

Views and Comments/Commentaires

Was the 1979 Federal Budget Deficit Too Large? A Comment MUNIR A. SHEIKH and PATRICK GRADY*/Fiscal Policy Division, Department of Finance

INTRODUCTION

In a recent issue of *Canadian Public Policy – Analyse de Politiques*, J. Schaafsma (1980:556–559) examined the magnitude of the federal budget deficit for 1979. The four main points which emerge from his analysis are:

- (1) There was an 11 per cent gap in 1979 between actual and full employment GNE.¹
- (2) The income elasticity of federal revenues, relative to federal expenditures, was 2.02.
- (3) The federal budget balance, calculated at full employment, indicated a small surplus in 1979.
- (4) The 1979 budget surplus was about right using the criterion of 'high-employment budget norm.' This criterion 'requires that the government set tax and expenditure structures which will generate a modest surplus for debt retirement when national income is at its full-employment level. A corollary of this norm is that the tax and expenditure structures should not be altered as the economy moves through the business cycle.'

In this comment, we identify a number of problems with Schaafsma's empirical analysis and go on to argue that these problems are sufficiently important to render his estimates of the magnitude of the full-employment budget surplus unreliable and thus call into question the analytical basis of his evaluation of the stance of fiscal policy in 1979. We close with a few general observations on criteria for evaluating fiscal stance.

FULL-EMPLOYMENT GNE

Schaafsma calculates full-employment GNE by multiplying an old Department of Finance estimate of benchmark GNE for 1979 by 1.03. According to the author, 'a multiple of 1.03 was chosen since in years of known high employment (1956, 1966, 1973) actual real GNE averaged about 3 per cent above benchmark real GNE.' Schaafsma's estimates of full employment GNE may not be appropriate for calculating the full-employment budget surplus for at least three reasons.

- (1) His definition of full employment could perhaps be more correctly characterized as 'overly full employment.' By using it to standardize the budget balance, he is in effect implying that it would be possible to operate the economy on a sustained basis at a level that had previously only been attained at the peak of the business cycle. In our view this could not be done without generating inflationary pressures which would eventually undermine the level of activity. On the other hand, if Schaafsma does not mean to imply that it would be possible to sustain output at such a high level, it is not clear what would be the relevance of his budget norm specified as it is for a level of activity much higher than average. In contrast, the Department of Finance series for benchmark GNE only involves a smoothing of cyclical

* Views expressed in this paper are personal and should not be attributed to the Department of Finance.

¹ Schaafsma uses the full-employment and high-employment terminology interchangeably.

fluctuations and thus represents a level of activity that could be achieved on average over the business cycle.²

(2) Since the appearance of the old Finance benchmark GNE numbers, considerable evidence has appeared to suggest a marked decline in the average trend productivity growth of labour. Productivity growth over the period 1974–79 averaged only .5 per cent per year compared to 2.7 per cent between 1947 and 1973. This would suggest that the outdated Finance numbers cited by Schaafsma overestimate benchmark GNE. The Department of Finance's latest estimates of benchmark GNE, which are used to calculate cyclically-adjusted budget balances³ (1980 and 1981 issues of the *Economic Review*), are based on the view that a sharp decline in trend productivity growth occurred after 1974. This view is supported by the Economic Council of Canada (1979:10) which estimates trend productivity growth of 1.3 per cent for this period and by the Conference Board of Canada in E.A. Carmichael's study (1979:40–44) which estimates trend productivity growth to be 1.5 per cent. The productivity assumption underlying Schaafsma's estimates is simply out of line with the current consensus in favour of the view that trend productivity growth has declined significantly in the late 1970s in both Canada and the US.

(3) Again, the consensus seems to be that the estimate of the equilibrium unemployment rate, however defined, has moved upwards significantly since the appearance of the old Finance benchmark GNE numbers. The Economic Council of Canada (1979:14) uses a value of 6 per cent for the full employment rate of unemployment for the late 1970s, and the Conference Board in Carmichael's (1979:41) study uses a value of 6.4 per cent for 1978. The Department of Finance's revised estimates of the cyclically-adjusted budget balances are based on a similar assumption regarding the aggregate cyclically-adjusted unemployment rate. This development also indicates that the outdated Finance benchmark GNE estimates which Schaafsma has used are on the high side.

For all these reasons, Schaafsma's estimates of full-employment GNE can be considered to be too high. A rough estimate would suggest that an acknowledgement of the factors mentioned, using the range of estimates provided above for trend productivity growth and the equilibrium rate of unemployment, would yield an estimate of the GNE gap in the 2 to 5 per cent range instead of Schaafsma's estimate of 11 per cent.

INCOME ELASTICITY OF FEDERAL REVENUES AND EXPENDITURES

Schaafsma estimates an equation in the form $X = a + b*Y$, where X is the percentage change in the ratio of revenues to expenditures and Y is the percentage change in the ratio of actual to full employment GNE. The value of 'b' is estimated to be 2.02. Our own analysis suggests that this estimate is on the high side.⁴ More importantly, we have a number of reservations

- 2 These benchmark values are estimates of GNE which would prevail if the economy operated at an average level of economic activity, i.e., the actual unemployment rate was equal to the cyclically-adjusted unemployment rate. This latter concept calculates the unemployment rate which would prevail if the adult male unemployment rate equalled an historical average. If the natural rate of unemployment was defined to be the non-accelerating inflation rate of unemployment which is also the long-term equilibrium unemployment rate, the cyclically-adjusted unemployment rate thus calculated would be even lower than this natural rate since the underlying inflation rate increased significantly in the late 1970s relative to the earlier period.
- 3 These are the balances which would occur if the economy were to operate at an average level of activity. They are adjusted to remove estimates of the automatic response of revenues and unemployment insurance benefits to cyclical changes in the economy.
- 4 An alternative estimate of 'b' would be 1.6. It is obtained by taking the algebraic difference between the estimate of the income elasticity of federal revenues of 1.2 found in the 1979 *Economic Review* of the Department of Finance (1979:85) and our estimate of the income elasticity of federal expenditures of -.4. Details on the calculation of these elasticities are available from the authors on request.

concerning Schaafsma's methodology.

(1) It is hard to see how a simplistic equation such as Schaafsma's can adequately capture the complexities of the cyclical sensitivity of government revenues and expenditures. The assumption implicitly underlying the specification is, with an important exception which we will be covering below, that the structure of revenues and expenditures is the same over the whole sample period. In making his estimate of the full employment budget balance for 1979 Schaafsma takes this assumption one step further and assumes that the elasticity based on this structure is still applicable in 1979. Given the number of significant changes that have occurred, we regard this assumption to be inappropriate.

(2) The only way that Schaafsma attempts to allow for changed structures is by dropping, from his sample, years in which the structure clearly changed significantly. In doing this, he is assuming that after the new structure is in place the elasticity of the system will still be the same regardless of the changes. This also does not appear to us to be appropriate.

(3) The criterion that Schaafsma used in deciding which years during the 1953–1978 period did not involve 'appreciable discretionary changes in fiscal policy' is also not clear to us. Even though he eliminated seventeen of the twenty-six years from this period from his sample, some of the years he included were years in which there were, in our view, significant discretionary tax changes. These years were 1965, 1967–68 and 1973.⁵ Furthermore, without going into the specific details of changes in expenditure policy (the reasons for which should become clear later in the discussion) and relying instead on the simple criterion that a significant divergence of the growth rates of expenditures, cyclically adjusted for changes in unemployment insurance benefits, and GNE indicates a discretionary change in expenditure policy, the years 1957, 1963, and 1967 would be candidates for elimination from Schaafsma's sample on this basis. If all these years, in addition to those selected by Schaafsma, were eliminated the sample period would be reduced to only three years, 1956, 1961 and 1970. However, Schaafsma excludes 1964 from his sample period which he should not have since only relatively minor tax and expenditure changes occurred in that year.⁶ In general, the simplistic type of approach followed by Schaafsma (of eliminating years from the sample period because of the impact of discretionary changes) is not adequate since it does not take into account on a year by year basis the dynamic impacts of budgetary changes. In particular, it ignores the inconvenient facts that a budget measure may have its principal impact in years subsequent to that in which the measure was first enacted, that the impacts of other measures may gradually build up over time, and that some measures may be temporary in nature and their automatic lapsing would indicate a discretionary change in policy.

(4) The author argues⁷ that 'federal government expenditures (in general, and not just unemployment insurance benefits) are (negatively) sensitive to the level of economic activity, for example, federal cost sharing in provincial welfare programs.' This claim is not substantiated

5 Basic personal income tax was reduced in 1965 by the lesser of 5% or \$300 effective as of July 1 and the deduction of union and professional membership dues was allowed from the tax base as of January 1. Certain excise taxes and duties were raised in December 1967. In 1968 a surtax at the rate of 3% was imposed on basic personal income tax and corporate taxable income as of January 1. In addition, accelerated corporate tax payments made a significant contribution to revenues in 1968. In 1973 the level of personal exemptions was increased as of January 1 and basic federal tax payable was reduced by 5% with a minimum reduction of \$100 and a maximum reduction of \$500. Selected sales and excise taxes were also reduced in February 1973.

6 The only significant change introduced in the March 1964 budget was to make children aged 16 and 17 eligible to receive family allowances. The total cost of this measure was expected to be \$27 million for 1964 (Minister of Finance, 1964:15) which accounts for most of the expected increase in the 1964 budgetary deficit of \$35 million as a result of discretionary changes (Minister of Finance, 1964:16).

7 Insertions in parentheses are ours.

and it is doubtful that this factor can have any significant effect in determining the value of the 'b' coefficient.⁸

FULL-EMPLOYMENT BUDGET SURPLUS

If data on full-employment GNE and the elasticity coefficient were re-estimated based on the comments made above, it is quite obvious that the federal budget, at full employment, would indicate a significant deficit. Using Schaafsma's criterion, this would mean an inappropriate stance of fiscal policy. However, this type of criterion for fiscal policy is rather arbitrary and does not take into account many important factors in prescribing the appropriate stance for fiscal policy.

CRITERIA FOR EVALUATING THE FISCAL STANCE

According to Schaafsma a full employment budget norm is a compromise between an annual budget balance norm, which imposes fiscal discipline, and a functional finance norm, which judges a budget balance only in terms of its contribution to economic stabilization. This is of course true as far as it goes, but it overlooks some major theoretical problems with a full employment budget norm which would make it a rather unsatisfactory guide for policy.

- (1) Even though an annually balanced budget may impose fiscal discipline on a government in the sense that the government cannot spend without first raising revenues, it is more difficult to see how a hypothetical full employment balanced budget norm could impose similar discipline. Such a concept is too vague and rests on too many assumptions to make it operational. Which estimate of the high employment level of output should the government select to do its calculations? Should this high employment level of output be adjusted to reflect changes in such key underlying economic variables as trend productivity growth and the natural rate of unemployment? These are some of the questions for which answers would be required. Unfortunately the answers are not straightforward.⁹
- (2) The criterion dictates a passive fiscal policy and rules out discretionary fiscal action to counter fluctuations in private sector savings and investment and in external demand.
- (3) The only objective underlying the suggested criterion is high employment. This ignores other policy objectives such as price stability, balance of payments equilibrium, economic growth and the distribution of income which are also important from a welfare point of view.
- (4) This criterion ignores the complexities introduced by the fact that inflation, through its impact on interest rates and public debt charges, distorts the meaning of the deficit as an indicator of fiscal stimulus. Preliminary illustrative estimates of an inflation-adjustment to budget balances are available in the 1981 issue of the *Economic Review*.
- (5) Finally, the federal government is not the only government in the country which affects the level of economic activity. In 1979, federal expenditures only accounted for 40 per cent of total government expenditures. Even if one accepts the basic logic of Schaafsma's criterion,

⁸ Details on these programs are available from the authors on request.

⁹ To quote from the 1978 *Economic Review* of the Department of Finance (1978:85–86), 'The cyclically-adjusted budget balances should be viewed as a rough indicator. For any year there may be considerable uncertainty as to the precise level of GNP and unemployment which should be taken to represent average conditions. The revenue which the tax system would yield at some level of GNP different from the actual may be estimated in a variety of ways, each of which gives somewhat different results'.

it is the size of the budget deficit of the total government sector which affects economic activity and hence should be the basis of this criterion.

REFERENCES

- Carmichael, E.A. (1979) *Reassessing Canada's Potential Economic Growth* (The Conference Board in Canada)
- Department of Finance (1978) *Economic Review* (Ottawa)
- (1979) *Economic Review* (Ottawa)
- (1980) *Economic Review* (Ottawa)
- (1981) *Economic Review* (Ottawa)
- Economic Council of Canada (1979) *Sixteenth Annual Review* (Ottawa)
- Minister of Finance (1964) 'Budget Speech in the House of Commons' (Ottawa: Queen's Printer)
- Schaafsma, J. (1980) 'Was the 1979 Federal Budget Deficit Too Large?' *Canadian Public Policy – Analyse de Politiques*, Summer, VI:3:556–559.