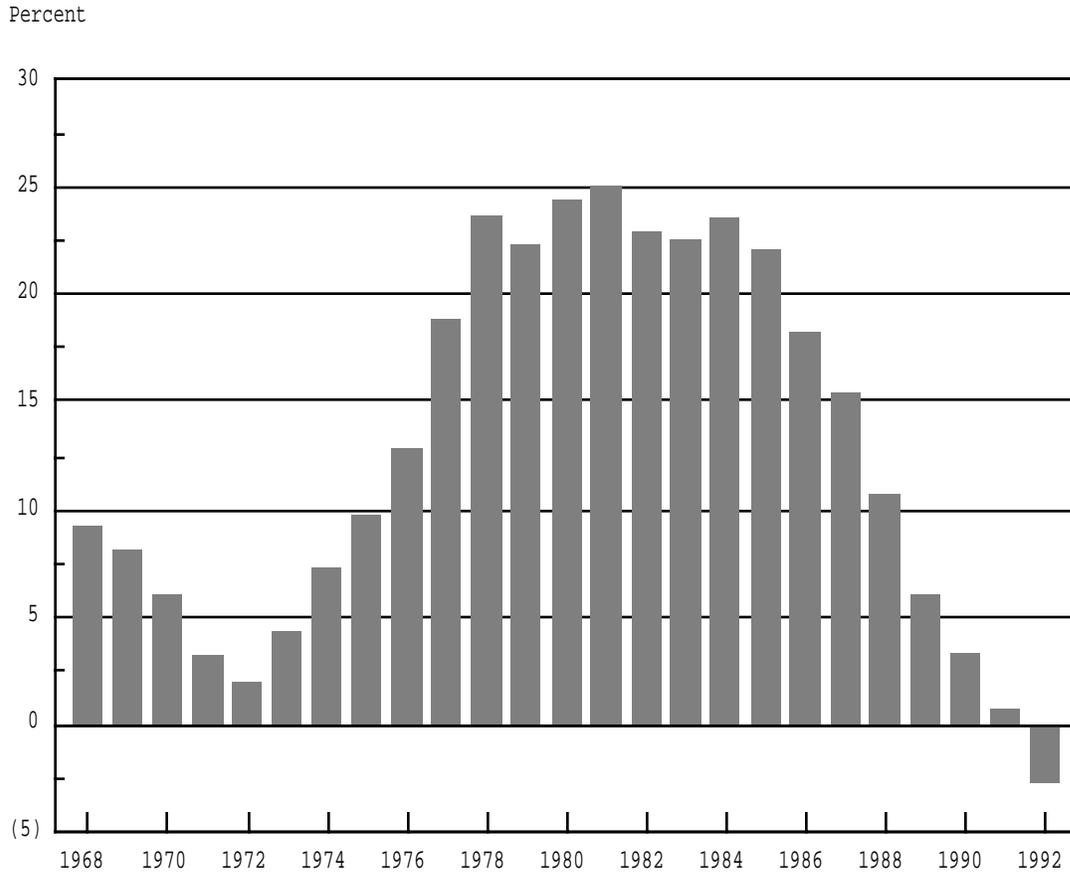
**Figure 1**  
**Primary Deficits in Alberta**  
**(As a Percentage of GDP)**



As **Figure 2** indicates, the trend in the Province's net financial assets (which includes the value of the financial assets held in the Alberta Heritage Savings Trust Fund) reflects the trend in its primary deficits. In 1968, the Province's net financial assets were positive and equal to 9.3 percent of GDP. During the period 1968-72, net financial assets declined as a result of the primary deficits incurred by the Province. From 1973 to 1981, net financial assets increased sharply and peaked at 25.0 percent of GDP. From 1981 to 1991 net financial assets declined at an

unsustainable rate of 27.4 percent per annum.

Figure 2  
Alberta's Net Financial Assets  
(As a Percentage of GDP)



The Province's current fiscal position is more tenuous than it was in the 1968-73 period because, in relation to GDP, non-renewable resource revenues and federal transfers are both one percentage point lower and program expenditures are almost two percentage points higher while taxes are only one percentage point higher. Furthermore, the Province has become a net debtor, while in the pre-1974 period it had positive net financial assets. The problem with the current fiscal position is even more apparent when it is recognized that the pre-1974 fiscal policy would not have been sustainable in the absence of the post-1974 energy price increases.

#### A FISCAL ADJUSTMENT INDEX

A Fiscal Adjustment Index can be defined to measure the magnitude of the fiscal adjustment (as a percentage of GDP) which a government has to make in order to attain a sustainable fiscal policy. **Table 1** shows the Fiscal Adjustment Index in 1986, 1989, and 1992, for three alternative scenarios concerning the growth rate of real non-renewable resource revenues. Other calculations indicate that the value of the Fiscal Adjustment Index is not greatly affected by varying the assumed real interest rate or the assumed real GDP growth

rate because Alberta's net debt is at the present time relatively low.

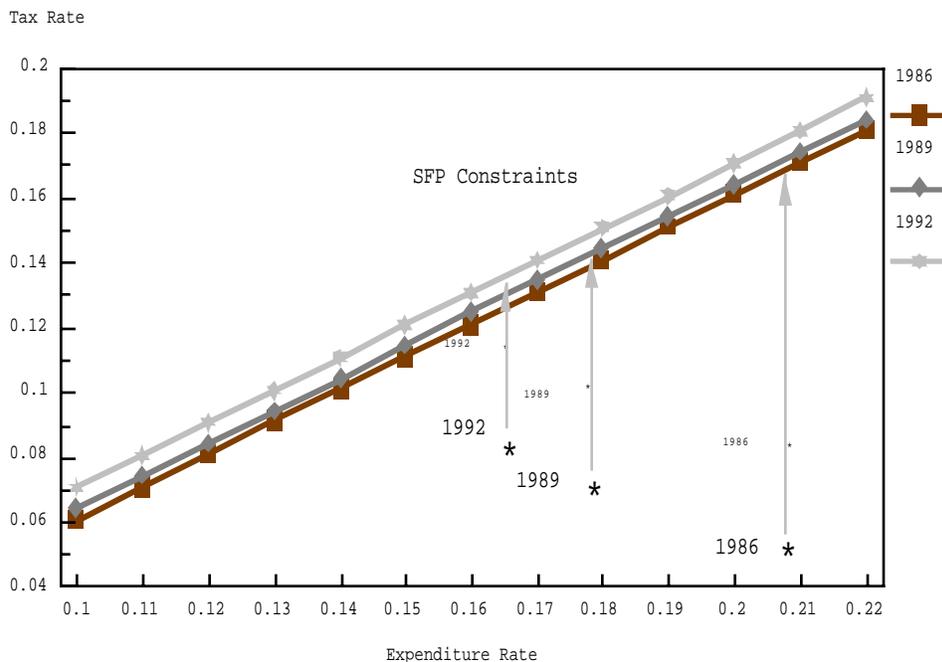
**Figure 3** shows the Province's expenditure rate and the tax rate, expressed as a proportion of GDP, as well as the combinations of the expenditure rate and the tax rate which represent sustainable fiscal policies. These lines, which are referred to as the *Sustainable Fiscal Policy Constraints*, shifted up from 1986 to 1992 because of the decline in the government's net financial assets. The Fiscal Adjustment Indices for each year are given by the lengths of the arrows.

**Table 1**  
**The Fiscal Adjustment Index for Alberta**

The Growth Rate of Real Non-Renewable Resource Revenues (Percent)	Fiscal Adjustment Index (Percent of GDP)		
	1986	1989	1992
-2.00	12.06	7.64	5.60
0.00	11.61	7.24	5.29
2.00	10.44	6.21	4.49

Notes: The growth rate of real GDP was assumed to be 3.0 percent and the real interest rate was assumed to be 4.5 percent.

**Figure 3**  
**Sustainable Fiscal Policy Constraints**



## CONCLUSIONS

about half as large as it was in 1986. In other words, about half of the fiscal adjustment to lower energy prices has been accomplished.

- **The Province's fiscal policy since 1986 has not been sustainable.**

An average annual growth rate for real non-renewable resource revenues of 3.8 percent in perpetuity would be required for the current fiscal policy to be sustainable. This growth rate does not seem plausible given the decline in conventional oil production and the eventual decline in natural gas reserves.

- **The fiscal adjustment required to achieve a sustainable fiscal policy is very large.**

Based on the assumption that non-renewable resource revenues remain constant in real terms, a \$4.06 billion expenditure reduction (or tax increase) would be required in 1992 to achieve a sustainable fiscal policy. This fiscal adjustment is equivalent to 5.29 per cent of GDP, and is larger, as a percentage of GDP, than the fiscal adjustments that would be required

for Italy or Japan to achieve sustainable fiscal policy. In order to have a sustainable fiscal policy in 1992, Alberta should have an overall surplus of \$1.42 billion, instead of a deficit of \$2.64 billion, and be saving about 60 percent of its non-renewable resource revenues. About 40 percent of the required fiscal adjustment is due to the structural imbalance in the Province's finances which is caused by the anticipated long-term decline in resource revenues relative to the other revenues and expenditures.

- **Since 1986, the Province's fiscal policy has moved closer to a sustainable fiscal policy.** As a result of expenditure restraint and, to a lesser extent,

increased tax effort, the magnitude of the required fiscal adjustment in 1992 is