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Accounting Research Project

An investigation into the feasibility of replacing Goods and Services Tax (GST) with a Financial Transactions Tax (FTT)

26 November 2001

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Abstract

Consumption based taxes have become increasingly popular since World War II with the advent of the International Monetary Fund and the World Bank. This project examines the reasons why this form of taxation is popular and whether it is feasible to replace Value Added Taxes (VAT) with a tax on financial transactions (FTT) in New Zealand.

New Zealand's VAT is in the form of Goods and Services Tax (GST).

Financial Transactions Tax has been proposed as a more equitable tax with a broader tax base than GST/VAT. This project examines what in New Zealand the rate at which such an FTT would have to be levied for the replacement tax base to be revenue neutral. The

estimated rate is established by examining the annual accounts of 20 public listed companies.

1 Overview

There has been criticism of Value Added Tax (VAT)¹ internationally along with its apparent popularity. The strongest voice of dissent has been coming from Canada² for years, and more recently in Australia with the introduction of GST on 1st July 2000.

In NZ with the increase in penalties on all taxes, and the big Accounting firms moving to value added consultancy, there is a reluctance to undertake compliance work (including GST) especially for smaller taxpayers where compliance costs are a significant burden.

The NZ Democrats, one of the parties making up the Alliance (coalition partner in the present New Zealand Government), proposed a tax on financial transactions³ (FTT) both as a way of more fairly raising funds for the government and of curbing unproductive speculation (The FTT that the Alliance proposed is in Appendix A).

GST in New Zealand is levied on all goods and services at 12.5%, with exceptions for exports, that are zero-rated and financial services, which are exempt, (which means GST inputs can be claimed but nothing charged on outputs). All businesses that make supplies of goods and services in a taxable activity (almost everything) above a threshold of \$40,000 must be registered and charge GST on all good and services sold.⁴

So what is a Financial Transactions Tax (FTT)?

“It can be thought of broadly as any tax, fee, duty, etc imposed by a government upon the sale, purchase, transfer or registration, of a financial instrument - it is for the most part a turnover tax.”⁵

Marion Wrobel proposes a tax on financial transactions i.e. on sale, purchase, transfer or registration of any financial instrument. Wrobel argues bank withdrawals, cheque writing, or obtaining finance for a car or home would be exempt from FTT. A traditional FTT is designed to reduce short-term market volatility by slowing down or reducing speculative trading.

The reason that I am doing this project; is that FTT is apparently simpler than the current GST and fairer to all taxpayers.

¹ GST (Goods and Services Tax) is a form of VAT (Value Added Tax) payable by the ultimate consumer. GST & VAT are levied on all taxable goods and services produced by a registered firm. Deductions are allowed for GST paid on inputs (purchases) and GST must be charged on all outputs (sales). The sales invoice will generally show the amount of GST in the sale price. GST/VAT is collected and paid at all points of the production and distribution cycle in a cascading form of collection.

² Brooks, Neil, “the Canadian GST: a skeptic’s assessment after 7 years“, (Sydney 1998) Paper for the conference Tax Reform & GST an international perspective.

³ See Alliance Alternative budget, “Would a Financial Transaction Tax be more efficient and equitable than the Goods and Services Tax?”, Alliance (1995).

⁴ GST Act 1985, section 8.

⁵ Wrobel, Marion G. “Financial Transaction Taxes: Pros, Cons, design issues and revenue estimates”, (1996) Library of Parliament (Canada).

What I propose is to tax every transaction where, money/cash asset is transferred to a third party. This would then exempt transactions where people and firms are juggling funds between their own bank accounts. A simple definition would be that the same IRD number is registered with the two accounts involved.

Exchanging one form of money with another should not be taxed, as there is no effective difference between money in a non-interest bearing current account in the bank and that in one's wallet⁶. There is the question as to which leg of the transaction should be taxed - the payment on purchase or the receipt on sale?

Consider:

What is the difference between: buying an artwork and it appreciates in value, buying stock and reselling at a higher price, buying shares on the stock market and receiving a dividend, reselling those shares at a higher price, buying a business and making a profit, buying debentures and receiving interest, deposit in a bank account receiving interest.

Fundamentally they are all investments, they only differ in the treatment of GST.

Section 2 discusses why GST is so popular internationally and the criticisms of GST as well as proposals for an FTT.

Section 3 describes the research methodology employed in this project.

Section 4 analyses the results of the project

Section 5 notes some limitations of this project.

Section 6 reaches a conclusion about the feasibility of replacing GST with FTT in New Zealand.

2 Literature review

Cedric Stanford⁷ has said that the requirements for a good VAT are:

- Should be productive of revenue and responsive to changes in revenue needs.
- Unintended distortions of producer choices, with respect to the form and the methods by which business is conducted, and of consumer choices for one good over another should be minimised.
- Should permit the unequivocal application of the destination principle - taxed in country where consumed not produced.
- Simple and easy to understand
- Costs of collecting and enforcing should be kept low.
- Should be easy to comply with and should interfere as little as possible with the free function of business and trade.

⁶ The author does mean, tax interest bearing accounts.

⁷ Sandford, Cedric, (Editor), "Key Issues in Tax reform", (1993) Fiscal Publications

2.1 GST

Why is GST popular?

The introduction of GST has, as in most countries where a comprehensive VAT is introduced has also seen a reduction of high marginal tax rates. This was seen as a good thing because of the disincentive and distorting effects, which were believed to follow from high marginal tax rates. There is also the belief that taxes on consumption rather than on income would encourage saving and might reduce evasion and avoidance.

Cedric Sandford's conclusion is.⁸

1. It is a good revenue-yielder. Its wide base means that a small rise generates considerable revenue.
2. It is neutral in its treatment of goods relatively to services: and if a single rate is employed with minimum zero-rating and exemption, it achieves a practicable neutrality as between different products.
3. It is a relatively effective mechanism for securing neutrality in international trade.
4. It is more evasion proof than its principal rival, the RST (Retail Sales Tax).
5. Infrastructure, wealth, literate population needed to levy taxes on other bases, e.g. income tax.⁹

Some trading blocks require a VAT as a precondition to membership¹⁰. One of note is the European Community. The international Monetary Fund and the World Bank have also encouraged tax reform.

Why is GST criticised?

As the share of income that is spent on goods and services decreases with rising income the incidence of GST falls more heavily on those with low incomes.¹¹ Regressivity is a major issue, in Australia it led to unprocessed food being "GST free".

Financial services have as a rule not been taxed because of various problems in trying to tax them. Should tax be imposed on the full price - the interest - of the financial service, or should the tax be confined to the gross margin of the intermediary as measured by the difference between the revenue from the lending and the cost of borrowing etc.¹⁰

Its compliance cost are regressive, they fall with exceptional severity on small businesses and smaller taxpayers.¹⁰

For example;

⁸ Sandford, Cedric, "Why have so many countries adopted VAT?" p.10.

⁹ Sandford, Cedric, "Why Tax Systems Differ", p 14

¹⁰ Sandford, Cedric, "Successful Tax Reform".

¹¹ Sandford, Cedric, (Editor), "Key Issues in Tax reform".

Taxable turnover (\$NZ000) compliance costs p% of turnover 1990-1991¹²

0-30	2.66
30-100	1.64
100-250	0.72
250-500	0.63
500-1000	0.42
1000-2000	0.23
2000-10000	0.07
10000-50000	0.01
over 50000	0.005

Overseas research reports similar shaped results although only NZ had low turnover compliance cost above 2% For large business compliance cost can be negative, (the cash flow advantages, greater than administration costs)

The reduction in marginal tax rates and the regressiveness of GST has resulted in the rich few getting richer, and the poor getting poorer.¹³ Professor Srikath Chatterjee, "... in the last 15 years, the top 5% have seen their share of the wealth rise by 15%, next 15% have barely held their ground, bottom 80% were left relatively worse off." "that, the lower down you were the more you suffered in a proportional loss."

Murry Dobbin¹⁴ studied GST in Canada, which is based on our GST in New Zealand. In particular he also noted its regressivity, and that it redistributes income to the wealthy. He rebuffs the criticism that argues against the removal of GST.

2.2 FTT

Much of the literature has proposed financial transaction taxes as a means of curbing financial speculation. It has also be suggested as a means of funding a Full Universal Income into the New Zealand Economy¹⁵

Dean Baker¹⁶ said: - tax shift should also produce large dividends in terms in economic growth. Simply by reducing the number of transactions ... making these markets more efficient.

- A small tax on financial speculation, such as a 0.25% tax on the sale or purchase of a share of stock, would have little impact on people who buy investments to hold. People who speculate in financial assets, often buying and selling them in the same day, would pay the bulk of this tax.

- It is far better economically to tax unproductive activities than productive ones.

- A tax on the trading of financial assets should have substantial positive effects on the economy. The most immediate and direct effect is that the tax would eliminate a substantial amount of waste in the running of financial markets by reducing the volume of trades that take place.

- Output of the financial sector is not trading assets. Rather, its output is the transfer of savings from investors to the corporation, individuals, or governments that need to

¹² Sandford, Cedric, "Why have so many countries adopted VAT?", p.8.

¹³ New Zealand Listener 8-14 August 1998, page 18 "For Richer or Poorer", article by Gordon Campbell.

¹⁴ Dobbin, Murry, "10 Tax Myths. (Myth 9 "cancelling the GST now would be to difficult. ...)".

¹⁵ Manning, L., "The Economic Effects of Introducing a Full Universal Income Into the New Zealand Economy".

¹⁶ Baker, Dean, "Taxing Financial Speculation: Shifting the Tax burden from Wages to Wagers".

borrow. If this transfer can be done with fewer workers and fewer trades, then the efficiency of the financial sector will be greater.

There is concern about the flight of financial transactions,¹⁷ although it is recognised that the degree of the problem is difficult to quantify. A well designed tax should follow the model of the Danish stock transactions tax, which applied to the foreign trades of Danish nationals and Danish corporations, which meant that they could not benefit by shifting there trades to other markets.¹⁸

Dean Baker²⁰ of the Center for Economic and Policy Research (USA) said that: “The tax shift from goods and services to financial transaction should also produce large dividends in terms in economic growth. Simply by reducing the number of transactions ... making these markets more efficient. A small tax on financial speculation, such as a 0.25% tax on the sale or purchase of a share of stock, would have little impact on people who buy investments to hold.” “The bulk of this tax would be paid by people who speculate in financial assets, often buying and selling them in the same day. It is far better economically to tax unproductive activities than productive ones. A tax on the trading of financial assets should have substantial positive effects on the economy.” “The most immediate and direct effect is that the tax would eliminate a substantial amount of waste in the running of financial markets by reducing the volume of trades that take place. Output of the financial sector is not trading assets. Rather, its output is the transfer of savings from investors to the corporation, individuals, or governments that need to borrow. If this transfer can be done with fewer workers and fewer trades, then the efficiency of the financial sector will be greater.”

3 Methodology

I collated a list of all financial reports that were obtainable. Only companies whose balance dates fell in the range 1 April 2000 and 31 March 2001 were considered. Using the random number generator on a computer I obtained 23 reports to analyse.

I obtained 23 instead of the planned 20, to make an allowance for when, on going through a report, I found a reason that I could not use a particular report. I had to eliminate one company because due to the particular nature of its international business, its income and expenses would not have similar portions of GST attached. Some other companies also had international business, but I expect that they would have attracted GST in similar proportions on income and expenses. Rather than trying to work out what portion of their business was outside NZ and therefore did not attract GST, I simply assumed that it would not affect the calculation for the FTT rate because it was a proportion on the tax base and although the size of the tax base would change the rate would not. Another company was eliminated because the nature of it's funding meant there was insufficient information provided in the accounts to fairly determine it's tax base. It was necessary then to eliminate a third company. This was done simply by picking a random number and eliminating the corresponding company. It is interesting to note that its variance from the mean was small enough that its elimination from the calculation did not affect the rate

¹⁷ That because financial transactions will cost more, traders will move to other countries where the cost of transactions are less. In general banks already charge per transaction.

¹⁸ Barker, Dean, “The Feasibility of a Unilateral Speculation Tax in the United States”.

of FTT that was calculated. Only five of the companies gave the net GST paid (received). An additional analysis was done on these five to see how accurately GST was calculated using the method below.

3.1 Obtaining GST figure

Starting with the pre tax profit, I then searched for every mention of items that were included in the profit, but would not have attracted GST and therefore needed to be taken out, or added back in, depending on whether it was a revenue or an expense item.

Items that were added back to profit

included, (where listed):

amortisation of goodwill,
amortisation of intangibles,
amortisation of premiums on leases,
bad debts written off,
decrease in value of fixed assets,
depreciation,
development feasibility cost written off,
directors fees,
donations,

foreign currency loses,
gas entitlement amortisation,
GST written off,
increase in doubtful debts provision,
interest paid,
leasing charges,
loss on sale of assets,
personnel,
provision for write down of fixed assets.

Items that were taken off profit:

decrease in provision of doubtful debts,
dividends received,
foreign exchange gains,

interest received,
gain on sale.

Also as asset sales and purchases attract GST, these amounts were added or subtracted, respectively from profit. This then gave a total tax base from which GST paid was calculated.

Five of the twenty companies stated net GST in their accounts.¹⁹ Due to the published end of year accounts not containing the detailed information that would be required to ascertain all the adjustments needed to calculate the correct net GST inputs and outputs, I took advantage of these five companies to estimate an adjustment to the calculated GST.

3.2 Obtaining FTT rate

The total cash flows in and out were calculated to give the tax base from which I calculated an FTT rate. Total cash in was obtained by simply adding the amounts as stated in the cash flow statement, and similarly for cash out. This gave the size of the potential tax base. It is worth noting that the totals for cash in and cash out were almost the same, giving an initial FTT rate within 0.02 percentage points, which was small enough to disappear in the variance of the final figure.

Statements of Cash Flows were analysed to determine total receipts and payments for a year, to use as a basis for the value of transactions that would be in the base that

¹⁹ Table 4.3

would be levied under an FTT. If GST paid was not given, I assumed that net GST was 1/8 of net profit, adjusted where possible for non-current asset acquisitions and disposals. A selection of 20 Company annual reports randomly selected were analysed to see what effective rate an FTT would need to be, to generate an amount equivalent to GST. A range of effective rates will be found. To obtain one rate it was calculated on the total transactions and the calculated GST of the 20 companies.

As an example: Contact Energy for the year ended 30 September 2000.²⁰

GST paid was not specifically mentioned in the Report, but if we take GST to have been 1/8 of the operating surplus before tax²¹, we have 1/8 of \$115, 358²² is \$14,420. The tax base if an FTT was applied to Contact Energy would be the amount of funds flowing into or out of Contact Energy.

If we take total cash provided from:	²³ Operating activities	\$ 792 139
	Investing activities	\$ 88 992
	Financing activities	<u>\$ 1 234 986</u>
	Total	\$ 2 116 117

If this total was taxed at a rate to raise the same as GST we need a rate of 0.68%.

To obtain a range of tax rates that FTT might be levied at, I obtained and analysed the information available from Statistics NZ and Reserve Bank bulletins to find out what the volume of financial transactions was. The volume of inter bank transfers would provide a starting point to determine the minimum size of the tax base.

Some assumptions had to be made in analysing the data, for example where the amount of GST paid in the financial year was not specified in the Statement of Cashflows. A limitation of this project is that only published financial reports are analysed because information relating to smaller businesses is not readily publicly available. The impact of FTT may differ on different sized businesses.

4 Results

4.1 Analysis of Public listed companies

The twenty listed public companies were from various industries:

²⁰ "Contact Energy Limited Annual Report 2000".

²¹ "Contact Energy Limited Annual Report 2000", p.29 Statement of Financial Performance.

²² Rounded to \$000.

²³ "Contact Energy Limited Annual Report 2000", p.31 Statement of Cashflows.

forestry,
transport,
energy,
airport,
investment trust,
carpet manufacturer/retailer,
motor vehicle dealer,
clothing, newspaper,

retirement villages,
financial service,
recreation,
shipping,
fishing,
public utility,
but no retail trade.

Table 4.1 Summary of company information

Reported earnings ranged from;	\$ 25 000 to \$ 124 000 000
Asset sales from;	\$ 1 000 to \$ 7 050 000
Asset purchases from;	\$ 137 000 to \$ 32 400 000
Cash flow in;	\$ 6 640 000 to \$ 1 290 000 000
Cash flow out;	\$ 6 080 000 to \$ 1 310 000 000

Table 4.2 Details of companies analysed

(In NZ\$ thousands)

Company	Reported earnings	Adjustments	Adjusted earnings	Cash in	Cash out
A	2302	152	2454	6642	6080
B	7882	13382	9189	630425	633004
C	7850	5220	11502	25968	26017
D	123749	18814	110322	200676	200833
E	31873	5054	35778	68697	79574
F	19401	5769	20587	220769	221360
G	12037	3341	14600	307647	306140
H	1301	916	1307	8943	8873
I	16872	3786	15098	160212	161447
J	74535	45803	110968	726519	743922
K	690	8628	5967	101810	100997
L	118279	59109	150901	1287681	1308494
M	28461	24765	43255	394393	398986
N	1033	1034	2067	9896	9914
O	25	1250	1139	6841	6959
P	29810	10662	33406	82967	81601
Q	4354	23968	25685	729839	736768
R	35297	6828	39239	250537	296548
S	70700	14810	85510	385916	356226
T	23096	23315	31126	141360	142759
Totals	609548	276606	750099	5747738	5826502

GST on \$ 750 099 320 is \$ 93 762 415.

For FTT on cash in to raise the same amount the FTT rate will need to be 1.63%

For FTT on cash out to raise the same amount the FTT rate will need to be 1.61%

Five companies gave net GST paid. Using the same method as for the other companies I calculated their GST and compared it to their actual GST.

Table 4.3 Comparison of reported GST to calculated GST

(NZ\$)

Company	Reported GST	Calculated GST
C	20 000	1 437 750
D	11 475 000	13 790 250
F	(131 000)	2 573 375
J	184 000	13 871 000
N	2 000	258 375
Totals	11 550 000	31 930 750

The actual GST is 2.76 times lower than the figure I calculated for them. Using this 2.76 times, as the over estimate of the calculated GST gives a new amount of GST equal to \$ 31 930 750. The adjusted equivalent FTT rate becomes 0.6% on cash flow in of \$ 5 747 738 204

This is less than one percent, which is low, one twentieth of the current GST rate.

4.2 Volume of financial transactions

I was not able to obtain the total amount for financial transactions that occurs in New Zealand, nor the amount of inter-bank transactions, but I was able to obtain data for Production and distribution GST sales and purchases, and the New Zealand Government bond turnover survey. Assuming that there is no overlap between the two data series, the actual volume of financial transactions must be greater than these two combined, therefore a maximum FTT rate can be calculated.

Table 4.4 Minimum financial transactions for the year ended 31 March 2001

Total minimum financial transactions for the year ended 31 March 2001

(NZ\$ million)

Production and Distribution GST sales ²⁴	\$ 382 116
New Zealand Government bond turnover ²⁵	\$ 552 480
Total minimum financial transactions	\$ 934 596

With the net GST collected for the same year \$9031 million,²⁶ this gives an effective maximum rate of 0.966%.²⁷

²⁴ Appendix D, Part DB

²⁵ Appendix D, Part DC

²⁶ Appendix D, Part DA

²⁷ = GST / Total minimum financial transactions x 100%

Therefore, assuming that the volume of transactions does not decrease dramatically with a change from GST to FTT, an FTT rate of at most one percent could reasonably be expected to raise at least as much money as the GST it would replace.

4.3 FTT on cash in or cash out?

What are the arguments for making **cash in**²⁸ the tax base?

- As tax is taken out when funds are deposited, the full amount in the taxpayers account is available to the taxpayer instead of having to make an allowance for tax on withdrawals.
- Tax is paid from funds that have been received, rather than subtracting from an account that has just had a withdrawal.

What are the arguments for making **cash out**²⁹ the tax base?

- The funds received are the full amount expected.

Levying FTT on cash out could possibly put the taxpayer's account into overdraft unexpectedly, if the taxpayer does not make an allowance for FTT. It would be better that legal requirements avoid putting a taxpayer in this situation, so it would be better to levy FTT on cash in.

4.4 Canons of taxation

In 1776 Adam Smith³⁰ proposed four canons of taxation that any tax system should meet, these are:

- equality of sacrifice,
- certainty,
- convenience,
- economic in operation.

How does GST and FTT measure up to these canons?

Equality of sacrifice: as mentioned previously GST is a regressive tax, it falls more heavily on those of low incomes than those of high incomes, also the cost of collection falls more heavily on small businesses than on large businesses, who may even have the cash flow benefit (use of funds payment to them) outweigh the cost of collection. The inclusion of all financial transactions in an FTT will spread the tax more evenly.

Certainty: GST is on all goods and services, except financial services, which are exempt, and exports, which are zero-rated. The tax base is quite certain because it includes almost all goods and services consumed in New Zealand. With FTT in order to make use of income from illegal activities, the income must enter the financial system before it can be spent to acquire goods in the normal economy.

Convenience: With GST every business registered of GST must collect, account for, and pay the IRD, the tax collected. With FTT the financial system will be set up to

²⁸ Cash in: All cash and cash equivalents received by the taxpayer, i.e. deposits.

²⁹ Cash out: All cash and cash equivalents paid by the taxpayer, i.e. withdrawals.

³⁰ Smith, Adam, "Canons of Taxation" Wealth of Nations (1776),

collect the tax, so those who currently collect GST will be free of the extra administration that is required to account for GST.

Economic in operation: The collection of GST falls on the taxpayer.³¹ The collection of FTT will fall on financial institutions, there will be an initial cost to change their systems to collect the tax, but thereafter the ongoing cost will be minor, is the resident withholding tax on interest that banks currently collect. There will be no compliance costs on Joe Public or companies excepting financial institutions. So after the initial set-up costs FTT will be very economic in operation.

Therefore FTT meets the canons of taxation better than GST. In addition there will be a psychological advantage. With a low rate of FTT set to 0.6%, being a twentieth of GST, there will be less incentive to avoid the tax.

5 Limitations

For this project, only end of year accounts from listed public companies were used. Small business (less than 5 employees) form approximately 92% of the business in New Zealand,³² these businesses are not represented in the listed public companies I used for this project. A broader analysis than I have done, would need to be undertaken to see if the rate of FTT on a wider range of business differs from the 0.6% I have calculated.

The increase in costs due to the flow on effect of suppliers costs increasing because of FTT paid, and their suppliers paying FTT and so on, is unknown. But there will need to be on average 19.6³³ steps in the chain for the end user to pay the same as he does now with 12.5% GST.

The savings to the IRD that will be obtained because FTT will be far cheaper to administer than GST has not been factored into this research project. The amount of savings will reduce the rate FTT will need to be for a transition from GST to FTT to be revenue neutral.

6 Conclusion

Replacing Good and Services Tax with a Financial Transactions Tax will be fairer, more economic in collection and broaden the tax base significantly. Just as financial institutions currently collect Resident Withholding tax, they will be a far more efficient collecting \$9 031 million in FTT, than taxpayers currently are in collecting the \$9 031 million in GST.

³¹ Sandford, Cedric, “Why have so many countries adopted VAT?”, p.8.

³² Wong, Patsy, Chairperson of the Finance and Expenditure Select Committee, “Report into small business compliance costs”, New Zealand Government 1998.

³³ $1.125 = 1.006^{19.6}$, (1 + 0.6% multiplied by itself 19.6 times).

Analysing the twenty companies in this project, I obtained an effective FTT rate of $0.6\% \pm 0.3\%$ ³⁴ to be revenue neutral. With such a low rate being a twentieth of GST, there will be less incentive to avoid the tax.

The minimum financial transactions of \$ 934 596 million, give an effective FTT rate of 0.966% ³⁵ on these transactions alone.

Based on my studies it appears that an effective FTT rate of at most one percent would replace GST and possibly as low as 0.6%.

It would be preferable to levy FTT on cash in rather than on cash out.³⁶

It is unknown if introducing an FTT will reduce the amount of financial transactions, so this will require further investigation.

There are other possibilities that then become available, but as they are outside the scope of this report, I will just briefly mention some.

One percent FTT would apparently raise more money at less cost than GST, which could then be used to increase government spending or reduce taxes in other areas or increase debt repayments etc.

Those on lower incomes would effectively have greater spending power on their current incomes.

Those who make their livings by unproductive financial speculation will be contributing to Government revenue instead of just those who offer goods and/or services.

My recommendation is that a Financial Transactions Tax should be a part of any tax review, especially as the government is interested in simplifying tax collection.³⁷ It may be possible to simplify tax by replacing GST with FTT in conjunction with simplifying income tax, by introducing a cash flow tax as proposed by Dieter Katz of the New Zealand Treasury.³⁸

Further investigation will need to be done to see if nationally to the \$9 031 million net GST collected annually is less than one percent of cash flows as found with the twenty companies studied. If the national rate is comparable, replacing GST with FTT will be fairer, more convenient and more economic than GST.

³⁴ Section 4.1

³⁵ Section 4.2

³⁶ Section 4.3

³⁷ Tax Review 2001, Issues paper, New Zealand Government, June 2001

³⁸ Katz, Dieter, "Towards a practical Cash-Flow Tax" a paper presented to the Australasian Tax Teachers Association Conference – February 1999

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Appendix A, Alliance proposal³⁹

Basis of FTT

FTT would be levied on all bank withdrawals. The Government would levy each bank on the dollar value of debits made each month.

The computer programming costs are likely to be minimal compared with the tax received. The government will pay for this programming of the settlements system as a separate contract rather than demand that the work be done for free by the banks.

The rate of FTT would be determined as a proportion of the value of transaction (i.e. so many cents per \$100). The Alliance would abolish Cheque and Stamp duty at the time that FTT is introduced.

The Alliance would ensure that small business and personal customers are not unfairly levied as they are under the present GST regime (where there is no necessary link between GST cost incurred and the fees charged to different customer groups.)

Tax Base

The tax base for FTT is huge, According to very recent Reserve Bank estimates, which have been confirmed by enquires with a number of banks over several years, the New Zealand financial system conducts on average about \$25 billion worth of transactions per day.⁴⁰ In a full year of trading this are at least \$6 000 billion (\$6 trillion) of transactions.

This means that large sums of revenue can be raised at very low rates of tax. It also means that the effect on most transaction would be almost imperceptible and hence would not affect whether or not the transaction takes place

Rate of FTT

The rate that would be necessary to eliminate GST immediately under current economic conditions is estimated to be 10 cents per \$100 of bank debits. The potential base of FTT is so large that even such a low rate of tax has the potential to seriously depress the economy if it is levied alongside GST. Hence, the growth of FTT revenue would be very carefully monitored so that GST can be reduced by the same amount as the FTT collected, and at the same time.

Incidence of FTT

The central issue over the introduction of FTT is the political choice between a tax which is levied on all transaction at very low rates (FTT) and which will be borne by many people (such as shareholders or overseas buyers) apart from final consumers in New Zealand, and a consumption tax (GST) that adds 12.5% to final goods prices.

All taxation must be paid out of current income. This is also true of FTT. FTT implies a different method of taxing current income that is less regressive than other types of indirect⁴¹ tax such as GST.

³⁹ Alliance a plan for all New Zealanders 1995, Alliance Alternative Budget – Appendix 3 - FTT

⁴⁰ Reserve Bank Bulletin, June Quarter 1995, Page 79

⁴¹ Indirect tax; is a tax that is collected from some intermediary or agent rather than the final taxpayer. A direct tax, like Income tax, is charged directly to the taxpayer.

FTT is a tax on the use of the financial system. Those using the financial system intensively would tend to pay a greater proportion of their income in FTT. This is likely to mean that those with considerable assets to manage in complex ways will tend to pay more than those cashing a pay cheque at the local pub.

FTT is the purest form of turnover tax it is possible to devise. As such it is not so much a financial transactions tax as a money transactions tax. The only items that are not covered are non-monetary gifts and barter. Apart from that all types of spending are taxable.

Advantages over GST

Unlike GST, FTT would be levied on virtually all money transactions that take place in the country. At present only final consumers pay GST. A huge range of goods like second-hand goods and houses are not subject to GST. For example, tax avoidance schemes, which use NZ BANK accounts, would pay FTT. FTT is, thus neutral between exports and imports,⁴² spending and saving, financial and non-financial transactions and spending on new goods and spending on second hand goods. None is true of GST.

Compliance and collection costs of GST are not small. Banks are exempt from GST. This means that a lot of their business they have to pay GST on their inputs but are not allowed to charge on outputs. As a result they levy charges on their customers as best they can. In addition, they also have zero-rated outputs and taxable outputs. In order to fill out their GST returns they have first to separate all transactions into domestic and foreign as well as the three taxable categories. All this is costly. Costs are charged to captive customers like small businesses and personal customers, often quite arbitrarily and unfairly. Finally, all businesses, large or small, have to fill in regular GST returns and so have become unpaid tax collectors. FTT relieves people of this.

Consultation

Like any tax, there would have to be considerable discussion before it is brought in. This discussion would involve the full range of issues and concerns that would arise from the introduction of such a comprehensive new tax.

⁴² The author disagrees with the Alliance with its affect on imports vs. exports. GST is neutral as it is a flat 12.5% of the cost of the good imported, with exports zero-rated. FTT would have several transactions to reach the final exportable good, while an imported good has for example only the importation, wholesaler, distribution, and reseller.

Appendix B, Time table

To mid September,	Analysis of Selected Company accounts GST and cash flow information.
September,	Analysis the above data.
October, November,	Write report.

Appendix C, Company research data

(Due to rounding, totals do not exactly match figures.)

Part CA, Company data

Company	Reported earnings	Adjustments	Adjusted earnings	Calculated GST	Cash in	Cash out
A	2302	152	2454	307	6642	6080
B	7882	13382	9189	1149	630425	633004
C	7850	5220	11502	1438	25968	26017
D	123749	18814	110322	13790	200676	200833
E	31873	5054	35778	4472	68697	79574
F	19401	5769	20587	2573	220769	221360
G	12037	3341	14600	1825	307647	306140
H	1301	916	1307	163	8943	8873
I	16872	3786	15098	1887	160212	161447
J	74535	45803	110968	13871	726519	743922
K	690	8628	5967	746	101810	100997
L	118279	59109	150901	18863	1287681	1308494
M	28461	24765	43255	5407	394393	398986
N	1033	1034	2067	258	9896	9914
O	25	1250	1139	142	6841	6959
P	29810	10662	33406	4176	82967	81601
Q	4354	23968	25685	3211	729839	736768
R	35297	6828	39239	4905	250537	296548
S	70700	14810	85510	10689	385916	356226
T	23096	23315	31126	3891	141360	142759
Totals	609548	276606	750099	93762	5747738	5826502

(In \$ thousands)

Part CB, totals

Calculated total net inputs and outputs for GST	\$ 750 099 320
GST calculated as 1/8 of net total	\$ 93 762 415
Total cash in	\$5747 738 204
Total cash out	\$5826 501 910
Equivalent FTT rate on cash in ⁴³	1.63% ± 0.36%
Equivalent FTT rate on cash out ⁴⁴	1.61% ± 0.36%

Part CC, five companies that gave net GST paid

Calculated total net inputs and outputs for GST	\$ 255 446 000
GST calculated as 1/8 of net total	\$ 31 930 750
Total cash in	\$1183 828 000
Total cash out	\$1202 046 000
Equivalent FTT rate on cash in	2.7% ± 1.2%
Equivalent FTT rate on cash out	2.7% ± 1.2%

⁴³ = GST / Cash in x 100%

⁴⁴ = GST / Cash out x 100%

Actual GST as per Annual reports \$ 11 550 000
 Equivalent FTT rate on cash in 0.98% ± 0.44%
 Equivalent FTT rate on cash out 0.96% ± 0.43%
 This equates to the calculation overestimating GST and therefore the equivalent FTT rate by 2.76⁴⁵ times.

Applying this same ratio to the data in **Part CB** we get:
 Adjusted equivalent FTT rate on cash in ⁴⁶ 0.6% ± 0.3%⁴⁷
 Adjusted equivalent FTT rate on cash out ⁴⁸ 0.6% ± 0.3%

Part CD, Company data

\$Millions Cash in	\$Millions Cash out	FTT rate on cash in	FTT rate on cash out
7	6	4.62%	5.04%
630	633	0.18%	0.18%
26	26	5.54%	5.53%
201	201	6.87%	6.87%
69	80	6.51%	5.62%
221	221	1.17%	1.16%
308	306	0.59%	0.60%
9	9	1.83%	1.84%
160	161	1.18%	1.17%
727	744	1.91%	1.86%
102	101	0.73%	0.74%
1288	1308	1.46%	1.44%
394	399	1.37%	1.36%
10	10	2.61%	2.61%
7	7	2.08%	2.05%
83	82	5.03%	5.12%
730	737	0.44%	0.44%
251	297	1.96%	1.65%
386	356	2.77%	3.00%
141	143	2.75%	2.73%
Total 5748	5827	1.63%	1.61%
mean	1.63%	1.61%	
standard deviation ⁴⁹	6.94%	6.85%	

⁴⁵ = 2.70% / 0.98% and 2.66% / 0.96%

⁴⁶ = 1.63% / 2.76

⁴⁷ For a sample size of 20 the variance is 22%. $(20^{0.5})/20=0.22$

⁴⁸ = 1.61% / 2.76

⁴⁹ It is noted that the standard deviation is large; this indicates a wide variation between cash in/out and GST that is calculated. As what we are interested in is the total tax take, the variation within the sample does not matter, only that the ratio of total GST to total cash flows in the sample is a fair representation of the total population. For a sample size of 20 the variance is 22%. For the five that gave GST amounts, the variance is 45%. The final variance, which is a combination of both, is 50%.

Appendix D, Data on financial transactions in New Zealand

Part DA, GST for the year ended 31 March 2001

Government reports did not provide the GST for the year ended 31 March 2001, however from the reports for the year ended 30 June 2000 and nine months ended 31 March 2000, 2001⁵⁰ this can be calculated. 9 months to 31 March 2001 plus year ended 30 June 2000 less 9 months to 31 March 2000 gives the GST for the year ended 31 March 2001.

(NZ\$ millions)

	9 mth 31 Mar 01	y/e 30 Jun 00	9 mth 31 Mar 00	= y/e 31 Mar 01
<i>GST</i>	11196	14085	10365	14916
<i>Refunds</i>	(4530)	(5214)	(3859)	(5885)
<i>Total</i>	6666	8871	6506	9031

Therefore net GST collected for the year ended 31 March 2001, is NZ\$ 9031 million.

Part DB, Production and distribution GST sales and purchase.

(NZ\$ millions)

Actual GST Sales, purchases, net by month for production and distribution.

Table		BAIM.SAZ	BAIM.PAZ	BAIM.NAZ
Month	Year	Sales	Purchases	Net
Apr	2000	30082.7	21682.4	8400.4
May	2000	31115.9	22522.3	8593.6
Jun	2000	31616.1	23410.9	8205.1
Jul	2000	29893.2	21674.0	8219.2
Aug	2000	30960.2	23285.7	7674.5
Sep	2000	31332.5	23474.9	7857.6
Oct	2000	32728.9	24690.6	8038.3
Nov	2000	34667.4	26339.0	8328.4
Dec	2000	34007.6	25142.2	8865.4
Jan	2001	30062.0	21658.3	8403.7
Feb	2001	31098.9	22646.2	8452.7
Mar	2001	34550.8	25280.0	9270.8
Total		382116.2	281806.5	100309.7

Source: University of Auckland, Learn Database,
New Zealand Time Series,
Statistics New Zealand database INFOS,
Table 1506.01

⁵⁰ Financial Statements of the New Zealand Government for the year ended 30 June 2000 and nine months ended 31 March 2000 and nine months ended 2001, respectively, The Treasury (NZ), <http://www.treasury.govt.nz/financialstatements/>

Part DC, New Zealand Government bond turnover survey

D9 New Zealand Government bond turnover survey

Month	TOTAL		Total
	NR	R/O	
Apr-00	15,437	28,806	44,242
May-00	18,619	36,862	55,482
Jun-00	16,741	23,973	40,714
Jul-00	15,102	24,025	39,126
Aug-00	18,873	33,020	51,892
Sep-00	14,531	21,989	36,520
Oct-00	14,327	24,648	38,975
Nov-00	13,149	23,113	36,262
Dec-00	14,637	27,326	41,962
Jan-01	16,407	36,995	53,403
Feb-01	16,825	33,257	50,082
Mar-01	19,719	44,101	63,820
Total			<hr/> 552,480

Source: Reserve Bank of New Zealand

<http://www.rbnz.govt.nz/statistics/govfin/d9/download.html>

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