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Effects of the GST in Australia, Canada and New Zealand**

by

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Abstract

Australia, Canada and New Zealand have a multitude of cultural and economic characteristics in common that facilitates interesting comparisons between them. This short note takes advantage of this shared heritage by providing a brief empirical comparison of the macroeconomic effects of the introduction of the goods and services tax in the three countries. We consider summary data on some selected macroeconomic variables, including various neutrality measures, aggregate consumer price changes, economic growth effects, tax yield effects, and current account balance effects. It is concluded that not only was the GST highly successful in raising tax revenues, but it was also significant in terms of growth effects, price effects, current account effects and the effect on the budget balance.

Key Words: Goods and services tax; macroeconomic impact; tax policy

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1. INTRODUCTION

The limited purpose of this short note is to present a comparative empirical evaluation of some of the more important macroeconomic effects of the introduction of the Goods and Services Tax (GST) in Australia, Canada and New Zealand. Prior to the introduction of the GST in each of the three countries, considerable public debate occurred concerning the probable costs and benefits of the introduction of the GST, including the nature and extent of any efficiency gains and the nature and magnitude of the macroeconomic effects. Anticipated effects included changes in macroeconomic variables such as economic growth, the general price level, government revenue, and the current account balance. This note attempts to compare and contrast some of the observed macroeconomic effects of the GST package in each of the three countries in question.

The note itself is divided into three main sections. Section 2 provides a synoptic description of the implementation of the GST in the three countries. Section 3 examines the observed macroeconomic effects of the introduction of the GST, including various neutrality measures, aggregate consumer price changes, economic growth effects, revenue effects, and current account balance effects. The note concludes with a brief recapitulation of the major findings in section 4.

2. INSTITUTIONAL BACKGROUND

Australia, Canada and New Zealand have many common cultural and economic features. All share a British colonial heritage with similar political institutions, a relatively sparse population and an historical dependence on commodity exports. In the late twentieth century all three countries were undergoing a significant economic transition, with substantial public sector reform and the service sector growing rapidly as a proportion of GDP. Moreover, significant similarities existed in the structure of the taxation systems of the three nations (see, for example, Commonwealth Treasury, 2003). Since the 1930s all had had a wholesale sales tax of some form, whose base was being eroded through economic development and technological change. The Manufacturer's Sales Tax (MST) in Canada and the equivalent Wholesale Sales Tax (WST) in Australia and New Zealand shared a long history of criticism. All three taxes had been introduced following the First World War, based on a similar structure, base, rates and legislative rules. In all three countries this old tax was replaced as part of the transition to the GST.

The GST came into effect in New Zealand on 1 October 1986 (see, for instance, Bollard, 1992; Kelsey, 1996; Walker, 1989; and Stephens, 1991). It was designed to align with existing international basic Value Added Tax (VAT) principles. Businesses (and other persons) engaging in a "taxable" activity were required to register for the tax. In essence, firms charged the tax at the set rate on

sales and supplies and paid it to the national government taxation office. Certain products were tax exempt. Firms that charged the tax or bought zero-rated supplies were able to claim a refund for the GST paid on its inputs. Exemption of supplies or purchases made by unregistered persons could not be obtained. New Zealand's scheme was different to many existing schemes of VAT in Europe at the time, in that it only had a single rate of 10%. It also contained extremely limited exemptions. Financial services and residential accommodation were exempted, and exported goods and services and sales of businesses were zero-rated. In 1989, the GST was increased to 12.5%, with income tax being restructured to two rates (24% and 33%) and the top company tax rate coming down to 28% (but later increased to 33%). It had been argued by the (then) Labour government that the redistributive effects of the GST could be offset by transfer payments and lower income tax.

GST came into effect in Canada on 1 January 1991 at a rate of 15% and replaced the 13.5% Manufacturer's Sales Tax (MST) which had been in existence since 1924. The MST had been criticized over the years for many reasons, including its complexity. It was subject to more than 22,000 special provisions and administrative arrangements. In common with the GST in New Zealand, Canada's GST is a multi-stage VAT levied on a broad range of goods and services (Brooks, 1992). Firms are entitled to an input tax credit on the GST they pay for the goods

and services they purchase as inputs. The GST applies to a broad range of goods and services, and does not apply to zero-rated or exempt items. In Canada, zero-rated items include basic groceries, most medical services, prescription drugs and residential rents. Intended to offset the regressive impact of broader taxation base on low income Canadians, the GST credit (a refundable income tax credit), was introduced along with the tax.

In Australia the GST was implemented on 1 July 2000, following several decades of discussion in political circles (Quiggin, 1998), including the 1975 Asprey Committee and 1975 Mathew Committee both recommending the introduction of a VAT system at a rate of 5%, the 1979 proposal by the (then) Treasurer John Howard for a Retail Sales Tax (RST), the 1985 Hawke Labor Government National Tax Summit, the 1993 Liberal Party *Fightback* package advocated by Dr John Hewson, and the 1996 Tax Summit of the Australian Council of Social Services (ACOSS) (see, for example, Head, 1986; Smith, 1999 and Smith, 2001).

Table 1 provides a brief summary of the main features of the GST in Australia, Canada, and New Zealand.

Table 1. Process of GST Implementation

	Australia	New Zealand	Canada
Parliamentary Process	Rejected at election 1993. Accepted at election 1999.	Imposed without election.	Imposed without election and through appointment of senators.
Year of introduction	2000	1986 1989 (raised to 12.5%)	1991
Rate(s)	10%	10% initially then 12.5%	15%
Threshold requirement for registration	\$50,000	\$20,000	\$50,000
Exemptions	Food Education Health Financial supplies	Limited	Financial supplies Owner-occupied housing

Sources: Quiggin, 1998; Kelsey, 1996 and Brooks 1992.

It is evident from Table 1 that Canada had the highest effective rate of GST at 15%, New Zealand the second highest rate at 12.5%, with Australia on the lowest rate at 10%. Moreover, the GST base was widest in New Zealand and most restrictive in Australia.

3. COMPARATIVE MACROECONOMIC IMPACT OF THE GST

Neutrality

The neutrality of any tax instrument between different goods and services, factors of production, and sectors of the economy is an important attribute of the instrument. McLure (1987, p.30) has argued that “in the field of indirect taxation,

neutrality would be achieved by subjecting all goods and services consumed by households to the same rate of *ad valorem* taxation”. Each of the three countries under examination had their GSTs imposed on a different base: New Zealand had the fewest exemptions, Canada had some exemptions for items such as financial products and owner-occupied housing, and Australia had the most exemptions, including food, education, health, financial products and owner-occupied housing. All three countries chose to have a multi-stage VAT with a system of refundable input tax credits, as opposed to a RST imposed only at the retail stage. Moreover, the rates at which the GST was imposed were different. Table 2 provides a summary of some neutrality characteristics of the GST in each of the three countries.

Table 2. Summary of Some Key Economic Neutrality Impacts

	Australia	New Zealand	Canada
Government Net Revenue	Slightly revenue expansionary	Revenue neutral	Slightly revenue contractionary
Tax Base	Several exemptions including: <ol style="list-style-type: none"> 1. Food 2. Education 3. Health 4. Financial Supplies 	Very broad, very few exemptions	Some exemptions including: <ol style="list-style-type: none"> 1. Financial supplies 2. Owner occupied housing
Administrative Considerations	Medium registration threshold	Low registration threshold	Medium registration threshold
VAT or RST	VAT	VAT	VAT

Sources: Kelsey, 1994; Brooks, 1992 and Commonwealth Treasury, 2003.

In terms of the basic measures of neutrality presented in Table 2, it is clear that along a continuum of neutrality, Australia introduced the least neutral GST package, the Canadian GST policy was somewhat more neutral, the New Zealand's measures were the most neutral economically.

Consumer price inflation

The macroeconomic price impact of the change to a tax mix attendant upon the introduction of the GST is critically important. Various scholars have taken conflicting positions on the expected impact on final consumer prices of a change in the tax regime. For instance, McLure (1987, p39) has summarized the debate as follows: "The price rise induced by the VAT would be a one-time phenomenon; although it might be measured as a spurt of inflation, it would not be a rise in the rate of inflation"; nevertheless, "under some conditions, however, imposing a VAT might create further rounds of price increases and aggravate inflation".

In the present context, it seems useful to frame the comparison of the macroeconomic inflationary effect in terms of Alston's (1996) case study methodology. At the time of New Zealand's GST introduction all three countries had roughly 4% to 6 % annual consumer price inflation rates. In the year following the introduction of the GST in Canada, the average of the three countries had dropped to between 1% and 2 %. The average was still low in the year before the introduction of the GST in Australia. Accordingly, the observed spike in price

levels that occurred in all three countries should not be compared directly intertemporally with regards to economic performance since almost all the other factors impinging on the rate of inflation were different. However, while all three countries did exhibit a spike in price level, there was nonetheless no indication of subsequent wage-price spirals. Figure 1 and Table 3 illustrate the impact of the GST on consumer price inflation rates.

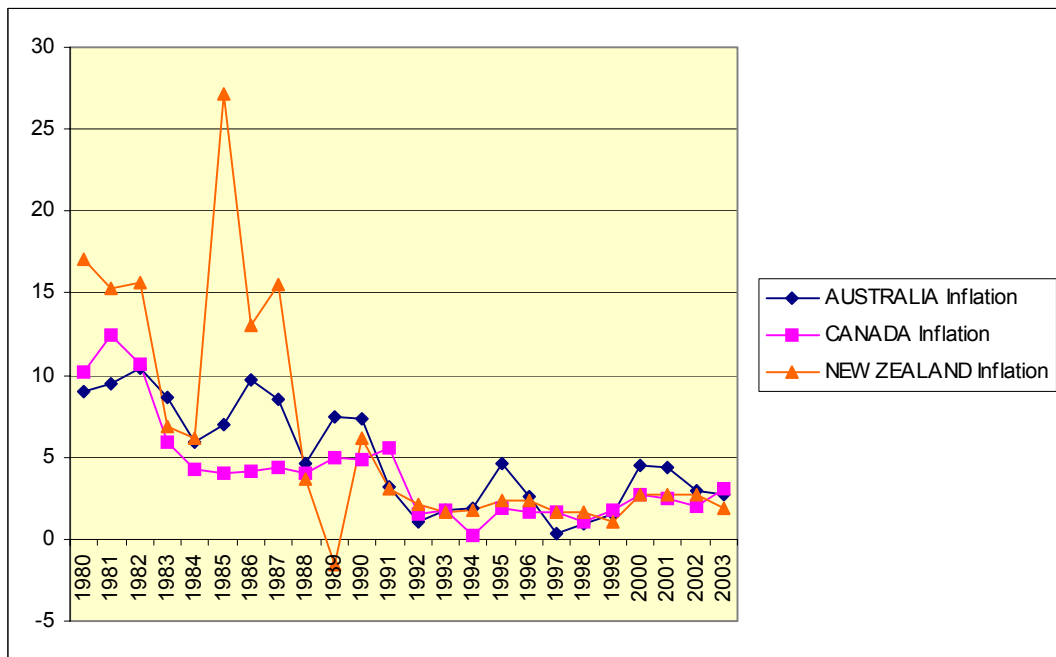


Figure 1. Inflation in Australia, Canada and New Zealand 1980-2003

Source: International Monetary Fund, 2003.

Table 3. Annual Percentage Change in Consumer Price Inflation

Country	1980	1981	1982	1983	1984	1985	1986	1987
Australia	9	9.5	10.4	8.6	5.9	7	9.7	8.5
Canada	10.2	12.5	10.7	5.9	4.3	4	4.1	4.4
New Zealand	17.1	15.3	15.6	6.9	6.1	13.1	27.2	15.5
	1988	1989	1990	1991	1992	1993	1994	1995
Australia	4.6	7.5	7.3	3.2	1	1.8	1.9	4.6
Canada	4	5	4.8	5.6	1.5	1.8	0.2	1.9
New Zealand	3.7	-1.6	6.2	3.1	2.1	1.7	1.8	2.4
	1996	1997	1998	1999	2000	2001	2002	2003
Australia	2.6	0.3	0.9	1.5	4.5	4.4	3	2.7
Canada	1.6	1.6	1	1.8	2.7	2.5	2	3.1
New Zealand	2.3	1.7	1.6	1.1	2.7	2.7	2.7	1.9

Source: International Monetary Fund, 2003.

The relative performance of the three countries is shown in Figure 1 and Table 3. In all three countries the impact was temporary. New Zealand had the largest impact (both immediately prior to the introduction and in 1986 itself), Australia the least impact on consumer price inflation, and Canada fell between these two countries. The magnitude of the impact seems to follow the downward trend in underlying inflation that all three countries have been experiencing during the period of analysis. There is no indication of any subsequent wage/price spiral.

Economic growth effects

In the literature consumption taxes broad consensus exists that a neutrally designed change to the tax mix should have a negligible effect on economic growth, other than that directly facilitated by its economic efficiency gains through broadening of the tax base (see, for instance, McLure, 1987). This presents a problem because gains in efficiency are difficult to separate retrospectively from

observed changes in economic growth, they are vitally affected by many cyclical and trend factors, and subjected to many exogenous shocks unrelated to the tax mix change. Bearing this important caveat in mind, Figure 2 and Table 4 contain the basic data on economic growth performance in the three countries.

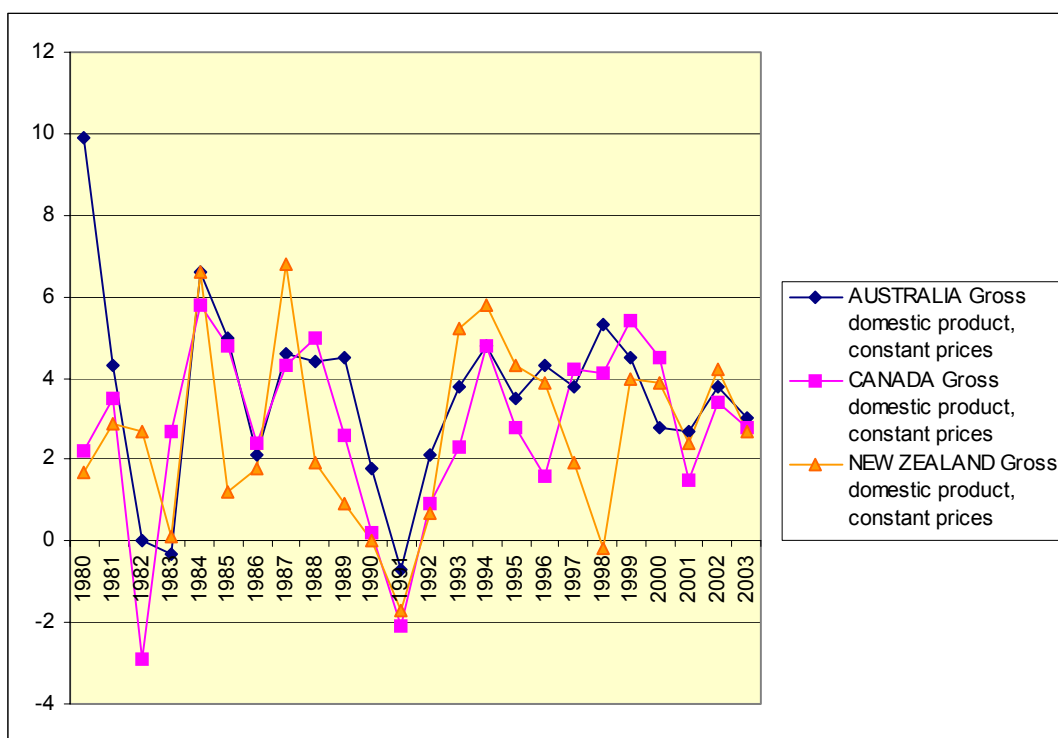


Figure 2. Annual Percentage Change in GDP, 1980 -2003

Source: International Monetary Fund, 2003.

Table 4. Annual Percentage Change in GDP

Country	1980	1981	1982	1983	1984	1985	1986	1987
Australia	9.9	4.3	0	-0.3	6.6	5	2.1	4.6
Canada	2.2	3.5	-2.9	2.7	5.8	4.8	2.4	4.3
New Zealand	1.7	2.9	2.7	0.1	6.6	1.2	1.8	6.8
	1988	1989	1990	1991	1992	1993	1994	1995
Australia	4.4	4.5	1.8	-0.7	2.1	3.8	4.8	3.5
Canada	5	2.6	0.2	-2.1	0.9	2.3	4.8	2.8
New Zealand	1.9	0.9	0	-1.7	0.7	5.2	5.8	4.3
	1996	1997	1998	1999	2000	2001	2002	2003
Australia	4.3	3.8	5.3	4.5	2.8	2.7	3.8	3
Canada	1.6	4.2	4.1	5.4	4.5	1.5	3.4	2.8
New Zealand	3.9	1.9	-0.2	4	3.9	2.4	4.2	2.7

Source: International Monetary Fund, 2003.

The relative performance of the three countries is illustrated in Figure 2 and Table 4. It is immediately apparent that the economic impacts of the GST package were quite varied across countries, suggesting no common denominator. For example, the dramatic jump in GDP in 1987 in New Zealand can hardly be attributed to GDP growth since both Australia and Canada experienced a simultaneous boom period. For the same reason, the Canadian recession could not have been induced by the introduction of the GST because it formed part of the (then) global recession.

Revenue effects

It is widely recognized that one of the key factors that had driven the introduction of the GST was the need to raise additional tax revenue (see, for instance, Sandford, 2000). Various factors have been advanced to explain the inability of the existing tax regimes to collect sufficient revenue, especially the erosion of the

goods tax base under the MST and WST and the increasing service sector share of GDP. As it turned out, the observed revenue that was raised has been substantially greater than was predicted in all three countries concerned.

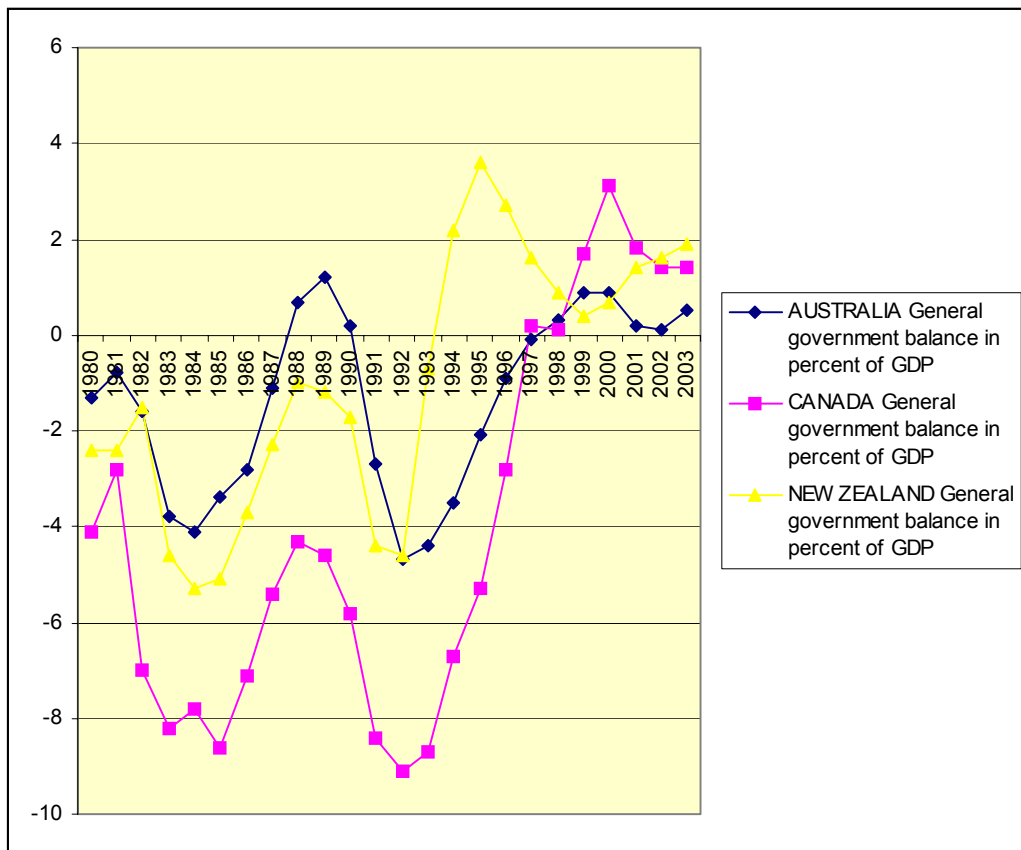


Figure 3. General Government Balance as a Percent of GDP
 Source: International Monetary Fund, 2003.

Table 5. General Government Balance as a Percent of GDP

Country	1980	1981	1982	1983	1984	1985	1986	1987
Australia	-1.3	-0.8	-1.6	-3.8	-4.1	-3.4	-2.8	-1.1
Canada	-4.1	-2.8	-7	-8.2	-7.8	-8.6	-7.1	-5.4
New Zealand	-2.4	-2.4	-1.5	-4.6	-5.3	-5.1	-3.7	-2.3
	1988	1989	1990	1991	1992	1993	1994	1995
Australia	0.7	1.2	0.2	-2.7	-4.7	-4.4	-3.5	-2.1
Canada	-4.3	-4.6	-5.8	-8.4	-9.1	-8.7	-6.7	-5.3
New Zealand	-1	-1.2	-1.7	-4.4	-4.6	-0.7	2.2	3.6
	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-0.9	-0.1	0.3	0.9	0.9	0.2	0.1	0.5
Canada	-2.8	0.2	0.1	1.7	3.1	1.8	1.4	1.4
New Zealand	2.7	1.6	0.9	0.4	0.7	1.4	1.6	1.9

Source: International Monetary Fund, 2003.

Figure 4 and Table 5 illustrate the relative fiscal performance of the three countries since 1980. It is evident that there has been significant change in the budget balances of all three countries. It is no surprise that there is a significant degree of pro-cyclical behaviour in the size of the budget deficit-surplus in all three countries. The deficits are much larger during recessions, reflecting decreased tax revenues during these periods and increased spending demands, such as increased aggregate unemployment benefits. One of the decided advantages of the change to GST is that it decreased the magnitude of the fluctuations in tax revenue.

At the time of introduction of the GST in each of the three countries there had been a slight net decrease in government revenue as a percentage of GDP. This concurs with observations of the relative neutrality of the measures in each of the three countries in that they replaced wholesale sales taxes and introduced

income tax changes that resulted in approximately balanced revenue impacts. The country with the highest net revenue gain following the introduction of the GST was Canada. Australia had a revenue loss, but still maintained a budget surplus.

Current account balance effects

The macroeconomic impact of the tax mix changes for open economies has been considered very important by economic commentators. For example, McLure (1987, p. 40) argued that “the imposition of a VAT would improve the nation’s competitive position (or its balance of payments)”. Moreover, Argy and Hooke (1986) concurred with this position, particularly in the case of small open economies, whose major trading partners do not enjoy a similar “export subsidy”.

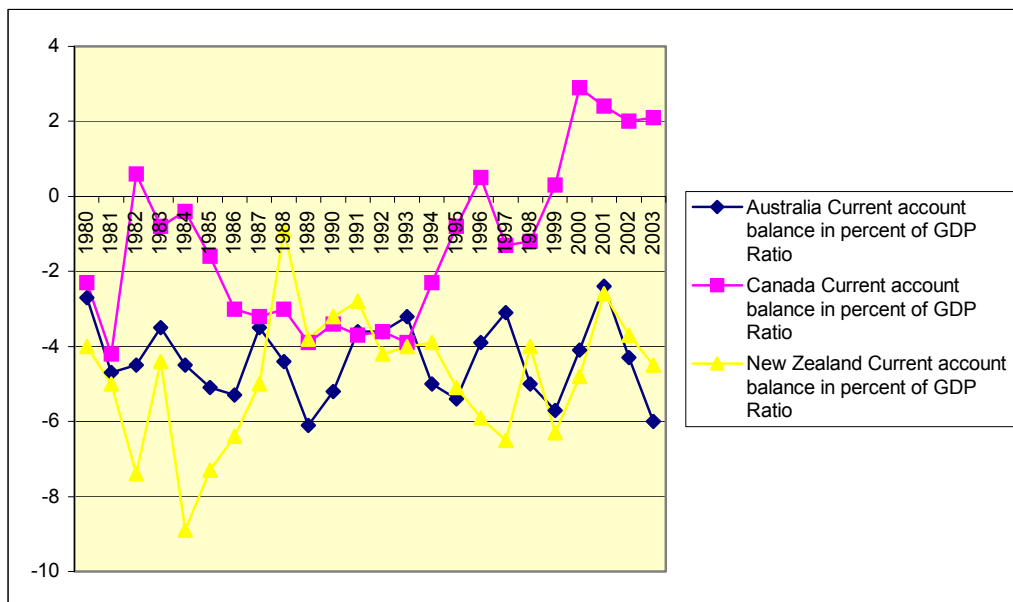


Figure 4. Current Account balance as a Percentage of GDP
 Source: International Monetary Fund, 2003.

Table 6. Current Account Balance as a Percentage of GDP

Country	1980	1981	1982	1983	1984	1985	1986	1987
Australia	-2.7	-4.7	-4.5	-3.5	-4.5	-5.1	-5.3	-3.5
Canada	-2.3	-4.2	0.6	-0.8	-0.4	-1.6	-3	-3.2
New Zealand	-4	-5	-7.4	-4.4	-8.9	-7.3	-6.4	-5
	1988	1989	1990	1991	1992	1993	1994	1995
Australia	-4.4	-6.1	-5.2	-3.6	-3.6	-3.2	-5	-5.4
Canada	-3	-3.9	-3.4	-3.7	-3.6	-3.9	-2.3	-0.8
New Zealand	-0.9	-3.8	-3.2	-2.8	-4.2	-4	-3.9	-5.1
	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-3.9	-3.1	-5	-5.7	-4.1	-2.4	-4.3	-6
Canada	0.5	-1.3	-1.2	0.3	2.9	2.4	2	2.1
New Zealand	-5.9	-6.5	-4	-6.3	-4.8	-2.6	-3.7	-4.5

Source: International Monetary Fund, 2003.

Figure 4 and Table 6 illustrate the relative performance of the three countries. It is clear that the impact has been different for each of the three countries under examination. Since the introduction of the GST Canada has enjoyed a significant recovery in its current account balance, with an improvement from -3.7% to $+2.1\%$ since the introduction of its GST. By contrast, New Zealand enjoyed an early recovery in its current account position, followed by a period of relative stability. This temporary improvement is in line with McLure's (1987) observation that any gains in competitiveness through tax mix changes are usually short lived. Australia has had only a marginal improvement in its current account position and it is too early to evaluate any long-term effect.

4. CONCLUDING REMARKS

Table 7 presents a comparative summary of some of the macroeconomic effects we have examined in relation to the introduction of the GST in Australia New Zealand and Canada. In essence, the neutrality, price, growth and current account effects observed aligned with *ex ante* expectations of the impact of the introduction of the GST. Revenue was greater than anticipated in all countries.

Table 7. A Matrix of the Effects of the Introduction of the GST

	Australia	New Zealand	Canada
Some Macroeconomic Effects			
• Economic neutrality	Least neutral	Most neutral	Intermediate neutrality
• Price Changes	Short run one off effect, attributed to role of ACCC	Short run spike in prices, no longer run increase	Short run spike in prices, no longer run increase, price regulatory body criticized
• Economic Growth	Introduced during sustained economic growth period	Introduced at the end of recession, subsequent upswing	Introduced in midst of major recession, criticized as compounding
• Revenue Effects	Revenue exceeded expectations	Revenue exceeded expectations	Revenue exceeded expectations
• Current Account	Slight improvement since introduction	Rapid immediate improvement, longer term stabilization	Dramatic Improvement since introduction of GST, NAFTA
Other Effects			
• Administrative	Compensatory package for administrative costs, high costs per dollar collected.	Low costs per dollar collected.	Intermediate costs per dollar collected
• Underground economy	Limited observed change in underground economy size	Some observed increase	Large observed increase, particularly in construction industry

Sources: Bajada, 2002; Brooks, 1992; Commonwealth Treasury, 2003; Giles and Tedds, 1995; International Monetary Fund, 2003; Kelsey, 1996; and Tait, 1998.

In the light of the empirical conclusions developed in this paper, it seems appropriate to conclude by briefly noting the policy implications of the results. In the first place, the macroeconomic impact of a change to the introduction of the GST is significant in terms of growth effects, price effects, current account effects and the effect on the budget balance. Secondly, in a highly developed open economy with a high and growing service sector, a change in the tax mix from income to consumption-based taxes is likely to provide a fruitful source of revenue. Thirdly, the aggregate consumer price impact of the introduction of the GST in Australia, Canada and New Zealand on the macro-economy was both limited and temporary. Finally, despite falling outside the limited focus of this short note, we should record that some impact has also occurred in the administrative component of the compliance cost of the GST as well as a likely increase in tax revenue from the “underground” or “black” economy.

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