

FOUR NEW PATHWAYS TO SUSTAINABLE DEBT

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"The government should create, issue and circulate all the currency and credit needed to satisfy the spending power of the government and the buying power of consumers..... The privilege of creating and issuing money is not only the supreme prerogative of Government, but it is the Government's greatest creative opportunity.The taxpayers will be saved immense sums of interest, discounts and exchanges. The financing of all public enterprises, the maintenance of stable government and ordered progress, and the conduct of the Treasury will become matters of practical administration. Money will cease to be the master and become the servant of humanity."

[US President Abraham Lincoln, Senate document 23, Page 91, 1865.]

"Financial markets have worked hard to create a system that enforces their views: with free and open capital markets, a small country can be flooded with funds one moment, only to be charged high interest rates - or cut off completely - soon thereafter. In such circumstances, small countries seemingly have no choice: financial markets' diktat on austerity, lest they be punished by withdrawal of financing".

Joseph E. Stiglitz "Taming Finance in an Age of Austerity" Published by Project Syndicate, Monday July 12, 2010

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1. INTRODUCTION AND SUMMARY

This paper is the fourth in a series of papers that examine the origin and consequences of unsustainable debt growth and how to better manage debt levels, money supply and inflation in society at large.

The first paper “The Interest-Bearing Debt System and its Economic Impacts” looked at the fundamental cause of exponential debt growth and proposed several key concepts:

- (a) The fundamental debt problem is that the economy has institutionalised the payment to deposit holders of unearned income.
- (b) That unearned income takes the form of interest paid on bank deposits.
- (c) Interest paid on bank deposits creates systemic inflation and exponential debt growth.
- (d) Orthodox economic theory fails to provide an effective mechanism to manage either systemic inflation or exponential debt growth.
- (e) There has been a financial incentive as well as a psychological incentive for deposit interest to stay in the investment sector.
- (f) Culture and institutional “capture” of the debt debate has prevented rational discussion of the debt problem.
- (g) Sustainable debt levels can only be achieved by removing most, if not all, new deposit interest.
- (h) Quantitative analysis can be provided using a new debt model of the economy based on a revised form of the Fisher Equation of Exchange.

This fourth paper is dedicated to offering practical economic solutions that avoid most systemic inflation and unsustainable exponential debt growth.

Section 2 sets out the major issues that are involved when reducing or removing deposit interest from the debt system to stabilise debt levels and avoid inflation.

Section 3 looks at options to reduce or remove deposit interest from the financial system. It also examines solutions for managing foreign debt and exchange rates as well as the potential role of local currencies

Section 4 studies the equity issues involved when deposit interest is reduced or removed.

Section 5 reviews the effect on the public sector of reducing or removing deposit interest.

Section 6 compares economic performance with and without deposit interest using Section 3 Option (B) for comparison with the existing financial system.

The comparison between Option (B) and the current financial system shows conclusively that Option (B) will rapidly bring debt under control and change the SHAPE of the productive economy. Option (A) will produce the same result, but more slowly, while Option (C) will do so more quickly. The proposals in Options (A) to (D) in section 3 are not especially unusual. They have all been used before in one form or another but they have never been linked within a coherent economic framework until now. An instrument such as the Foreign Transactions Surcharge (FTS) proposed in the Options is essential in debtor countries to provide the interest-rate autonomy needed to reduce or remove deposit interest from the banking system and bring debt growth under control.

2. MAJOR ISSUES IN REDUCING OR REMOVING DEPOSIT INTEREST

The first paper “The Interest-bearing Debt System and Its Economic Impacts” concluded that the world’s debt problem and exponential debt growth arise from the payment of interest on deposits. That interest represents unearned income. It is paid by borrowers to deposit holders through the banking system even though the borrowers get no legal consideration for the deposit interest they pay. Deposit interest produces nothing, but it shifts consumption capacity from debtors to the investment sector or paper economy as it is often called, increasing inequality in society at large. This is discussed in Section 4.

Since the debt problem arises from deposit interest, a logical solution to eliminating excessive exponential debt growth is to reduce or remove deposit interest from the banking system. While a range of options is available to reduce or remove deposit interest, a number of issues associated with doing so need to be considered.

Any decision to substantially reduce deposit interest or remove it from the financial system implies interest rates at or close to the average spread¹ of the licensed deposit taking banks. Under the existing financial system the spread that represents the banks’ costs and profit as well as occasional changes in their provision for bad debts, is unstable². A typical average figure for the bank spread in a stable financial environment in New Zealand would be around 2%. An interest rate structure around 2% would benefit business and consumers because it would substantially reduce their costs, encourage productive investment and, according to the debt model², almost eliminate systemic inflation, a key element of the model. Despite those benefits low interest rates have potential downstream effects that fall broadly into four groups:

1. In the existing privately owned for-profit banking system low interest rates will increase the demand for new consumer credit increasing the circulating debt and unproductive “bubble” lending (part of the circulating debt Mcd in the debt model²). That would increase price inflation *once the capacity in the productive economy has been fully utilised*.
2. In countries like New Zealand that have large accumulated current account deficits and are heavily dependent on offshore borrowing, low interest rates make continued offshore borrowing to fund the nation’s foreign debt more difficult.
3. Lower interest rates mean higher bond prices.
4. Some sections of the community, particularly retired people on “fixed” incomes such as national superannuation, depend upon deposit interest to augment the basic lifestyle their fixed income allows.

The four groups are now considered in turn.

1. Price Inflation

There are only two sources of inflation in the debt model.

¹ The difference between a bank’s lending rate and the funding rate of interest it pays on deposits.

² http://www.nzae.org.nz/conferences/2009/pdfs/The_Ripple_starts_here_1694-2009_Finishing_the_Past.pdf. Non-members can access the paper by Google search: “NZAE The Ripple Starts Here “ (use “quick view”): Table 1, p 19 shows wide variations in bank spread.

The first source is inflation arising from deposit interest. That automatically reduces towards zero as deposit interest rates reduce towards zero and so need not be further considered at this point. Inflation in the price of existing assets in the investment sector will also fall towards zero, stabilising house prices and ensuring the investment sector expands in parallel with the productive economy.

The second source of systemic inflation is the injection of new consumer bank debt or “savings” (including non-tax based superannuation income) into the circulating debt (Mcd in the debt model). Such injections increase the amount of circulating debt Mcd^3 without any corresponding production of goods and services. The orthodox use of interest rates to manage inflation is by definition excluded by the requirement to maintain low or zero deposit interest. Other regulatory instruments will be needed to restrain consumer debt growth. These are discussed later in the paper.

2. Current Account

Countries with a current account deficit have to borrow offshore to support their debt, creating a continuous cycle of refinancing their existing foreign debt, adding new debt or repaying old debt. In a world of profit-based debt financing, the debtor is dependent on the willingness of the lender to lend. Foreigners lending to New Zealand expect stability⁴ and they expect to make a profit from their investment. The willingness of foreign investors to lend depends largely on the interest rates they can get elsewhere, and upon the perceived lending risk that is generally dictated by the major international rating agencies. In New Zealand’s case, currency volatility forms a significant part of risk assessments⁵ (Rose 2009). There is some trade-off between improved stability and lower volatility on the one hand and profit expectations on the other hand. Despite that, profit expectations remain largely outside an individual nation’s control, especially if it is small, like New Zealand, because small countries have little influence over the world economy or major world events. Managing the current account to reduce the perceived lending risk becomes essential to a country’s ability to successfully reduce or eliminate deposit interest. Preferably the debtor country’s current account should become positive enough to enable that part of the accumulated foreign debt that is not progressively monetised to be repaid within a reasonable time.

3. Bond and Securities Market

Bonds and Treasury Bills are usually sold on the basis of a coupon (interest) rate that applies to the face value of the loan. When bonds and bills are traded, their yield (or actual interest rate) goes up or down according to their price. When interest rates fall, the yield falls and so the price must rise. Bond and Bill prices in most small countries like New Zealand have always been subject to substantial price fluctuations. Interest rates

³ From the revised Fisher equation in the debt model², $PQ(d) = Mcd * Vcd$ so that assuming the structural component Vcd remains constant and production $Q(d)$ is also constant (because it has reached its maximum), the price level P becomes a direct function of Mcd .

⁴ That would be greatly advanced by limiting or removing inflation from the New Zealand economy and better quantitative management of new credit as proposed in the debt model

⁵ New Zealand is prone to volatility in its exchange rate because it is one of the most trade-dependent developed nations and its exports are mostly commodity based. Commodity prices can vary quite widely over a relatively short space of time. New Zealand is small enough to be disproportionately affected by unrestricted speculative capital flows.

fluctuate widely as a result of the orthodox financial policies of the government and Central Bank. The outcome is that most bonds in countries like New Zealand have a relatively short maturity date, usually not exceeding five years. Fairly abrupt changes in interest rates have proved sustainable in the past. With careful planning, further reduction of deposit interest below usual historic levels will be sustainable in the future⁶. Reducing or eliminating deposit interest will not reduce interest rates toward zero; only deposit rates. Bank profitability will be unaffected though the exponential growth of bank debt will slow, producing a stable and productive, yet potentially fast-growing economy.

4. Fixed Incomes

Many household deposits belong to elderly retired people who have little income other than their government superannuation. As deposit interest falls, those people may become more motivated to invest what deposits they have in productive investments instead of leaving their money in the bank. Many see such investment as risky, particularly in the light of recent international turmoil and, in New Zealand's case, the collapse of many non-bank finance houses. Measures may be needed to protect those incomes or offer reasonable security for their investments⁷.

Very low deposit rates are far from unknown within the existing financial system. Japan, one of the world's largest economies, has functioned satisfactorily without significant deposit interest for more than a decade. As of May 2010, 10-year deposit rates on deposits of more than 10 million Yen (NZ\$150,000) were about 0.5% ranging downwards for smaller deposits and shorter terms, for an average of perhaps 0.1% or less⁸. Japan has socialised some of its total debt (defined for simplicity as private credit and public sector credit less its net international investment position) which is about 2.8 times its Gross Domestic Product (GDP)⁹. New Zealand's corresponding total debt is 2.5 times GDP. Japan has achieved real per capita economic growth generally similar to New Zealand, but with zero inflation over the past decade and with little expansion of the price of existing assets¹⁰, while at the same time maintaining a strong export performance and currency and an equally strong social security system despite its ageing population. The main difference between New Zealand and Japan is that Japan retains sovereignty over its exchange rate despite its economy being among those most seriously affected by the recent world recession. Japan has been able to achieve this because its large current account surplus has allowed the Japanese Government to maintain high levels of public

⁶ Though, as of March 2010, 1/3 of New Zealand's Government stock of NZ\$44.1 billion was held by non-residents. and another ¼ was held by foreign owned registered banks. Source: RBNZ Table D2

⁷ In New Zealand, regulatory supervision of non-bank institutions has been improved, but it may need further attention

⁸ Source: Bank of Japan: www.boj.or.jp/en/type/stat/boj_stat/tento/te100602.htm. In Japan, call deposits M1 make up about half of M3 whereas in NZ M1 is about 11% of M3 – there's little incentive in Japan to invest in long term deposits.

⁹ As of March 2010, Japan's net international investment position (including reserve assets) was plus Y269 trillion, and roughly 57% of its GDP compared with New Zealand's accumulated *deficit* of almost 90% of GDP. Japan's GDP for the year ending March 2010 was Y 476 trillion, its public debt was Y 883 Trillion and private debt (May 2010) including "other surveyed domestically licensed banks" was about Y 737 Trillion giving a total debt of Y 1351 Trillion or 2.8 x GDP compared with 2.5 x GDP in New Zealand. [As at early June 2010, 60.5 Yen = NZ\$1, 91 Yen = US\$1] Data source: Bank of Japan statistics tables Time-Series Data.

¹⁰ House prices in Japan have fallen as private debt has been replaced by public debt and citizens use some of that public debt to reduce household indebtedness.

investment at very low cost without any serious risk of inflation¹¹. Japan's circumstances are historically unusual. It is unlikely debtor countries like New Zealand can reduce or eliminate deposit interest without transforming their financial systems.

3. OPTIONS

There are several workable options available to reduce or eliminate deposit interest from the banking system. They can be classified under four general headings, each of which will be discussed in detail. They are discussed in relation to the debt model shown below which is the same as the one described in "The Ripple Starts Here..." (cited at footnote 2) and the first paper of this series "The Interest-bearing Debt System and its Economic Impacts" cited in the introduction.

$$Md = (Ddc + Dca - R) = Mp + Ms + Mv = (Dca + Mcd) + Ms + Mv \quad (1)$$

subtracting Dca from both sides of equation 1 produces:

$$Ddc = Mcd + R + Ms + Mv \quad (2)$$

And from the original Fisher Equation ($MV = PQ$)⁹

$$McdVcd = PQ(d) \quad (3)$$

where:

Md = total debt comprising domestic credit Ddc (including in New Zealand only) Kiwibank loans and advances + Accumulated Current Account deficit Dca less Reserve Bank Capital Reserves R

Ddc = Domestic Credit¹² + (in New Zealand) Kiwibank loans and advances

Dca = accumulated current account debt,

R = central bank capital reserves¹³,

Ms = debt held by productive sector to fund the unearned income on the total debt,

Vcd = speed of circulation of circulating debt Mcd physically used for domestic production,

Mcd = circulating debt physically used for domestic production = $(Md - (Ms + Dca + Mv))$.

Mp = $(Dca + Mcd)$ = total debt not being Ms or Mv

P = prices,

$Q(d)$ = quantity of national product (GNP) produced by debt Mp – (In New Zealand that is only slightly different from GDP)

Mv = provision for lending that is not part of the productive economy and not part of Ms . It is debt required to replace withdrawals from Mcd as "savings" in orthodox economic terms. There can be no savings within the productive economic cycle itself, otherwise the cycle cannot be self-clearing¹⁴.

In the context of the four Options (A) to (D) listed below, creation of new debt is to be constrained to meet the needs of the productive economy but there will still be "savings" so Mv may still increase. In this paper, the accumulated current account deficit Dca has also been removed from both sides of the model and from the calculation of Ms ¹⁵.

$$\text{From equations (1) and (3) } (Md - Dca) = Mcd + Ms + Mv = PQ(d)/Vcd + Ms + Mv \quad (4)$$

¹¹ In effect, private sector debt has been replaced by public sector debt.

¹² Reserve Bank of New Zealand (rbnz) Table hc2; RBNZ private email

¹³ In this preliminary work the RBNZ "capital reserve" has been used but further research is needed to determine which reserves (if any) should best be incorporated in the model.

¹⁴ See especially Figures 1 and 2 of Paper 1.

¹⁵ Paper 1 Figure 4 suggests the current account deficit dCA from each production cycle is "carried" in the productive debt Mcd . Since dCA already includes interest on Dca , the model calculations in the 2009 paper and in Paper 1 appear to have double counted it. So Dca has (for the time being at least) been deducted from the original model equations (1) and (3) above and from the calculation of Ms .

Using the differential form of equation (4)¹⁶

$$d(\text{Md}-\text{Dca})/dt = d/dt [\text{Mcd} + \text{Ms}+\text{Mv}] = d/dt [\text{PQ}(d)/\text{Vcd} + \text{Ms}+\text{Mv}] \quad (5)$$

where:

$d\text{Md}/dt$	= the change in total debt Md over time dt
$d\text{PQ}(d)/dt$	= the change in nominal GDP over time dt
$d\text{Ms}/dt$	= the change in accumulated deposit interest over time dt
$d\text{Mcd}/dt$	= the change in circulating debt physically used for domestic production over time dt $d/dt (\text{Ddc}-\text{R})$ where Ddc and R are as described above
$d\text{Mv}/dt$	= the change in the provision for lending backing “savings” that is not part of the productive economy and not part of Ms , over time dt .
Vcd	= speed of circulation of Mcd (for most practical purposes Vcd can be assumed constant over a short time dt)

As the rate of change of accumulated net deposit interest, $d\text{Ms}/dt$, approaches zero, and leaving aside $d\text{Mv}/dt$, equation (5) reverts towards the original Fisher equation ($\text{MV}=\text{PQ}$), in which Vcd tends to be structural. In a stable financial system, Vcd varies only gradually over time. In all the options (A) to (D) below, the change of total debt $d\text{Md}/dt$ is both known from regular data and controllable, through the use of reserve ratios, without changing interest rates. Vcd can be estimated from long-term trends¹⁷. The change in nominal gross domestic product (GDP) then becomes a direct function of the change $d(\text{Md}-\text{Dca})/dt$ of the domestic debt ($\text{Md}-\text{Dca}$) plus “savings” $d\text{Mv}/dt$ that can also be estimated¹⁸. The function $d(\text{Md}-\text{Dca})/dt$ is then directly related to the change $d/dt (\text{Ddc}-\text{R})$. In a stable system, the reserve bank reserves R will not need to change either. In that special case when $\text{R}=0$, the change in nominal GDP becomes a direct function of the change in domestic credit $d\text{Ddc}/dt * \text{Vcd}$, exactly parallel to the original Fisher Equation of Exchange. The change in GDP can also be readily calculated from the debt model when $d\text{Ms}/dt$ is not zero.

Whatever option is chosen from among those given below the debt model offers a solid platform for accurate calibration and management of the financial system. The model relates to the quantity of GDP. It does not seek to say anything about the quality of that output, which remains a matter of public debate and government policy. Common sense would suggest that the more socially and environmentally useful the productive output is, the better the wellbeing of the nation is likely to be.

Typical options in ascending order of effectiveness are:

(A) Maintaining the existing banking system as it is but with the re-introduction of a supplementary reserve ratio on deposits (and, should they ever be needed, interest rate caps) to manage the amount of new lending. The supplementary deposit ratio will be applied over and above the existing Basle III capital adequacy requirements. In debtor

¹⁶ As set out in “The Ripple Starts here...” Referenced at footnote 2

¹⁷ The accuracy of estimating Vcd is affected to some extent by the predictability of debt growth. The data shows that rapid increases in Mcd during economic booms do reduce Vcd somewhat (as in NZ in 2005) while the slowing of Mcd growth during recessions (as in NZ 1993, 2001, 2009-10) tend to reduce Vcd a little. Stable growth patterns will allow accurate assessment of Vcd .

¹⁸ In New Zealand for example, the Government Superannuation fund, Kiwisaver, and the Government’s Superannuation support fund usually called the “Cullen Fund dominate $d\text{Mv}/dt$. Private Savings trends are also reasonably well known.

countries this must be accompanied by some means to manage both the current account deficit and the exchange rate, such as a universal, variable, temporary and tax-neutral foreign transactions surcharge (FTS).

(B) As for Option (A) but using the central bank instead of private banks to supply some new public debt to meet the needs of the government, and/or to issue interest-free electronic cash (E-notes).

(C) Vesting all credit and money creation in the government operating through its central bank as in the quote from President Lincoln at the beginning of this paper, together with a universal, variable, temporary and tax-neutral foreign transactions surcharge (FTS) as in Options (A) and (B)

(D) Any of Options (A) to (C) in conjunction with formally constituted and taxed local currencies.

While the progression from (A) to (D) may offer a viable route for progressive financial transformation, the combination of (C) and (D) would ultimately offer the most powerful benefit and greatest stability to the domestic economy.

Legislation for each of these proposals can readily be drafted but is outside the scope of this paper.

The four graded options are now considered in turn.

OPTION (A): EXISTING SYSTEM WITH NEW SUPPLEMENTARY DEPOSIT RATIO AND MANAGED CURRENT ACCOUNT AND EXCHANGE RATE

Retaining the existing system is the least flexible of Options (A) to (D) because economic resource allocation remains, in the first instance, at the discretion of the private banking system, moderated, as now, by a wide range of tax incentives and grants administered through the budget according to the government policy of the day.

The underlying concept of Option (A) is that the Reserve Bank would set an Official Cash Rate (OCR), on a regular basis, as it does now, but with a specific supplementary cash reserve requirement over and above the existing prudential capital adequacy requirements specified by the international financial institutions, particularly the Basel III Accord¹⁹.

The mechanism used to provide the supplementary reserve requirement is of secondary importance as long as it restricts new bank lending to prevent bubble formation. The reserve could be a percentage of its net capital assets or net worth.

The cash rate might be, for example, 0.5%. Interest rate caps would only be contemplated if the claims interest rate (the lending rate) charged by the registered banks exceeds a target maximum interest rate specified by the Central Bank from time to time²⁰. The

¹⁹ The Basel III accord revised the risk based capital requirements for the international banking system, <http://www.bis.org/publ/bcbsca.html>

²⁰ Rather like present inflation targets-for example, with a cash rate of 0.5% and an acceptable spread of about 2%, an interest rate cap might be specified if average claims (lending) rates exceed, say, 2.75%

Official Cash Rate reduction from present levels could be phased in over time, but quite a few developed countries already have lower official cash rates than New Zealand so the proposal is not, of itself, unusual²¹.

To give a practical example, suppose Option (A) is in place and that $dDca/dt$, dMs/dt and dR/dt in equation (5) are all zero, that domestic credit is NZ\$294.2 billion (New Zealand, March 2010) and that the bank debt multiplier under the Basel III accord is 10 (so the banking system risk-based capital base is, say, roughly NZ\$29 billion²²). An increase in the reserve ratio of just 0.01% of domestic credit would require extra capital reserves of NZ\$29 million to be deposited by the registered banks with the Reserve Bank. Compared with the status quo, that would restrain lending by NZ\$290 million or 0.15% of the NZ March 2010 gross domestic product of NZ\$186 billion. That makes banks' capacity to lend sensitive to the proposed supplementary reserve asset ratio.

The supplementary reserve ratio would be operated in conjunction with the banking system to ensure the creation of new debt increases at the (almost) inflation-free productive growth capacity of the economy, say, 5% or NZ\$ 9 billion a year. In equation (5) above, five percent growth would require a change in the total debt Md of about NZ\$ 7 billion (NZ\$9 b growth divided by an assumed value of Vcd of 1.3)²³. This should be compared with recent historical total debt growth in New Zealand of closer to NZ\$ 30 billion/year including the current account deficit²⁴. If the cash rate were 0.5%, there would also be a change in dMs/dt of about NZ\$ 1.2 billion²⁵ to add to the debt growth. That NZ\$ 1.2 billion provision for the increase in accumulated deposit interest added to the NZ\$ 7 billion needed to produce the 5% growth, would bring the total debt increase to roughly NZ\$ 8.2 billion, once the current account deficit is removed as discussed below; much less than has been the case under current economic policy in recent years.

Five percent real economic growth, representing NZ\$ 8.2 billion of new debt, with 0.5% inflation in the productive economy and about 0.5% inflation in the investment sector sounds a lot better than in New Zealand in recent years where the total debt growth has been more than NZ\$30 billion, real GDP growth around 2.5%, investment sector inflation up to 10% and CPI inflation 2% or more²⁶.

Eliminating the so-called fractional reserve banking system is now getting mainstream attention. Mervyn King, the Governor of the Bank of England is reported to be raising the possibility of eliminating the fractional reserve system altogether²⁷. "If [Basel III] is a

²¹ As discussed later in this section, time may be needed for the various structural adjustments to "bed in" and it may turn out to be prudent to reduce interest rates and increase the FTS (page 9) in parallel. The implementation of Options (A) to (D) will need to be integrated to avoid capital flight.

²² For illustration – detailed figures are at Reserve Bank of New Zealand Statistical Series G3

²³ Neither Vcd nor Mcd has been accurately estimated for New Zealand yet because the indicative debt model application provided in the papers does yet accurately reflect the effect of taxation on gross deposit interest.

²⁴ Except for the March year 2010 when it was still more than NZ\$14 billion despite nominal GDP growth of just \$1.3 billion (which included 2% of GDP, or NZ\$3.7 billion, inflation).

²⁵ Md of about NZ\$300 billion as at March 2010 times 0.5% less an assumed average tax rate of 25%= 1.2b

²⁶ The profound economic impact of these proposals is shown visually in Section 6 of this paper.

²⁷ BBC News 25/10/10 "Mervyn ponders abolition of banking as we know it."

giant leap for the regulators of the world, it is only a small step for mankind. Basel III on its own will not prevent another crisis."

The second “leg” of Option (A) involves at least one new instrument to manage the current account deficit and the exchange rate. One possibility is to use an automatically collected foreign transactions surcharge or FTS, which would also be simple to administer²⁸. It has only very rarely been used in the past²⁹. Introducing a financial instrument such as the FTS is essential if offshore borrowing and interest costs are to be reduced. Orthodox monetary policy efforts to manage the exchange rate and current account using the Official Cash Rate (OCR) have failed, in part because financial deregulation has facilitated unrestricted speculative capital flows³⁰. Some economists may object that a unilateral FTS will not work because banks and traders can evade the surcharge by “bundling” transactions and reporting, say, only a single daily settlement sum, or else trading in New Zealand dollars offshore. Such objections, even if they apply to internet or international card transactions, are a regulatory matter rather than one of policy or principle. There seems to be no valid reason why, with the availability of modern technology, individual reporting and processing of transactions should not be required in New Zealand or, where relevant, by offshore correspondents and affiliates, backed by a legally enforceable regulatory framework³¹.

A broader issue is whether a foreign transactions surcharge would contravene international financial agreements. There are provisions in the relevant international World Trade Organisation (WTO) protocols for countries to protect their balance of payments. Relevant material is contained in the Appendices to this paper. The GATT legal text, Article XI clause 1 (Appendix 5) appears to specifically permit taxes to be applied. Provision of funding is a service that falls under the GATS protocols (Appendix 2).

The so-called policy “trilemma” referred to in paper 1 (cited in the introduction to this paper) is important to any debate on the FTS. Obstfeld (1998) put it this way: *“In most of the world's economies, the exchange rate is a key instrument, target, or indicator for monetary policy. An open capital market, however, deprives a country's government of the ability simultaneously to target its exchange rate and to use monetary policy in pursuit of other economic objectives”*.

If the current account is to be managed, some form of exchange management will be required. To restructure the financial architecture as proposed in this paper, a tool such as the FTS will have to be inserted at the currency exchange interface. Failure to do so would condemn the world to economic ruin. It is now widely, if not yet universally, acknowledged the current economic system is deeply flawed as suggested or implied in recent articles from the Bank for International Settlements, the World Bank, and leading economists like Joseph Stiglitz and Paul Krugman.

²⁸ The “beauty” of FTS is that it applies to outward capital flows, not inward capital flows. Moreover, FTS is not a “restriction” on capital flows, it is a temporary universal tax on all outward transactions.

²⁹ It was used successfully in Tonga in the 1980's, but repealed when it had done its job. However, the Tongan FTS was neither variable nor tax neutral. Source: personal discussion with the former Tongan Minister of Finance.

³⁰ As discussed briefly at page 12 of Paper1 referred to in the introduction to this paper.

³¹ Setting the parameters for that regulatory framework falls beyond the scope of this paper.

The exchange management instrument(s) would apply to all outward exchange transactions, not just outward capital flows.

The proposed FTS is not a tariff or trade barrier of any kind. Nor is it a restriction on capital flows as such. It is a temporary because it will apply only until the net foreign debt has been repaid and it is a fiscally neutral tax on **all** outgoing exchange transactions. Moreover the FTS would be variable. It goes no further than the specified objective of balancing the current account and progressively repaying the accumulated net foreign debt. This proposal mirrors the historical position that existed prior to the removal of the US\$ gold peg in 1971³², and it is also very similar to the position advocated by J.M Keynes and the British delegation at Bretton Woods in 1944³³.

Financial receipts from the surcharge would be used to offset a corresponding amount of domestic taxation (for example by reducing GST), to make the surcharge tax-neutral apart from any receipts put towards foreign debt reduction. Its intent is to correct the current account, part of the balance of payments as defined in the legal WTO, GATT, GATS texts, by removing the existing subsidy enjoyed by those engaging in foreign currency transactions at the expense of those who do not engage in such transactions or engage less in them. Those using foreign currency in New Zealand will, for the first time in decades, pay the actual price for doing so. The subsidy of heavy foreign exchange “users” by foreign exchange “savers” may be indirect, but it is very real and very large. New Zealand’s large current account deficits and heavy foreign debt burden mean its interest rate structure is considerably higher than in other comparable countries with an AAA international debt rating, keeping both domestic debt servicing and the exchange rate well above what they need to be, seriously affecting the country’s potential economic performance.

The overall saving to the wider New Zealand economy from the introduction of an FTS is likely to be more than the annual current account deficit itself³⁴. In addition to the obvious reduction in interest costs and the amount of foreign debt there are consequential downstream benefits to the economy of a country like New Zealand from using an FTS to properly manage its current account:

A foreign transactions surcharge would cause the exchange rate to fall towards a stable base level allowing exports to increase and imports to decrease, providing a more even playing field for local manufacturers and producers³⁵.

³² Under the gold standard, capital flows do not appear to have been directly restricted, but they were influenced by the exchange rates fixed from time to time.

³³ The famous Bretton Woods meeting was where the basis for the post World War II financial architecture was agreed among the allied powers. The British position was effectively vetoed by the United States that sought (and obtained) the broadest possible global role for the United States dollar as the world’s reserve currency.

³⁴ Each 1% in interest rate alone represents nearly NZ\$ 4.7 billion per year on a total debt of around NZ\$466b, including net foreign debt, as at March 2010. Estimating the actual economic effect of FTS is outside the scope of this paper, but, according to the System of National Accounts, every dollar off the current account deficit is a national “saving” before taking into account other downstream benefits.

³⁵ Rose (2009) notes that, historically, exchange rates have relatively little influence on imports, but it is likely that the FTS would act more directly on the import sector because it is visible, being drawn directly from bank accounts.

Introduction of the FTS policy could allow the removal of all remaining tariffs and subsidies in the New Zealand economy making it one of the very few tariff-free nations in the developed world. The FTS would make imported goods more expensive and locally produced goods relatively cheaper thereby stimulating the domestic economy. There would be no further NZ dollar currency speculation. The FTS would be higher than any conceivable short-term gain from present speculative capital flows. At the same time, long-term capital investment should not be affected³⁶.

The FTS can also be seen as a correction designed to offset the unmanaged volatility in New Zealand's exchange rate since the currency float in 1985. In New Zealand in March 2008 the Trade Weighted Index (TWI 5) that reflects the country's exchange rates against the currencies of its five major trading partners stood at 71.6. A year later in March 2009 it was 53.8, a fall of 25%. As of mid June 2010 it was back up to 67.7.³⁷ An FTS starting, say at 10% would, on the basis of current total payments to the rest of the world of NZ\$77 billion³⁸, realise perhaps NZ\$6 billion in FTS surcharge income³⁹. That would be enough to reduce GST to 10% from 15% and begin foreign debt repayment⁴⁰. A higher level of FTS might be needed during a transitional period to reduce any initial tendency toward capital flight and to manage the Keynesian "transfer problem"⁴¹. The government, in agreement with the central bank, would adjust the FTS as and when required. A 10% FTS would induce a significant adjustment in the prevailing Trade Weighted Index (TWI) though probably less than the short term New Zealand dollar exchange rate volatility in recent years.

There would be a substantial reduction in interest rate premiums as the current account is brought under control, foreign debt repayment begins and inflation is reduced to very low levels. Rose (2009) notes: "*Effectively the market is pricing country and/or currency risk into national interest rates*". On the other hand, the New Zealand dollar "value" of foreign debt would rise, so it would seem to be prudent to have as much debt as possible denominated in domestic currency. To the extent that is not possible, Bertram (2009) notes that "*In the worst case, where no rolling over of offshore funding was possible at all, the banks would be obliged to raise New Zealand dollar funding to pay down their foreign-currency debt*"⁴². That would produce a sharp fall in the exchange rate, and could be one argument in favour of introducing Option (A) progressively. The FTS is a very powerful economic tool because of its redistributive impact within the domestic economy⁴³. Its introduction would also prevent a reversal of the so-called "carry trade"⁴⁴

³⁶ It might be possible to have a separate FTS rate for speculative capital flows. This paper arbitrarily assumes a single rate and that speculative flows will cease.

³⁷ Source: Reserve Bank of New Zealand statistical series B1. The series base is 100 back in 1979 when exchange rates were still fixed.

³⁸ New Zealand National Accounts year ended March 2009.

³⁹ The outward payments would fall from their present level and inward receipts would increase.

⁴⁰ This could be done through some form of tender process. The worked indicative example for Option (B) at Table 1 in Section 6 is conservative and includes only very modest repayments from the FTS receipts.

⁴¹ The Keynesian transfer problem implies the current account should go far enough into surplus to meet *all* transitional foreign investment claims, though that might be optimistic in the short term.

⁴² Rather like the United States has been doing since 2008.

⁴³ On the other hand, debtor countries could be better off "biting the bullet" and getting their financial restructuring out of the way. Since the volume of exports cannot be rapidly increased, the FTS must rely on changing the relationship between the NZ\$ value of exports and imports.

once domestic interest rates have been reduced to very low levels.

The share of the New Zealand current account deficit represented by interest and profit on foreign, mainly Australian, bank investment has increased from 33% in 1997 to 69% in 2008. Nearly all New Zealand's current account deficits in recent years have been funded by capital inflows from the foreign owned banks. Bertram (2009) notes that:

New Zealand's current account deficit basically reflects the servicing requirements on its overseas debt.

Banks would quickly unwind their dependency on foreign debt when the funding rate falls below what they are paying offshore. Transitional arrangements may be needed to promote the replacement of foreign funding with domestic funding.

The comparative example given in Section 6 offers the possibility of foreign debt monetisation but does not incorporate it as a major feature. Domestic currency monetisation could change New Zealand's current account position quickly.

Some academic literature supports the need for some form of foreign exchange management to correct the balance of payments and the current account. Similar policies, such as "pegged" exchange rates, have been widely used by major countries around the world, including Japan and China. The use of the United States dollar as the world's "reserve" currency also comes into the same general category. The FTS maintains a full currency float, but manages outward financial flows.

Preston (2009) argues that the levels of the New Zealand current account and foreign debt are substantially due to (over)reliance by the New Zealand banking system on external borrowing. When times are good and offshore funding is plentiful the TWI rises and offshore interest rates fall. When times are bad and offshore funding is harder to obtain, the TWI falls and offshore interest rates rise. To deal with such instability Preston (2009) proposes (page 13) an alternative monetary policy framework that would extend existing monetary policy beyond its present emphasis on inflation measured by the Consumer Price Index (CPI) to take into account "*trends in domestic expenditure, trends in asset prices, maintaining a sustainable trend in the balance of payment, an exchange rate which is moving broadly in line with economic fundamentals*". To achieve this Preston proposes Mandatory Deposit Ratios (MDR) *for foreign currency deposits* to help manage private sector credit expansion.

Option (A) as it is outlined above is much broader in scope than Preston's MDR because it would operate on two levels. At the domestic level, supplementary bank deposit ratios will be applied to manage domestic lending. At the exchange rate interface, the FTS would be used to manage external flows. Option (A) is designed to enable very low domestic deposit rates to be sustained whereas Preston is mainly seeking to address the large-scale offshore borrowing by the banking sector. A primary difference is that while Preston's MDR, like the supplementary deposit ratio in Option (A), is an instrument of monetary policy, the FTS in Option (A) is a domestic *fiscal* policy.

⁴⁴ The carry trade is the practice of transferring deposits from countries where deposit interest is low to countries where deposit interest is high(er).

OPTION (B): AS OPTION (A) BUT WITH SOME NEW GOVERNMENT FUNDING REQUIREMENTS PROVIDED BY THE RESERVE BANK

Under existing policy, government borrowing is raised at interest through the private banking system. In New Zealand, government and local authority debt, while less than that of many other developed countries as a proportion of gross domestic product, is now rising quite steeply after having been stable in recent years. Central government debt servicing costs are projected to be about NZ\$2.4 billion in the fiscal year ending June 30, 2011⁴⁵ and as much as NZ\$4.5 billion by 2014. Because of the recent recession in New Zealand, those costs are based on an historically low interest rate structure compared to domestic interest rates over the past four decades. Under existing monetary policy the Government debt servicing costs can be expected to rise substantially from their present levels in the medium term.

The New Zealand Reserve Bank Act specifically provides the power to the Reserve Bank to issue currency and to act as Banker to the Government⁴⁶ so there is no reason existing policy cannot be amended to instruct the Reserve Bank to responsibly issue electronic cash currency credits (to be called E-notes in this paper)⁴⁷ and low interest or even interest free debt to replace debt presently borrowed from commercial banks; and for the government of the day to spend that new money and debt into circulation⁴⁸. Brash (1996) noted (page 5) that:

“(T)he Reserve Bank Act does not prevent the government from choosing to override the price stability objective chosen for monetary policy by Parliament, but it does require any government choosing some other objective to tell everybody that that is what their new instruction to the central bank is.”

This proposal does NOT seek to change the inflation objective, but rather strengthen it and add additional viable objectives to manage debt expansion and the exchange rate to permanently stabilise the nation’s financial system. The present Governor of the Reserve Bank of New Zealand, Allan Bollard noted in January 2010:

“(T)he extent of the recent financial crisis showed that inflation targeting monetary policy was not sufficient to guarantee comprehensive macroeconomic stability”⁴⁹.

Such views suggest that despite the historical reluctance of central banks to test new policy concepts, additional instruments could enhance a country’s growth prospects and

⁴⁵ New Zealand Treasury, Budget 2010

⁴⁶ See especially sections 5,8,9,25,34,39.

⁴⁷ Since E-notes become part of the circulating deposits in bank accounts just like deposits arising from debt, their speed of circulation will, unlike notes and coin in circulation, have the same aggregate speed of circulation V_{ed} in equation (5) as debt that can only be used once because once used it must be repaid. V_{ed} might be expected to undergo a gradual structural increase as the proportion of E-notes to debt increases.

⁴⁸ Some low cost debt might be used as well as E-notes to facilitate repayment (amortisation) of capital goods. If debt is not used for capital expenditure, capital repayments would have to be taxed out of circulation, otherwise there would be an inflationary build up of deposits in the banking system. To cope with that, tax rates would need to change whenever there are substantial changes in the rate of capital investment.

⁴⁹ Allan Bollard, speech to Canterbury Employers’ Chamber of Commerce Friday 29/1/2010 reported at <http://tvnz.co.nz/business-news/bollard-reflects-targeted-inflation-policies-3345187>

macroeconomic stability if they are properly designed, while still maintaining tight fiscal responsibility and inflation targets.

The proposed government issued debt does not have to be interest-free. It could even be issued at the same interest rate as private debt. In that case any profit from the bank spread would accrue to the government through the Reserve Bank rather than to private banks. Once the government has spent the new funding into circulation it would become deposits in the banking system just like all other deposits and would be available for lending intermediation by the private banks.

Some experts believed in the past that Reserve Bank funding would be inflationary because it would increase the available excess reserves in the private banking system the way government bond issues do (or did) in fractional reserve credit expansion. Those new excess reserves from creation of new debt funding by the Reserve Bank would then encourage (further) expansionary growth of private bank debt. When direct Reserve Bank funding was used in the past, particularly during the 1930's world depression, there was a vast reservoir of unused capacity in the economy, which meant the additional reserves did not create inflation. The situation in Option (B) is quite different.

In Option (B), any surplus excess bank reserves resulting from new bank deposits arising from the issue of central bank E-notes or credit would be sterilised by adjusting the supplementary reserve ratio established for the banks under Option (A), removing any possibility of inflation arising within the domestic banking system.

The debt model derived from the modified Fisher Equation of Exchange referred to at page 6 of this paper requires an extra term to be added to account for E-note injection because E-notes are not subject to repayment and, unlike debt, can be used repeatedly as long as they remain in circulation⁵⁰.

Some advantages of central bank funding of new government expenditure include:

- It is cheaper than private funding and can be costless, saving billions of dollars each year in interest costs compared with the present system, and savings compared with Option (A), too⁵¹.
- Existing privately issued interest-bearing government debt can be progressively retired as it matures and replaced with publicly issued interest-free debt or E-notes.
- It is easier for governments to prioritise productive resource allocation in the public sector.
- Direct public taxation can be gradually reduced as the economy grows.

The first two points are self-evident. The third is more political. It concerns the role of government in the economy and is outside the scope of this paper. However, the

⁵⁰ E-notes and existing cash are provided for in the general expression of equations (4) and (5) (Manning 2009, referenced footnote 2, page 25) which includes a term $E_0 * V_{e0}$ where E_0 is the electronic cash in the system and V_{e0} is its speed of circulation. V_{e0} is thought to be the same as V_{cd}

⁵¹ The saving is less under Option (A), because in Option (B) the effective net costs of government debt is almost zero. In Option (A), at 2.5% bank spread plus 0.5% deposit interest the cost of \$40 billion of government debt would still be NZ\$ 1.2 billion.

government could choose to use unutilised resources in the economy for infrastructure projects, investment in health and education or other productive investment.

If the New Zealand government were to inject, say, a net \$5 billion/year of direct Reserve Bank funding into the economy, total government debt would, in the long term, still never exceed 56% of GDP, still lower than most other developed countries⁵². There is no particular reason to keep government debt to any arbitrary figure, because its use is almost costless. Japan has been able to sustain public debt of 200% of GDP because its debt costs are low (see page 6). What the appropriate level of public debt, if any, might be for New Zealand would be a political decision. To the extent public debt is responsibly increased, taxation needed to fund good quality public capital expenditure could be gradually reduced⁵³. In New Zealand, on present figures, a NZ\$ \$5 billion per year injection could allow a one-off reduction in total taxation by about 7%⁵⁴, and provide a corresponding economic consumption stimulus of up to 3.5% of GDP⁵⁵. Further tax reduction would depend on how much the public debt and E-note injection can be responsibly increased each year.

One of the major concerns among economists about the vast government debt growth in the United States 2008-2010 is that it has been borrowed through the private banking system without any means other than the Basle III capital adequacy requirements to constrain debt expansion. Some of that borrowing has served to cover bank losses against loan defaults. There has been little new lending to the productive economy so there is no inflation (yet). “Main Street” could be helped as much or more than “Wall Street” if only the government were to adopt Option (B) as set out above, particularly in the issue of E-notes. Otherwise it is hard to see the productive debt Mcd increasing very much in the US over the short to medium term.

OPTION (C) VESTING ALL CREDIT AND MONETARY ISSUE IN A PUBLIC RESERVE BANK OR CREDIT AUTHORITY AS RECOMMENDED BY UNITED STATES PRESIDENT LINCOLN TOGETHER WITH THE FOREIGN TRANSACTIONS SURCHARGE OF OPTION (A)

As recently as World War II, a large part of war expenditure was funded from government debt rather than from taxation⁵⁶. Domestic consumption was reduced through the issue of War Bonds, price controls and rationing. In many cases the total public debt was far higher in countries like Britain, and Canada than it is today. The debt was repaid out of post-war economic growth. The United States is today paying for its foreign wars and providing packages to help offset the recent economic crisis through the creation of new public debt. The amount of public debt in the United States and its use are controversial. However, the total of the US public debt is sustainable *as long as the interest on the debt is kept low*. Application of the proposals set out in this paper would

⁵² In Option (A), the assumed growth was \$ 9 billion/year. If the government injected NZ\$ 5 billion/year out of that \$9 billion increase in GDP, the total government injection in the long run could not be more than 5/9 of the total debt, or less than 56%.

⁵³ The worked comparison in Section 6 shows public debt could, under Option (B), potentially be fully repaid quite quickly.

⁵⁴ NZ\$ 5 billion/total gross government revenue (budget 2010) of NZ\$ 70 billion= 7%

⁵⁵ NZ\$ 5 billion * Vcd 1.3 /GDP NZ\$ 186 billion = 3..5%.

⁵⁶ As noted in paper 1, war expenditure has been a common cause of sharp increases in public debt for centuries.

enable the cost of public debt there to be kept to a minimum and the debt to be progressively repaid as it was after WWII. The difficulty for countries like the United States and New Zealand is not the debt level so much as who holds the debt. The United States, like New Zealand, and unlike Japan, is becoming overly reliant on foreign debt leaving the domestic economy at risk of exchange rate uncertainty.

Key underlying issues when deciding what levels of public debt are acceptable are the price of that debt, and the ideological concept that private debt is “good” and public debt is “bad”. As long as interest rates are used as the primary, if not the only instrument to manage inflation in modern economies, the cost of public debt purchased from the private banking system is likely to be high and volatile. That in turn creates uncertainty in bond markets and leads to recurrent financial crises as demonstrated in Paper 1.

Private banks oppose public funding of public debt because they want debt levels to expand as quickly as possible to increase their profit. Their profit comes from the spread on their loans, which is the difference between the interest they charge on their loans and the interest they pay to their deposit holders. As a general rule, the more debt there is the more profit the banks make. In the recent deregulated lending environment the large (mainly US banks) went beyond their existing physical debt base to create a vast pool of virtual debt in the form of complex derivatives from which they also sought to profit. The system collapsed because the productive economy could no longer fund the profit expectations of the bloated investment sector⁵⁷.

Public credit and money creation will tend to reduce the capacity of the private banking system to increase total debt in the financial system. That is essential because the present financial system has failed to adequately manage the exponential growth of debt. Slower debt growth could reduce the banks’ future profit growth, but it will not affect their profit margin because the proposals in this paper address the interest rate on deposits, not the bank spread.

Under Option (A) the growth of bank profits is subject to the relatively minor restraint that less new debt will be needed. Under Option (B) the growth of bank profits might be reduced further depending on the amount of public E-note and debt issued. In both Options (A) and (B) the nominal reduction in debt creation is offset by much higher economic growth as well as minimal inflation and, possibly, lower taxes. The economy will grow faster, so there will still be some growth in bank deposits and some growth of bank profits.

Option (C) is different from Options (A) and (B) in that the private banks would operate as intermediaries in the financial system rather than issuing new debt themselves. Under Option (C) the government would issue all the new E-notes and debt needed to achieve optimal economic activity by spending them into circulation. The money would then be deposited into the banking system in the normal way and the private banking system would operate like a savings bank, redistributing deposits to borrowers using existing lending criteria but with lending rates limited as set out in Options (A) and (B).

The debt model (equation (5) above) supporting this paper shows that to achieve 5% growth in New Zealand the new debt issue (based on March 2010 figures) might be about

⁵⁷ These matters will be discussed fully in a later paper.

NZ\$ 7 billion, (page 10) a lot less than recent increases in domestic credit and perhaps one-third the growth of the total debt base in recent years after taking into account the annual current account deficit. The required reserve ratio of the private banks will gradually increase as more public debt is introduced to the system, until it ultimately reaches 100%.

Public credit and money issue will enable the domestic banking system to operate in a high growth, low risk, low interest, low inflation economy while retaining its existing profit and growth path except that the debt growth exponential will be lower because growth is tied to the productive economy instead of being inflated by deposit interest.

A consistent growth rate of 5% could be possible in New Zealand but it will not be easy. Developed western economies have large service sectors (US services 76.9%, manufacturing 21.9%, agriculture 1.2%; New Zealand services 69.7% manufacturing 25.8%, agriculture 4.5%⁵⁸). Increased productivity in services is a contradiction in terms. Shifting people from one kind of service to another that offers greater benefit to more people, for example, more nurses and teachers and fewer administrative bean counters equals better education and health rather than "more" education and health. The **quality** of GDP increases but not necessarily the quantity of GDP. In the present system, globalisation has made productivity growth in manufacturing difficult in developed countries because capital, in search of ever-higher profits, has been moved to where labour and environmental standards and costs are lowest.

The management of outward financial flows proposed in Option (A) could dramatically change domestic manufacturing opportunities.

Under the present economic and financial structures, without retraining, people displaced by "cuts" in the service sector have nowhere to go except the unemployment queue. Adjustments being imposed by restrictions on public spending around the world today are brutal, to say the least. They are also misplaced. Without changes of the kind set out in this paper, the United States and other developed economies are not just eating their own economic tails. Most of their people are also being asset stripped through the rapid transfer of wealth to the holders of bank deposits by way of unearned income from deposit interest. Unless exponential debt growth is contained, the future **must** be one of worsening economic crisis.

OPTION (D) INTRODUCING FORMAL LOCAL CURRENCY SYSTEMS

There are many local currency systems in use around the world and quite a few have been proposed to assist development in areas where there is little or no national currency available and few current options to initiate local development programs⁵⁹. Such proposals are not intended to replace national currency or national development but to supplement the growth of useful local economic activity where it would otherwise be unlikely to take place.

⁵⁸ The figures are for 2009 taken from the CIA "World Factbook". Other organizations also provide sectoral breakdowns and the numbers do vary from one to the other.

⁵⁹ A highly developed regional development model with a raft of fully detailed applications prepared by the NGO BakensVerzet can be found at <http://www.flowman.nl>

Almost all local currencies have the single outstanding characteristic that they fall broadly within Option (C) of this paper; that is, they are mostly co-operatively owned interest free, self-cancelling monetary systems. Typically, from a modelling perspective, they conform to a simple dynamic production cycle⁶⁰ where participants operate as entrepreneurs. Any debt incurred during the production phase is sterilised when the product is sold leaving the supplier with an operating credit and the purchaser with a corresponding operating debit. There is then a reciprocal imperative for those with an operating deficit to contribute to economic activity within the system. There is no net systemic debt. Where participants default on any residual debit balance they may have when they leave the local currency group, the debit is effectively offset by the goodwill of those holding the corresponding credit balances, and vice versa.

Local currency systems are designed to work in parallel with the national economy, and to supplement it, not supplant it.

The dominant advantages of local currencies are that they avoid financial leakage whereby national currency incomes are drawn away from local communities, they stimulate community cohesion and local development, they strongly encourage personal independence, responsibility and participation, and they induce useful economic activity that would otherwise not take place, especially among those presently active in unpaid work.

The overwhelming disadvantages of most local currency systems are that they are usually too small to operate as a “market” in any normal sense because they lack the range of skills and number of participants to provide economic efficiency and choice, and they cannot be properly taxed without destroying the integrity of the local accounting systems.

The twin keys to future success of local currencies in developed countries are that they are acceptable for the payment of taxes, thereby greatly encouraging participation, and that the local currency activity can in turn be taxed on a broadly similar basis to national economic activity. In most cases neither of these crucial elements is presently satisfied.

Option (D) provides for formal recognition of the positive role local currencies can play in economic and community development by encouraging the participation of government agencies, particularly local and regional government, whereby local currency is accepted for (at least some of) that part of taxation that territorial authorities expend on local productive output. Territorial authorities could even be encouraged to become the driving force of local currency initiatives. While the local currency initiatives would remain local, a nationwide “EFTPOS” style accounting system would need to be introduced so that local currency trading can be measured and taxed. To accomplish this, each local currency member could be issued a “local currency” debit card that could be accessed through an EFTPOS terminal or similar system⁶¹. The card would carry two separate balances: the local currency balance and a separate national currency balance. When a

⁶⁰ Manning L Paper 1 Section 3 Figure 1

⁶¹ Eftpos facilities are already becoming quite common at local markets in New Zealand, and can be held on a group basis – the proposal is not suggesting that every member necessarily have an Eftpos terminal – but it is technologically possible for the EFTPOS programs to be amended to enable local currency payments to be processed from any existing terminal (for example 1 swipe and entry “from”, another swipe and entry “to”) There are also already several mobile phone platforms in use (Kenya, India, US) for making small payments.

credit transaction is entered (that is, an income), a national currency tax, essentially similar in nature to GST, but set by parliament from time to time at a level it decides is appropriate⁶², would be deducted from the seller's national currency balance and the full local currency credit would then be credited to the seller's local currency balance. If there is insufficient national currency balance on the seller's card, or if the purchaser is operating outside the authorised local currency debit range, the transaction would be declined, just as EFTPOS transactions are declined now where there are insufficient funds to meet the payment⁶³.

The process described above also theoretically allows centralised entry of transactions at a local level by authorised personnel. In that variation, the transactions would be recorded by notes or by cheques.⁶⁴ The transaction accounts would still be the same but it might not be necessary for every participant to have a separate card. Some method would still be needed to enable individual accounts to be downloaded with national currency so the tax payments can be made. There appears to be no particular technical reason why the "local-currency" card couldn't also function as a normal EFTPOS debit card, and likewise no obvious reason why existing debit cards couldn't be modified to incorporate the local currency features. This paper keeps the two systems separate on grounds of public perception: most of those participating in local currency transactions will be keen for others to see they are using local currency.

It is likely that local currencies used as outlined above significantly increase measured gross domestic product and economic growth. As long as the local currency tax rate is set to encourage local activity without measurably inhibiting growth in national currency activity⁶⁵ the local currency option must benefit all parties, including the government of the day. Used in the manner set out above, local currencies could become an extension of Options (A) to (C).

4. EQUITY IN SOCIETY

Figure 1 shows compensation of employees plotted against the operating surplus for New Zealand. The figures need to be treated with caution⁶⁶. With the possible exception of the late 1980's when the gross operating surplus declined relative to compensation of employees, and the opening years of the 21st century when the operating surplus seems briefly to have grown faster than employee compensation there is little to suggest long-term substantive changes in the ratio of employee incomes to the gross operating surplus. The current SNA accounting system shows they appear to have been relatively stable, so

⁶² The national currency debit would also include any formal money EFTPOS processing costs.

⁶³ Should, in the future, any Universal Basic Income (sometimes called Guaranteed Minimum Income or GMI) be introduced, the proposal provides a ready-made payment route since everyone would have such a local currency debit card, and the formal money UBI could be paid automatically onto the card. A full plan for the introduction of a GMI into New Zealand can be found in paper 2 of this series.

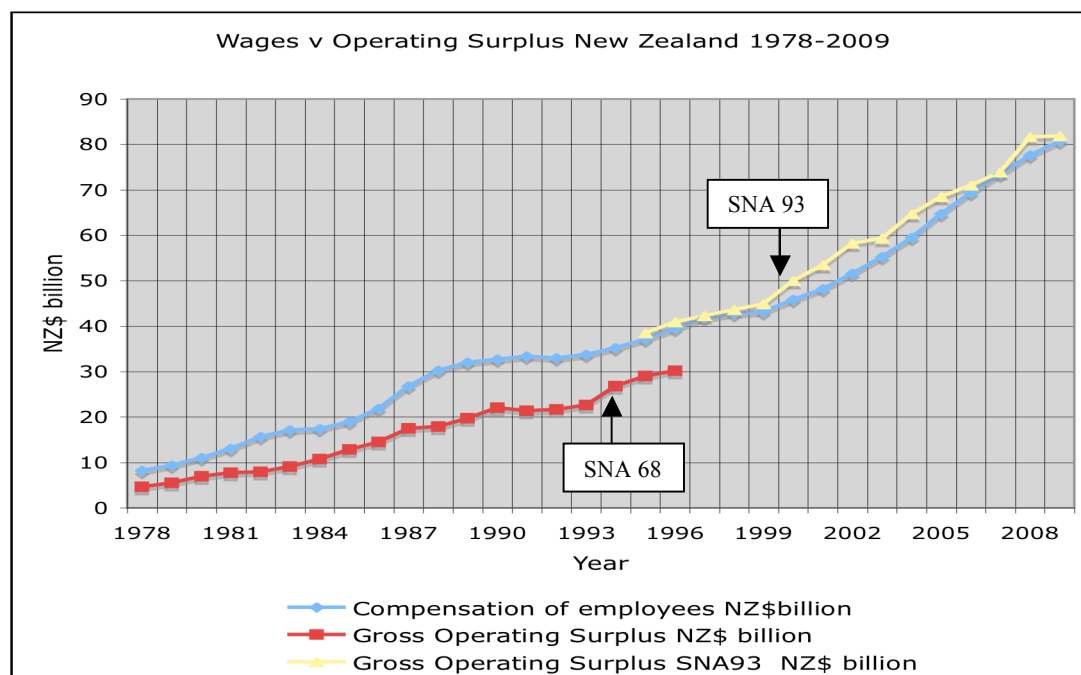
⁶⁴ This paper does not consider Option (D) from the point of view of system security, that is, for example the risk of a lengthy electricity failure or viral or other corruption of network electronic processors. Such systemic risks are very low and common to most modern economic activity.

⁶⁵ If the tax rate is too low it will draw activity away from the national economy into the local economy reducing gross tax revenue, whereas the intent of Option (D) is to enhance both economic activity and total gross tax revenue.

⁶⁶ The figures have been amended several times. The discontinuity in the series is due to the change in the SNA accounting system from SNA68 to SNA93.

the income imbalances apparent around the world do not arise from a change in the relationship between wage and salary earners and entrepreneurs⁶⁷.

FIGURE 1 COMPENSATION OF EMPLOYEES v GROSS OPERATING SURPLUS NEW ZEALAND 1978-2009*



* Source: New Zealand National Accounts

However, the relationship between employee incomes and gross operating surplus can mask dramatic changes in equity among income groups. One common way of measuring income equality is by using the Gini coefficient⁶⁸. A high score means relative income inequality and a low score income equality. Over recent decades, New Zealand has gone from having one of the most equal income distributions in the developed world to having one of the least equal. Its Gini coefficient rose steeply from about 27.5 in 1986 when the top income tax rate had just been halved and a 10% Goods and Services Tax GST was introduced, to about 38 in 2002 before dipping slightly when the “Working for Families” tax credit package was introduced. Since 2007, the Gini coefficient for New Zealand has been rising steeply again. Once the Budget 2010 tax reductions have been implemented in New Zealand the index will be close to 40⁶⁹, in the same order as that of the United States that has the worst income distribution in the developed the world except for Singapore.

⁶⁷ It remains possible the relationship between the numbers of entrepreneurs and the numbers of wage and salary earners has altered, for example if firms became bigger on average. Such changes would not be disclosed in Figure 1.

⁶⁸ The Gini coefficient is developed from the Lorenz curve, which is a plot of incomes against population starting from the poorest groups in the population, There is a good introduction at http://en.wikipedia.org/wiki/Gini_coefficient. The Gini coefficient does NOT typically include investment income.

⁶⁹ The Gini curve used for these figures was taken from the NZ Green Party website 19/6/10 because it is reasonably current. <http://blog-greens.org.nz/2010/04/06/inequality-in-aotearoa-a-brief-history-of-inequality/> Various organizations like the UN and the CIA calculate Gini coefficients which can vary depending on the way the basic data is compiled.

The bottom 10% of income earners will receive about 2% of incomes and the top 10% nearly 30%. The lowest Gini coefficients in the OECD, about 25, are in Scandinavia.

Poor income distribution suppresses demand for domestically produced goods and services. People with low incomes have relatively little to spend on domestic consumption, especially on services, which make up the bulk of monetised economic activity. Income concentration encourages relatively high demand for imported “luxury” products adding to New Zealand’s export dependency, which is part of the reason for its current account imbalance⁷⁰.

There are just two ways to avoid large earned income imbalances. The first is by increasing lower end wages and salaries, especially minimum incomes. The second way is by reconsidering taxation policy, not for political reasons but because the existing income distribution structure has not been working well. Both the debt model referred to Section 3 of this paper and the analysis in Paper 1⁷¹ show that inflation and growth must be reflected in incomes for the production cycle to clear. Heavily skewed income distributions make the process of clearing the market from each production cycle more difficult. Some people have “too much” (and growing) income in relation to domestic consumption and many others “too little” (and falling) income. “Ordinary” employment gets squeezed.

Every economy can be thought of as having its own physical shape. That shape reflects the degree of “reasonable self-sufficiency” the economy possesses. Reasonable self-sufficiency describes how well domestic production matches the consumption patterns of the population as a whole taking into account its income structure. The less of its own domestic product an economy can afford to consume and the more reliant that economy becomes on importing what it needs but does not produce the more skewed the economy becomes. The more skewed the economy the more dependent it is likely to be on foreign trade, globalisation, and in some cases, on foreign debt.

Income distortions have become structural, especially in industrialised economies. According to the debt model, increased incomes are inflationary unless they are accompanied by corresponding increases in productive output. Since the employed workforce is already producing goods and services, the *SHAPE* of the economy, the basket of goods and services produced in relation to incomes and consumption patterns, will have to change if it is to improve the lot of the people as a whole so that everyone gets a “fair” share⁷². Increasing incomes without increasing production would just increase prices.

Changing the shape of the economy means eliminating excessive debt, especially foreign debt, as discussed in Section 3. It also suggests changing the tax structure to optimise the options as also set out in Section 3.

⁷⁰ This does not suggest New Zealand should not export or import. It suggests there is a fundamental market imbalance in New Zealand. A substantial proportion of the population is unable to consume what it produces and *would* consume, given the choice, but cannot do so because the income structure is so skewed.

⁷¹ Manning L Paper 1 “The Interest Bearing Debt System and its Economic Impacts” Section 3

⁷² What that “fair” share is should be a defining political debate in a democracy.

Tax structures in most parts of the world are confusing, antiquated and expensive to run. They are layered like an onion. New taxes have been added over the centuries as the means to collect them have become available. They are full of loopholes and exceptions granted to vested interests of one kind or the other. Governments of all hues have tended to weight tax law with an eye towards their own perceived constituencies and re-election. This implies adoption of short-term goals instead of policies for the long-term benefit of the nation as a whole. Governments claim to know the importance of goals such as economic efficiency, research and development, the “knowledge” economy, investment and the reduction of welfare dependency but they are unable to “walk the talk”. Systemic constraints have made effective political action to adapt the existing financial architecture to the needs of modern economies all but impossible. The basic issues to be addressed are covered in the debt model referred to in Section 3 of this paper and in Paper 1 of this series. The current financial system has become a straightjacket on the world’s economies as the recent debt “crises” have demonstrated.

In New Zealand, there has been a shift away from taxing incomes towards taxing consumption. This is illustrated in the recent New Zealand budget for the year ending June 30, 2011 that further reduces income tax and increases GST⁷³. The main difficulty with GST is that it is regressive. It taxes final consumption of goods and services and leaves out investment income. Complaints that low income earners spend more of their income on basic consumption goods and services than high-income earners are valid. The debt model (page 6 of this paper) shows that the failure to capture the exponentially growing volume of investment income in the tax net, as demonstrated in the debt model worsens the skew in income distribution described above. Despite best intentions, the *SHAPE* of the New Zealand or any other economy will not change by increasing the existing income distribution skew and forcing the economy further out of shape. The shape of the economy will change only by reducing or removing the skew. That means the tax base needs to be universal so that whatever tax is applied applies equally to everyone, including participants in the investment sector.

A flat tax to achieve tax universality is available to governments that choose to use it. It is called a Financial Transactions Tax (FTT)⁷⁴. FTT is very cheap to administer. It could easily replace all other forms of taxation except social excise and environmental taxes such as those tobacco, alcohol, fuel, pollutants, and perhaps source deductions on sugars and saturated fats that contribute heavily to obesity, diabetes and heart disease. Most of the nations’ Revenue Departments could be dismantled. One version of FTT is to deduct the tax automatically every time money is transferred out of any deposit account unless the transfer is to another account held by the same account holder. Savings in downstream compliance costs (government, accountants, lawyers, business administration), would be substantial⁷⁵. The *quality* of economic output could be improved. The *quantity* of output would play a smaller role in the economy. FTT would considerably increase economic efficiency, releasing a pool of educated and experienced people for more productive and useful output⁷⁶.

⁷³ GST refers to Goods and Services Tax. In Europe it is called VAT, (Value Added Tax).

⁷⁴ This is a general tax, not to be confused with the so-called Tobin, or “Robin Hood” tax

⁷⁵ Estimation of the savings is outside the scope of this paper, but could easily exceed 5% of GDP

⁷⁶ No reflection on the people concerned is intended – in the present context they are productive and useful—but in the broadest economic sense their skills could well be better utilised.

As described on page 18 of this paper, the *quality* of output refers to the real benefit the economic activity contributes to national and environmental well-being. Reducing compliance costs and the demand for legal, taxation and policy advice, for example, would, over time, free more people to do more work that is more useful to society. The more complicated and controlled society becomes the less beneficial its economic output will be.

The level of the FTT is easy to calculate. In New Zealand, for example, the 2010 budget proposes total revenue of NZ\$70 billion out of a GDP of, say, NZ\$190 billion. Suppose NZ\$ 65 billion is to be raised from FTT. Based on total transactions in the New Zealand economy of about 1.8 times the GDP or, say, NZ\$340 billion⁷⁷. The required FTT rate is then about 19% (65/340), not much more than the new 15% GST rate in New Zealand⁷⁸. All income is kept until it leaves the bank account into which it has been placed.

The proposed overall FTT tax level clearly illustrates the hefty tax skew masked by the existing taxation system that substantially exempts the investment sector from paying its “fair share” of tax.

Most ordinary people spend most of their income on basic needs. While those buying a house will pay FTT⁷⁹ on both the house and on loan repayments, the interest rate under the Options in Section 3 may be less than 3%. 19% tax on the interest and repayments is still probably less than 1% of their outstanding loan. Their total household financing cost is still less than 3% interest plus another 1% FTT tax on their interest and repayments, or 4%. That 4% is much less than the interest most people pay now. A universal “flat tax” of about 20% considered so desirable by some political parties in New Zealand and elsewhere is feasible as long as it is applied across the board and not selectively as some of those parties have proposed.

Unlike GST, which is a “pass-the-parcel” tax on value added, FTT is a layered tax because it is charged every time money is transferred from a bank account. The more complex a product is, and the more packaging, transport and storage it needs the more expensive it will be because there are more payments made before the final product is consumed. FTT therefore favours local production and local consumption of local products. Local development will be stimulated. Typically, exports are sold exclusive of such domestic taxes⁸⁰. FTT would be added to imported goods and services when they are sold just as GST is at present.

Social transfer payments from tax revenue to beneficiaries and superannuitants will still be needed. They may need to be extended a little because the reduction or removal of bank deposit interest as proposed in Section 3 will affect people, especially retirees, who

⁷⁷ The additional transactions include such things as intermediate transactions in production, property and equity transactions, financial transactions, interest, and loan repayments.

⁷⁸ The 19% figure could be reduced to 17.5% with government injection of NZ\$5b/year (Option B p13)

⁷⁹ The tax would presumably be added to the loan just like GST is added to prices now.

⁸⁰ Consumption taxes are usually levied under the tax system of the country where they are consumed, not in the country where they are produced. In any case they are levied on sales rather than purchases. The exporter is selling and not buying. It might be practical to strip out some of the FTT costs layered into the export sale price of the exported goods. That is not recommended because it would add complexity to an otherwise extremely simple tax system and could make it subject to abuse. Two of the beauties of FTT are its universality and its simplicity.

currently depend on interest income to supplement their pensions. Options to deal with these issues are outside the scope of this paper. One option is to provide insurance or guarantees for investments in new businesses and deposits with qualifying non-bank deposit taking institutions. If the existing tax system is, for the time being, retained, retiree depositors could be compensated for loss of interest income by exempting some of their pension from income tax.

Case management for beneficiaries other than pensioners has always been fraught with difficulty, and that will, unfortunately, not change unless a universal basic income (UBI)⁸¹ (Manning, 2010) is introduced to replace the plethora of individual entitlements that characterise “modern” social transfer systems. In the meantime, earned incomes will still have to be linked to social transfers with the on-going intrusion of eligibility qualifications.

5. IMPACTS ON THE PUBLIC SECTOR

This paper does not argue for or against more or less public sector involvement in the economy. The proposals are “public sector neutral”. The debt model shows that the debate about the public sector should not be about its size, but about the *quality* of its economic output compared with that of the private sector for the same amount of economic input. When the public sector is more efficient it should be used. It is easy to be ideological about the role of government with one side wanting to reduce government and open more of the economy to private profit and the other wanting to improve “people power” or social equity.

Whichever side of the ideological fence is chosen the impact on government from the proposals contained in this paper is profound. They should enable government to function more effectively. There will still be a tax system and there will still be income redistribution, public welfare and (in New Zealand) state-paid pensions. Despite that, the government of the day will have more freedom to act because it will gain control over the overall management of the financial system and be able to use the powerful new tools at its disposal.

The only effect of the proposed changes to the banking sector will be that the exponential growth of debt will fall (in New Zealand) from about 10% at present to an amount up to 4%⁸². Existing unsustainable structural debt growth will be converted to much lower sustainable debt growth. That debt growth and the issue of debt-free E-notes will be based upon the real expansion of the productive economy. That is the core intent of this and previous papers. The proposals enable governments to meet their fundamental and imperative responsibility to provide their peoples with a stable financial system.

⁸¹ A UBI would nominally increase the FTT closer to 26% unless it is accompanied by a wealth tax. Assuming the UBI is made very close to “social-transfer neutral”, the 7.5% difference in FTT would, in aggregate, be “refunded” as UBI to those who have paid most of it. The net income redistribution would then be roughly similar to what it is now, but without any of the present barriers, stigmas, or government intrusion in peoples’ lives and without the massive compliance costs involved in the application of social legislation. Manning, 2010 provides a fully worked plan for a Guaranteed Minimum Income for New Zealand, incorporating a wealth tax of 1% and a small E-note injection.

⁸² 10% is from paper 1 Figure 9. The 4% is from growth (up to 5%/Vcd 1.3)) and inflation (say, less than 0.5%) less any monetisation effect from E-notes in Options (B) and (C).

Looking at the options (A) to (D) in relation to the Public Sector:

Option (A) merely reinserts a supplementary reserve requirement on the banking system that enables the central bank to manage the quantity of new debt by a means other than the domestic OCR (official cash rate). The reserve requirement allows the price of domestic debt to remain cheap so deposit interest can be reduced or removed in much the same way debt expansion used to be managed before the oil shocks of the 1970's. If Option (A) is to be successful, the foreign exchange interface has to be carefully managed as set out earlier in this paper. Capital flows will be managed to bring the current account into balance and, over time, enable net foreign debt to be repaid. The reduced demand for foreign debt should permanently reduce the Trade Weighted Index (TWI) to a stable lower level consistent with a balanced current account and much lower interest rate structure. Permanently lower exchange rates will increase profits in the export sector. The government may have to find ways to sterilise some of those profits to avoid inflation in the domestic economy. One way to do this would be to offer attractive national development bonds to stimulate increases in productivity through investment in new industry and research, and similar schemes designed to direct the additional income into national productive use. The foreign transactions surcharge (FTS) will stop the "carry" trade and prevent it from being reversed when domestic interest rates fall to very low levels.

Option (B) provides the public sector with more leverage over its own activity to the extent there are unused or under-utilised resources available to increase productive economic output. In addition to making use of available resources, public credit can be extended to provide funding for economic growth and to refinance existing government bonds as they mature. Transitional provisions will need to be introduced to allow for the supplementary reserve ratios to steadily rise as traditional new bank lending through debt expansion is reduced and lending of deposits through bank intermediation increases.

From the government and public sector point of view, Option (C) is conceptually different from Option (B) only in that it leads more quickly toward 100% reserves in the private banking system. That 100% reserves status is reached not by calling in loans but by increasing the system reserves as the public issue of money and credit increases gradually as indicated in this paper. It does not substantially change the total supply of money and debt from Options (A) and (B). Nor does it change the banking system lending criteria or the banks' spread or profit margin. The main impact of Option (C) on the public sector is that it introduces government authority over the issue of money and credit expressed in the quote at the beginning of this paper. Several legislative proposals for implementation are already available or under development⁸³.

Seen from the public sector point of view Option (D) increases productive economic output at very little public cost by encouraging economic participation among those who are unable to do so within the formal economy⁸⁴. Some monetisation of presently unpaid work would help improve the self-esteem and status of those in society who presently feel alienated. Depending upon how the government of the day decides to manage the

⁸³ For example "The American Monetary and Financial Security Act" promoted by Congressmen Denis Kucinich and the American Monetary Institute in the US; and "The Bank of England Act 2010" under preparation: <http://www.bankofenglandact.com>.

⁸⁴ For example, when availability for paid work in the formal economy is irregular or sporadic, as with parents with young children, beneficiaries, or those subject to periodic illness or disability.

relationship between social transfers and local currency activity, there could be a significant reduction in government transfer payments and other intangible benefits such as a fall in crime rates and domestic violence.

6. INDICATIVE COMPARATIVE ECONOMIC PERFORMANCE

Any detailed comparison of economic performance is outside the scope of this paper. Some idea of what will happen as a result of the application of the proposals in this paper can be seen in Tables 1 and 2 and in Figures 2 to 7. Tables 1 and 2 solve the debt model equation (5) below. Table 1 is based on Option (B) while Table 2 is based on the current system. The terms are defined on page 8 of this paper.

$$dMd/dt = d/dt [Mcd] + Ms + Mv = d/dt [PQ(d)/Vcd + Ms + Mv] \quad (5)$$

where:

dMd/dt	= the change in total debt Md over time dt
$dPQ(d)/dt$	= the change in nominal GDP over time dt
dMs/dt	= the change in accumulated deposit interest over time dt
$dMcd/dt$	= the change in circulating debt physically used for domestic production over time dt $d/dt (Ddc-R)$ where Ddc and R are as described above
dMv/dt	= the change in the provision for lending backing "savings" that is not part of the productive economy and not part of Ms , over time dt .
Vcd	= speed of circulation of $Mp = Mcd$ (for most practical purposes Vcd can be assumed constant over a short time dt)

Assumptions in Table 1:

Deposit interest after tax 2010, 2.63% other years as shown in Line 3

Inflation 2011 4%, other years as shown in Line 5

Growth 2011, 1%, other years as shown in Line 6

E-note issue \$5 b /year:

Reserve Bank debt issue is assumed to be 50% of the change in total debt Line 11. The remaining 50% is assumed to be issued by the banks.

$Ve = Vcd$ 1.3 approximately.

Current account is accumulated current account less accumulated transfers, assuming increases shown in Line 16.

"Savings" at Line 14 are assumed to increase steadily. Much of the increase comes from Kiwisaver, but some of the increase could come from renewed contributions to the Government Superannuation Fund (the Cullen Fund).

A similar indicative exercise is provided in Table 2 assuming the existing system remains in place, but Ms growth (Lines 3 & 4), inflation (Line 5) and current account deficit (Line 15) are higher while economic growth (Line 6) is lower and there are no E-notes to help reduce debt growth. The reduction in interest cost is indirectly taken into account in the government debt in Figure 7⁸⁵. Figure 8 shows the structural change in the speed of circulation Vcd of the circulating debt Mcd in the debt model on which Figures 2 to 7 are based. As the unearned income Ms has increased faster than the nominal GDP, Vcd has decreased. Extending the model to 2017 using the Table 1 assumptions would slow the decline of Vcd for Option B relative to Vcd in the Current System but no attempt has been made to quantify the difference for this comparative exercise.

⁸⁵ The current account Dca is not included in equation (5) but Option B allows it to be stabilised and then repaid. Tracking the current account is a crucial outcome of this comparative exercise.

TABLE 1 INDICATIVE NEW ZEALAND OPTION (B) 2011-2017⁸⁶

Line	Year	Mar 2011	Mar 2012	Mar 2013	Mar 2014	Mar 2015	Mar 2016	Mar 2017
2	<i>Model data</i>							
3	Ms growth % of total debt at end of year	2.81	2.31	1.93	1.35	0.77	0.39	0.19
4	Ms NZ\$billion	139.7	147.9	154.9	160.5	164.3	166.5	167.6
5	Inflation % of previous year's total GDP	4	1.5	1.0	0.5	0.5	0.5	0.5
6	Growth % of previous year's total GDP	1	3.0	4.0	5.0	5.0	5.0	5.0
7	GDP total NZ\$billion	195.4	204.2	214.4	226.2	238.6	251.8	265.6
8	E-Note issue NZ\$billion(Veo=1.3)	0	5.0	5.0	5.0	5.0	5.0	5.0
9	GDP (Eo) NZ\$billion	0	3.3	9.8	16.3	22.8	29.3	35.8
10	Cash contribution Mo*Vo NZ\$b	5.4	5.1	4.8	4.4	4.1	3.7	3.7
11	GDP(d) NZ\$billion	190.0	195.8	199.8	205.5	211.7	218.8	226.1
12	Total Debt NZ\$billion (excluding Dca)	318.8	331.9	343.5	361.5	375.6	389.2	402.5
13	Assumed increase in savings NZ\$b	2.0	2.5	4.5	5.0	5.5	6	6.5
14	Total "savings" Mv	30.9	33.4	37.9	42.9	48.4	54.4	60.9
15	Current Account NZ\$b less line 23	172.4	175.4	175.4	172.9	168.9	164.4	159.4
16	Ms growth NZ\$ b	8.3	8.2	7.4	5.6	3.8	2.2	1.1
17	Inflation % x Total GDP NZ\$billion	7.4	2.6	2.0	1.1	1.1	1.2	1.2
18	Cumulative Growth NZ\$billion	1.9	7.8	16.0	26.7	38.0	49.9	62.5
19	Actual annual current account deficit	7.5	5.0	3.0	1.0	0	0	0
20	Speed of circulation of debt/E-Notes	1.3	1.3	1.3	1.3	1.3	1.3	1.3
21	<i>Government balances</i>							
22	Nominal government input(debt+E-note)	0	11.3	10.8	14.0	11.0	11.8	10.7
23	Extra foreign debt retired from line 22	0	2.0	3.0	3.5	4.0	4.5	5.0
24	Tax cuts \$ billion/govt debt retirement	0	9.3	7.8	11.5	7.0	7.3	5.7
25	Government balance	0	0	0	0	0	0	0
26	Current account debt replacement (sum)	- 7.5	-10.5	-10.5	-8	-4	0.5	5.5
27	Total tax/government debt retired NZ\$b	-13	-3.7	4.1	15.6	22.6	29.9	35.6

While the data in Figures 2 to 7 is indicative only, Option (B) dramatically changes the **SHAPE** of the economy from one that is debt and inflation ridden with poor growth to one where both foreign and domestic debt, as well as government debt are demonstrably under control and the economy is transformed towards high growth and low inflation. No graph is provided for changes in the exchange rate (trade weighted index, TWI). In addition to the positive effects from Options (A) to (D), what happens with the TWI in New Zealand over the next year or two depends significantly on what happens in the United States domestic economy, particularly in its market for US Treasury paper. If the US remains stable, the New Zealand trade-weighted index would probably fall sharply in the first instance with the introduction of the Foreign Transactions Surcharge (FTS) before recovering gradually to perhaps 40⁸⁷. Rose (2009) offers some evidence of a relationship between interest rates and exchange rates but nothing that would adequately reflect the dynamic mix of Option (B).

⁸⁶ The methodology for calculating Tables 1 and 2 is available from the author on request

⁸⁷ On 23/6/2010 the TWI stood at about 68 – having fluctuated widely in recent months.

TABLE 2 INDICATIVE NEW ZEALAND CURRENT SYSTEM 2011 -2017

Line	Year	Mar 2011	Mar 2012	Mar 2013	Mar 2014	Mar 2015	Mar 2016	Mar 2017
2	<i>Model data</i>							
3	Ms growth % of total debt at end of year	2.81	3.3	3.8	4.3	4.8	4.0	3.0
4	Ms NZ\$billion	147.9	157.6	169.8	184.7	202.8	221.8	238.0
5	Inflation % of previous year's total GDP	4	2.5	2.5	2.8	3.0	2.0	1.8
6	Growth % of previous year's total GDP	1	2.0	2.5	3.0	2.0	1.5	1.5
7	GDP total NZ\$billion	195.4	204.2	214.4	226.8	238.2	246.5	254.7
8	E-Note issue NZ\$billion(Veo=1.3)	0	0	0	0	0	0	0
9	GDP (Eo) NZ\$billion	0	0	0	0	0	0	0
10	Cash contribution Mo*Vo NZ\$b	5.4	5.1	4.8	4.4	4.1	3.7	3.7
11	GDP(d) NZ\$billion	190.0	199.1	209.6	222.4	234.1	242.8	251.0
12	Total Debt NZ\$billion (excluding Dca)	318.8	344.2	368.9	398.7	431.3	462.9	492.0
13	Assumed increase in savings NZ\$b	2.0	2.5	4.5	5.0	5.5	6	6.5
14	Total "savings" Mv	30.9	33.4	37.9	42.9	48.4	54.4	60.9
15	Current Account NZ\$b less line 23	172.4	181.2	191.4	203.8	214.9	223.2	231.3
16	Ms growth NZ\$ b	8.3	9.7	12.2	14.9	18.1	19.0	16.2
17	Inflation % x Total GDP NZ\$billion	7.4	4.9	5.1	6.0	6.8	4.8	4.4
18	Cumulative Growth NZ\$billion	1.9	5.8	10.9	17.3	21.9	25.5	29.2
19	Actual annual current account deficit	7.5	8.8	10.2	12.4	11.1	8.3	8.1
20	Speed of circulation of debt/E-Notes	1.3	1.3	1.3	1.3	1.3	1.3	1.3
21	<i>Government balances</i>							
22	Nominal government input(debt+E-note)	0	0	0	0	0	0	0
23	Extra foreign debt retired from line 22	0	0	0	0	0	0	0
24	Tax cuts \$ billion/govt debt retirement	0	0	0	0	0	0	0
25	Government balance	0	0	0	0	0	0	0
26	Current account debt replacement (sum)	0	0	0	0	0	0	0
27	Total tax/government debt retired NZ\$b	-13	-20	-24	-26	-26	-29	-34

FIGURE 2 OPTION(B) NOMINAL GDP

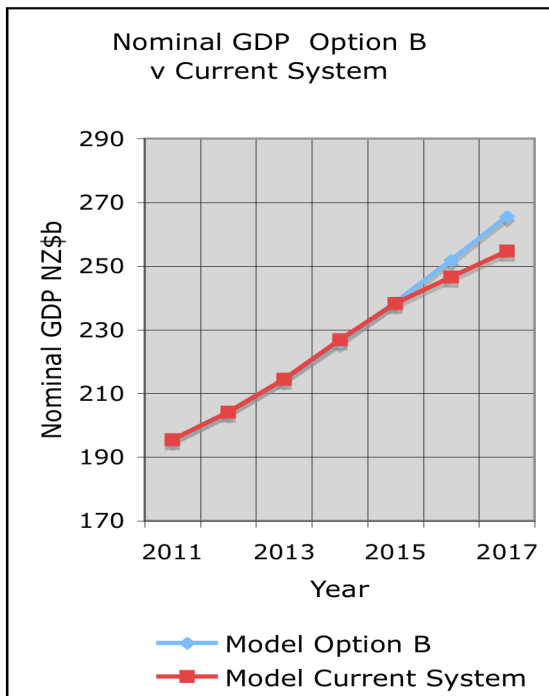


FIGURE 3 OPTION(B) DOMESTIC DEBT

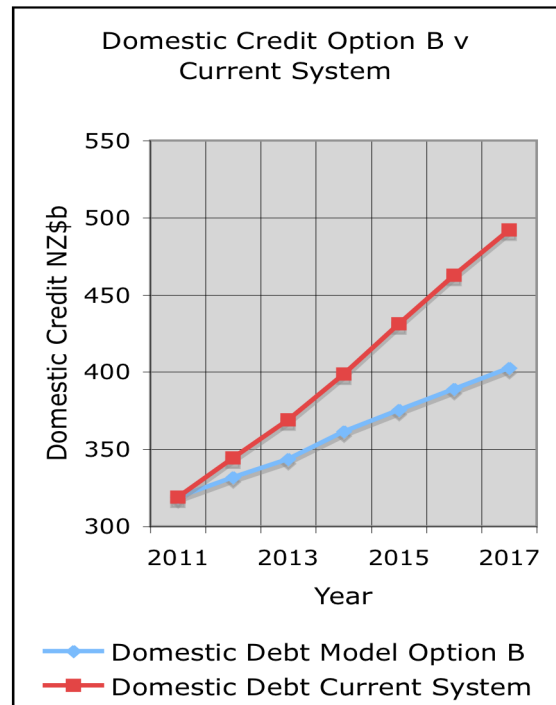


FIGURE 4 OPTION(B) FOREIGN DEBT FIGURE 5 OPTION(B) GROWTH

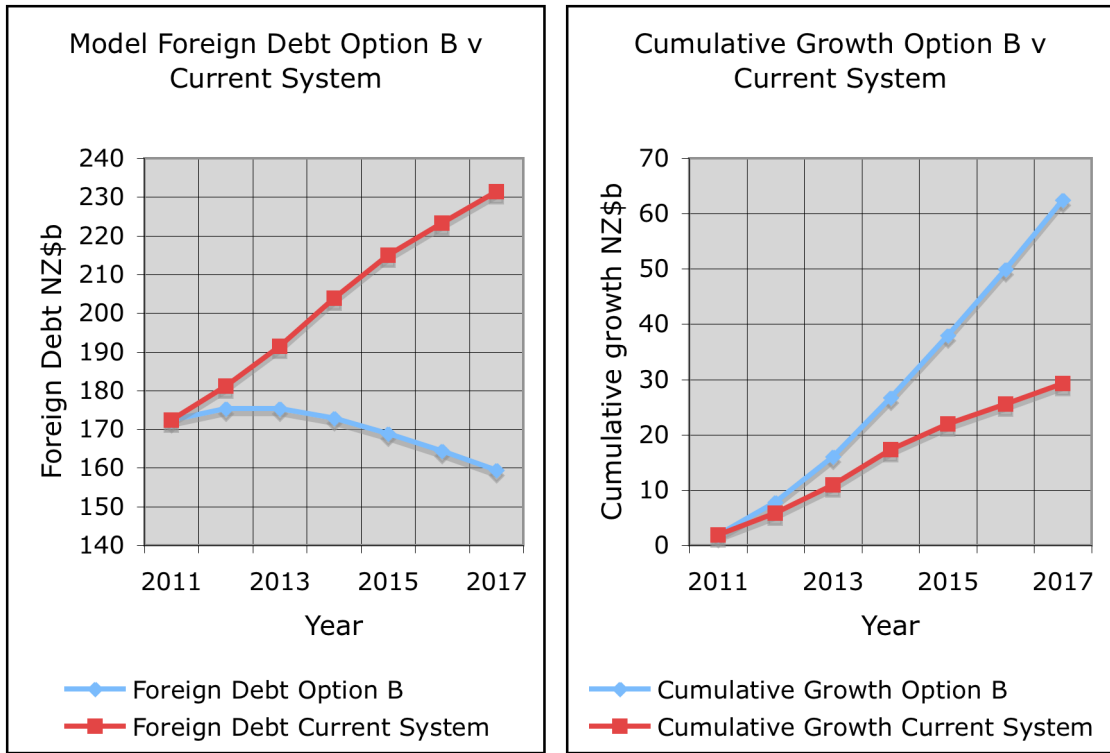


FIGURE 6 OPTION(B) INFLATION FIGURE 7 OPTION(B) GOVERNMENT DEBT

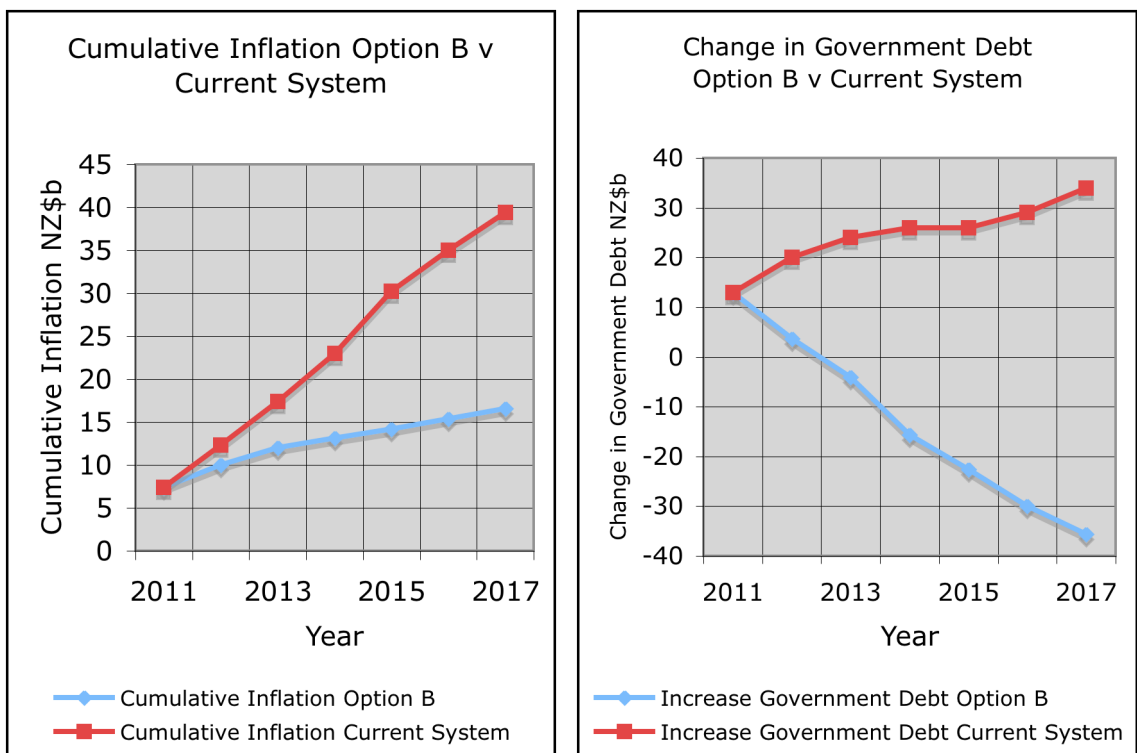
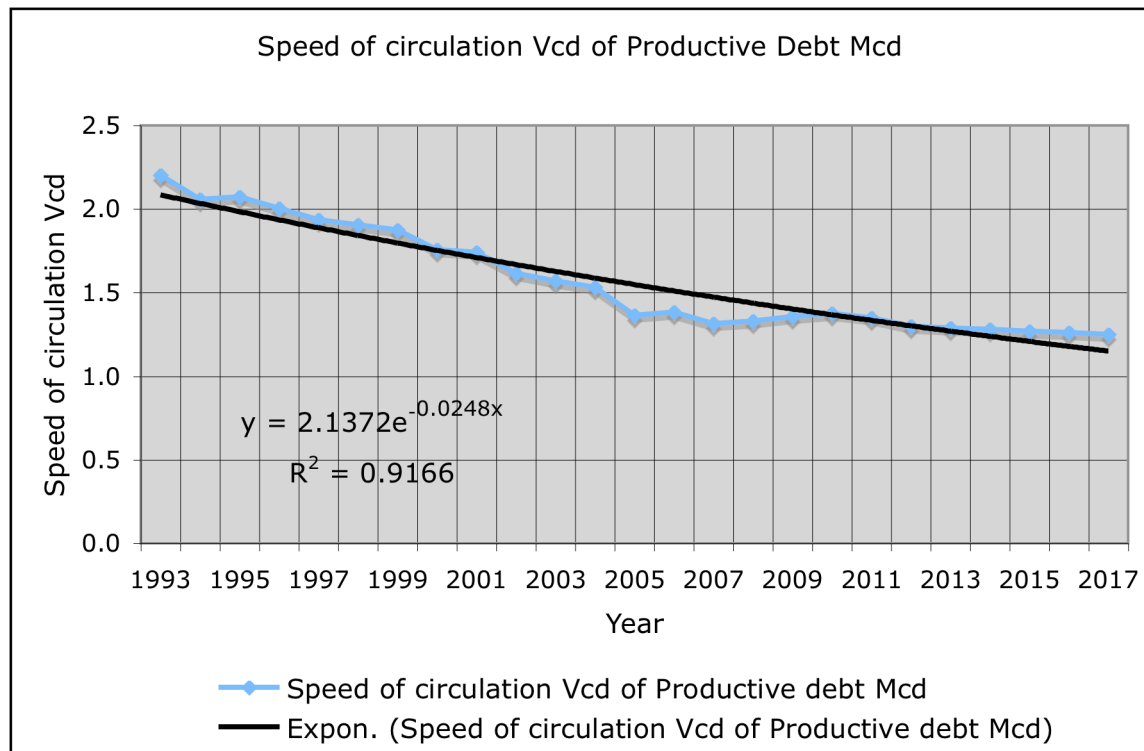


FIGURE 8 SPEED OF CIRCULATION V_{cd} OF CIRCULATING DEBT M_{cd} IN THE DEBT MODEL NEW ZEALAND 1993 – 2017⁸⁸



After just five years, the New Zealand economy would be among the strongest and most stable in the world. The proposed Foreign Transactions Surcharge (FTS) does not appear in Table 1 because it is offset by domestic tax reductions and so does not dominate the fall in foreign debt in Figure 4. The decline in foreign debt is partly due to the progressive debt monetisation (Table 1 line 23) using some of the government injection at Table 1, line 22. Any additional reduction in the foreign debt resulting from the FTS is an added bonus.

At Table 1 Line 24 the government of the day has a 3-way choice. It can reduce government debt, reduce taxation or spend more if there are sufficient resources available to do so. In Table 1 the money is arbitrarily used to reduce government debt. De-facto tax cuts are already built into the calculations in Table 1 because the domestic interest rate structure will be much lower, with average interest rates permanently below 3% at the end of the period compared with an average of 7% or more under the existing system.

Hudson (2010) makes the point that “There is no point in devaluing, unless “to excess”- that is, by enough to actually change trade and production patterns⁸⁹.” That is exactly what Options (A) to (D) set out to do as they change the SHAPE of the economy.

⁸⁸ A parabolic trendline actually gives a better fit $R^2=0.975$, but that is because the slope of the V_{cd} curve is structurally changed by changing interest rates.

⁸⁹ Prof. Michael Hudson, “The Coming European Debt Wars” 9/4/10
<http://www.informationclearinghouse.info/article25179.htm>

7. CONCLUSIONS

This paper is the fourth in a series discussing the causes of the rapid exponential growth of interest-bearing debt in the world's developed economies, and what pathways might be available to reduce debt growth to sustainable levels.

The paper builds on the theory and debt model presented in paper 1 of this series referred to in the introduction. That theory is based on a revised form of the Fisher Equation of Exchange that takes the presence and cost of interest paid as unearned income on bank deposits into account.

Section 3 of the paper offers four options, labelled Option (A) through Option (D). The options are in ascending order of the degree of transformation of the existing financial architecture they provide.

Option (A) leaves the existing banking system as it is, but maintains a very low Official Cash Rate (OCR) and introduces a supplementary reserve ratio over and above the normal risk weighted capital adequacy ratios to manage debt expansion in the domestic economy. Since New Zealand is, unlike Japan, carrying a large foreign debt, a managed exchange rate mechanism is proposed. To achieve that, an automatically collected, variable, tax-neutral foreign transactions surcharge (FTS) is introduced at the foreign exchange interface. The FTS is designed to draw the current account into balance and supply surplus funds to gradually repay foreign debt. The FTS would be charged on all outward currency transfers.

Option (B) is similar to option (A) but allows the Central Bank to provide funding for some government expenditure that would otherwise be supplied at interest by the private banking system. The funding foreseen is a mixture of debt and electronic cash (E-notes). The Central Bank funding is sterilised using the supplementary reserve ratio from Option (A) so funding injections by the Central Bank have no inflationary impact. The Central Bank funding, once spent, increases the deposits in the banking system as is the case with existing private bank funding, broadly maintaining the banks' lending capacity and margins. The debt growth exponential is reduced, but that reduction is partly offset from the banks' point of view, by a very low rate of inflation.

Option (C) takes Option (B) a step further by issuing all debt and money through the Central Bank. Option (C) is the one recommended by United States President Lincoln in the quote at the beginning of the paper. The end-point of the process is that the banking system reserves gradually increase to 100%, and the private banking system becomes a savings and loan institution without the right to issue debt. The banks' lending margins, policies and lending criteria remain essentially unchanged.

Option (D) provides for an integrated, measured and taxed local currency system that can be used in conjunction with any of Options (A) through (C) to further promote measured local economic participation that would otherwise be unlikely to take place, and also to further widen the equitable tax base,

Section 4 of the paper discusses equity in society. It shows how the existing financial and taxation systems have skewed the income structure of industrialised economies. It argues the only way to correct the skew is to change the *SHAPE* of the economy. A single

universal financial transactions tax (FTT) is proposed as an option to do that. The FTT would be deducted on all transfers out of bank accounts, and in New Zealand, tax neutrality would be obtained with a FTT tax level of about 19%, only marginally higher than the Goods and Services Tax level of 15%, and lower than the corresponding 20% VAT tax in the UK. FTT is a layered tax, encouraging local production and consumption of goods and services. Simple goods with a short production chain would become relatively cheaper than more complex products.

Section 5 reviews the impacts of the various proposals on the public sector. While Options (B) and (C) potentially offer more leverage for greater economic participation of the public sector, the proposals can also be presented in “a public sector neutral” form. The degree of influence of the proposals on the public sector is subject to political evaluation and is beyond the scope of the paper. Despite that, even the modest application offered in Section 6 produces dramatic downstream benefits for governments’ accounts, especially in relation to public debt levels and the sharply reduced cost of funding that debt.

Section 6 uses the economic debt model to produce a comparison between Option (B) and the present economic system. Just one of a theoretically infinite number of combinations is tested. The underlying test assumptions are modest in the context of the wider possibilities, but Figures 2 to 7 show an impressive economic transformation over a seven-year period. Within the context of a similar nominal GDP there is a vast increase in largely inflation-free growth while at the same time the foreign and domestic debt levels are brought under tight control, allowing public debt to be eliminated over the medium term.

The proposals in this paper provide a clear pathway to sustainable debt, very low inflation and high real productive economic growth. The economy can be safely reshaped to offer more equity in society and to function much more efficiently than it does under the current financial system.

BIBLIOGRAPHY

Allsopp C & Vines D, (2008) “Fiscal policy, intercountry adjustment and the real exchange rate in Europe”, European Commission, Economic and Financial Affairs, Economic Papers 344, October 2008

Baker D (2008), “The Benefits of a Financial Transactions Tax” Center for Economic and Policy Research, December 2008,
<http://www.cepr.net/documents/publications/financial-transactions-tax-2008-12.pdf>

Bertram G (2009), “The Banks, the Current Account, the Financial Crisis and the Outlook”, Policy Quarterly, Vol 5 Issue 1, February 2009.

Brand C (2010), “Commission Calls for Tax on Financial Transactions”, 6/4/10
<http://www.europeanvoice.com/article/2010/04/commission-calls-for-tax-on-financial-transactions/67611.aspx>

Brash D (1996), “New Zealand and international financial markets: have we lost control of our own destiny?” Address by Donald T Brash, Governor of the Reserve Bank of New Zealand to the 31st Foreign Policy School, University of Otago, Dunedin, 29th June

1996. <http://www.rbnz.govt.nz/speeches/0032358.html>

Hudson, M (2010) “The Coming European Debt Wars” 9/4/10
<http://www.informationclearinghouse.info/article25179.htm>

Manning L (2010) “A Guaranteed Minimum Income for New Zealand” Sustento Institute Christchurch, available from manning@kapiti.co.nz

Obstfeld M (1998), “The Global Capital market: Benefactor or Menace?” Draft April 27 1998, <http://elsa.berkeley.edu/~obstfeld/ast12.pdf>

Preston D (2009), “Putting Credit back into Monetary Policy: Reconstructing the New Zealand Monetary Policy Framework”, Paper for NZ Association of Economists 50th Anniversary Conference, July 1-3 2009.

Rose D (2009), “Overseas Indebtedness, Country Risk and Interest Rates”, Policy Quarterly, Vol 5 Issue 1, February 2009.

Unknown authors, (ca. 2000) “Alternative monetary policy instruments”
<http://www.rbnz.govt.nz/monpol/review/0096420.pdf>

APPENDIX 1
THE FOREIGN TRANSACTIONS SURCHARGE (FTS): SOME INTERNATIONAL
BACKGROUND AND CONSIDERATIONS

PRIMARY WTO DOCUMENTS

The primary trade documents likely to affect this FTS proposal are set out in Appendix 1A to the World Trade Agreement, 1994 that established the WTO.

They are:

- (a) Articles 12 of the 1994 Marrakesh Agreement that established the World Trade Organization (WTO), including the General Agreement on Trade in Services (GATS). These are attached as Appendix 2 to this document.
- (b) The Understanding on the Balance of Payments provisions of the General Agreement on Tariffs and Trade, 1994 (GATT). This is attached as Appendix 3 to this document. For clarification, the list of documents comprising GATT 1994 are attached as Appendix 4 to this document.
- (c) The text of Articles 11 and 12 of the General Agreement on Tariffs and Trade (GATT) 1947 is attached as Appendix 5 to this document. The articles were adopted into the GATT 1994 (the Uruguay round)

TRIM (TRADE RELATED INVESTMENT MEASURES)

The Agreement on Trade-Related Investment Measures, World Trade Agreement 1994 Annex 1A Clause 7 says a Article 3- Exceptions

“All exceptions under the GATT 1994 shall apply, as appropriate, to the provisions of this agreement.

Inconsistent TRIMS are those inconsistent with:

- (a) National treatment under Article III:4 of the GATT 1994 and
- (b) The general elimination of quantitative restrictions under Article XV:1 of the GATT:1994
- (c) The proposed Foreign Exchange Surcharge does not affect either National treatment under Article III:4 of the GATT 1994 or the

elimination of quantitative restrictions Article XV:1 of the GATT:1994

Appendix 6 Introduces the International Monetary Fund (IMF) definition of the Current Account, and related concepts. While APPENDIX 7 gives the legal text of IMF Articles I (Purpose) and VI (Capital Transfers)

APPENDIX 2.

GATS: URUGUAY ROUND MARRAKESH AGREEMENT

Article XII: Restrictions to Safeguard the Balance of Payments [back to top](#)

1. In the event of serious balance-of-payments and external financial difficulties or threat thereof, a Member may adopt or maintain restrictions on trade in services on which it has undertaken specific commitments, including on payments or transfers for transactions related to such commitments. It is recognized that particular pressures on the balance of payments of a Member in the process of economic development or economic transition may necessitate the use of restrictions to ensure, *inter alia*, the maintenance of a level of financial reserves adequate for the implementation of its programme of economic development or economic transition.

2. The restrictions referred to in paragraph 1:

- (a) shall not discriminate among Members;
- (b) shall be consistent with the Articles of Agreement of the International Monetary Fund;
- (c) shall avoid unnecessary damage to the commercial, economic and financial interests of any other Member;
- (d) shall not exceed those necessary to deal with the circumstances described in paragraph 1;
- (e) shall be temporary and be phased out progressively as the situation specified in paragraph 1 improves.

3. In determining the incidence of such restrictions, Members may give priority to the supply of services which are more essential to their economic or development programmes. However, such restrictions shall not be adopted or maintained for the purpose of protecting a particular

service sector.

4. Any restrictions adopted or maintained under paragraph 1, or any changes therein, shall be promptly notified to the General Council.

5. (a) Members applying the provisions of this Article shall consult promptly with the Committee on Balance-of-Payments Restrictions on restrictions adopted under this Article.

(b) The Ministerial Conference shall establish procedures⁽⁴⁾ for periodic consultations with the objective of enabling such recommendations to be made to the Member concerned as it may deem appropriate.

(c) Such consultations shall assess the balance-of-payment situation of the Member concerned and the restrictions adopted or maintained under this Article, taking into account, *inter alia*, such factors as:

(i) the nature and extent of the balance-of-payments and the external financial difficulties;

(ii) the external economic and trading environment of the consulting Member;

(iii) alternative corrective measures which may be available.

(d) The consultations shall address the compliance of any restrictions with paragraph 2, in particular the progressive phaseout of restrictions in accordance with paragraph 2(e).

(e) In such consultations, all findings of statistical and other facts presented by the International Monetary Fund relating to foreign exchange, monetary reserves and balance of payments, shall be accepted and conclusions shall be based on the assessment by the Fund of the balance-of-payments and the external financial situation of the consulting Member.

6. If a Member which is not a member of the International Monetary Fund wishes to apply the provisions of this Article, the Ministerial Conference shall establish a review procedure and any other procedures necessary.

APPENDIX 3

UNDERSTANDING ON THE BALANCE OF PAYMENTS PROVISION OF THE GENERAL AGREEMENT ON TARIFFS AND TRADE 1994

Members

Recognizing the provisions of Articles XII and XVIII:B of GATT 1994 and of the Declaration on Trade Measures Taken for Balance-of-Payments Purposes adopted on 28 November 1979 (BISD 26S/205-209, referred to in this Understanding as the “1979 Declaration”) and in order to clarify such provisions(1);

Hereby *agree* as follows:

Application of Measures

1. Members confirm their commitment to announce publicly, as soon as possible, time-schedules for the removal of restrictive import measures taken for Balance-of-Payments purposes. It is understood that such time-schedules may be modified as appropriate to take into account changes in the Balance-of-Payments situation. Whenever a time-schedule is not publicly announced by a Member, that Member shall provide justification as to the reasons therefor.
2. Members confirm their commitment to give preference to those measures which have the least disruptive effect on trade. Such measures (referred to in this Understanding as “price-based measures”) shall be understood to include import surcharges, import deposit requirements or other equivalent trade measures with an impact on the price of imported goods. It is understood that, notwithstanding the provisions of Article II, price-based measures taken for Balance-of-Payments purposes may be applied by a Member in excess of the duties inscribed in the Schedule of that Member. Furthermore, that Member shall indicate the amount by which the price-based measure exceeds the bound duty clearly and separately under the notification procedures of this Understanding.
3. Members shall seek to avoid the imposition of new quantitative restrictions for Balance-of-Payments purposes unless, because of a critical Balance-of-Payments situation, price-based measures cannot arrest a sharp deterioration in the external payments position. In those cases in which a Member applies quantitative restrictions, it shall provide justification as to the reasons why price-based measures are not an adequate instrument to deal with the Balance-of-Payments situation. A Member maintaining quantitative restrictions shall indicate in successive consultations the progress made in significantly reducing the incidence

and restrictive effect of such measures. It is understood that not more than one type of restrictive import measure taken for Balance-of-Payments purposes may be applied on the same product.

4. Members confirm that restrictive import measures taken for Balance-of-Payments purposes may only be applied to control the general level of imports and may not exceed what is necessary to address the Balance-of-Payments situation. In order to minimize any incidental protective effects, a Member shall administer restrictions in a transparent manner. The authorities of the importing Member shall provide adequate justification as to the criteria used to determine which products are subject to restriction. As provided in paragraph 3 of Article XII and paragraph 10 of Article XVIII, Members may, in the case of certain essential products, exclude or limit the application of surcharges applied across the board or other measures applied for Balance-of-Payments purposes. The term “essential products” shall be understood to mean products which meet basic consumption needs or which contribute to the Member’s effort to improve its Balance-of-Payments situation, such as capital goods or inputs needed for production. In the administration of quantitative restrictions, a Member shall use discretionary licensing only when unavoidable and shall phase it out progressively. Appropriate justification shall be provided as to the criteria used to determine allowable import quantities or values.

Procedures for Balance-of-Payments Consultations

5. The Committee on Balance-of-Payments Restrictions (referred to in this Understanding as the “Committee”) shall carry out consultations in order to review all restrictive import measures taken for Balance-of-Payments purposes. The membership of the Committee is open to all Members indicating their wish to serve on it. The Committee shall follow the procedures for consultations on Balance-of-Payments restrictions approved on 28 April 1970 (BISD 18S/48-53, referred to in this Understanding as “full consultation procedures”), subject to the provisions set out below.

6. A Member applying new restrictions or raising the general level of its existing restrictions by a substantial intensification of the measures shall enter into consultations with the Committee within four months of the adoption of such measures. The Member adopting such measures may request that a consultation be held under paragraph 4(a) of Article XII or paragraph 12(a) of Article XVIII as appropriate. If no such request has been made, the Chairman of the Committee shall invite the Member to hold such a consultation. Factors that may be examined in the consultation would include, *inter alia*, the introduction of new types of restrictive measures for Balance-of-Payments purposes, or an increase in

the level or product coverage of restrictions.

7. All restrictions applied for Balance-of-Payments purposes shall be subject to periodic review in the Committee under paragraph 4(b) of Article XII or under paragraph 12(b) of Article XVIII, subject to the possibility of altering the periodicity of consultations in agreement with the consulting Member or pursuant to any specific review procedure that may be recommended by the General Council.

8. Consultations may be held under the simplified procedures approved on 19 December 1972 (BISD 20S/47-49, referred to in this Understanding as “simplified consultation procedures”) in the case of least-developed country Members or in the case of developing country Members which are pursuing liberalization efforts in conformity with the schedule presented to the Committee in previous consultations. Simplified consultation procedures may also be used when the Trade Policy Review of a developing country Member is scheduled for the same calendar year as the date fixed for the consultations. In such cases the decision as to whether full consultation procedures should be used will be made on the basis of the factors enumerated in paragraph 8 of the 1979 Declaration. Except in the case of least-developed country Members, no more than two successive consultations may be held under simplified consultation procedures.

Notification and Documentation

9. A Member shall notify to the General Council the introduction of or any changes in the application of restrictive import measures taken for Balance-of-Payments purposes, as well as any modifications in time-schedules for the removal of such measures as announced under paragraph 1. Significant changes shall be notified to the General Council prior to or not later than 30 days after their announcement. On a yearly basis, each Member shall make available to the Secretariat a consolidated notification, including all changes in laws, regulations, policy statements or public notices, for examination by Members. Notifications shall include full information, as far as possible, at the tariff-line level, on the type of measures applied, the criteria used for their administration, product coverage and trade flows affected.

10. At the request of any Member, notifications may be reviewed by the Committee. Such reviews would be limited to the clarification of specific issues raised by a notification or examination of whether a consultation under paragraph 4(a) of Article XII or paragraph 12(a) of Article XVIII is required. Members which have reasons to believe that a restrictive import measure applied by another Member was taken for Balance-of-Payments purposes may bring the matter to the attention of

the Committee. The Chairman of the Committee shall request information on the measure and make it available to all Members. Without prejudice to the right of any member of the Committee to seek appropriate clarifications in the course of consultations, questions may be submitted in advance for consideration by the consulting Member.

11. The consulting Member shall prepare a Basic Document for the consultations which, in addition to any other information considered to be relevant, should include: *(a)* an overview of the Balance-of-Payments situation and prospects, including a consideration of the internal and external factors having a bearing on the Balance-of-Payments situation and the domestic policy measures taken in order to restore equilibrium on a sound and lasting basis; *(b)* a full description of the restrictions applied for Balance-of-Payments purposes, their legal basis and steps taken to reduce incidental protective effects; *(c)* measures taken since the last consultation to liberalize import restrictions, in the light of the conclusions of the Committee; *(d)* a plan for the elimination and progressive relaxation of remaining restrictions. References may be made, when relevant, to the information provided in other notifications or reports made to the WTO. Under simplified consultation procedures, the consulting Member shall submit a written statement containing essential information on the elements covered by the Basic Document.

12. The Secretariat shall, with a view to facilitating the consultations in the Committee, prepare a factual background paper dealing with the different aspects of the plan for consultations. In the case of developing country Members, the Secretariat document shall include relevant background and analytical material on the incidence of the external trading environment on the Balance-of-Payments situation and prospects of the consulting Member. The technical assistance services of the Secretariat shall, at the request of a developing country Member, assist in preparing the documentation for the consultations.

Conclusions of Balance-of-Payments Consultations

13. The Committee shall report on its consultations to the General Council. When full consultation procedures have been used, the report should indicate the Committee's conclusions on the different elements of the plan for consultations, as well as the facts and reasons on which they are based. The Committee shall endeavour to include in its conclusions proposals for recommendations aimed at promoting the implementation of Articles XII and XVIII:B, the 1979 Declaration and this Understanding. In those cases in which a time-schedule has been presented for the removal of restrictive measures taken for Balance-of-Payments purposes, the General Council may recommend that, in adhering to such a time-schedule, a Member shall be deemed to be in compliance with its

GATT 1994 obligations. Whenever the General Council has made specific recommendations, the rights and obligations of Members shall be assessed in the light of such recommendations. In the absence of specific proposals for recommendations by the General Council, the Committee's conclusions should record the different views expressed in the Committee. When simplified consultation procedures have been used, the report shall include a summary of the main elements discussed in the Committee and a decision on whether full consultation procedures are required.

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Note:

1. Nothing in this Understanding is intended to modify the rights and obligations of Members under Articles XII or XVIII:B of GATT 1994. The provisions of Articles XXII and XXIII of GATT 1994 as elaborated and applied by the Dispute Settlement Understanding may be invoked with respect to any matters arising from the application of restrictive import measures taken for Balance-of-Payments purposes. [back to text](#)

APPENDIX 4

DOCUMENTS COMPRISING GATT 1994

GENERAL AGREEMENT ON TARIFFS AND TRADE 1994

1. The General Agreement on Tariffs and Trade 1994 ("GATT 1994") shall consist of:
- (a) the provisions in the General Agreement on Tariffs and Trade, dated 30 October 1947, annexed to the Final Act Adopted at the Conclusion of the Second Session of the Preparatory Committee of the United Nations Conference on Trade and Employment (excluding the Protocol of Provisional Application), as rectified, amended or modified by the terms of legal instruments which have entered into force before the date of entry into force of the WTO Agreement;
 - (b) the provisions of the legal instruments set forth below that have entered into force under the GATT 1947 before the date of entry into force of the WTO Agreement:
 - (i) protocols and certifications relating to tariff concessions;
 - (ii) protocols of accession (excluding the provisions (a) concerning provisional application and withdrawal of provisional application and (b) providing that Part II of GATT 1947 shall be applied provisionally to the fullest extent not inconsistent with legislation existing on the date of the Protocol);
 - (iii) decisions on waivers granted under Article XXV of GATT 1947 and still in force on the date of entry into force of the WTO Agreement¹;
 - (iv) other decisions of the CONTRACTING PARTIES to GATT 1947;
 - (c) the Understandings set forth below:

- (i) Understanding on the Interpretation of Article II:1(b) of the General Agreement on Tariffs and Trade 1994;
- (ii) Understanding on the Interpretation of Article XVII of the General Agreement on Tariffs and Trade 1994;
- (iii) Understanding on Balance-of-Payments Provisions of the General Agreement on Tariffs and Trade 1994;
- (iv) Understanding on the Interpretation of Article XXIV of the General Agreement on Tariffs and Trade 1994;
- (v) Understanding in Respect of Waivers of Obligations under the General Agreement on Tariffs and Trade 1994;
- (vi) Understanding on the Interpretation of Article XXVIII of the General Agreement on Tariffs and Trade 1994; and
- (d) the Marrakesh Protocol to GATT 1994.

The waivers covered by this provision are listed in footnote 7 on pages 11 and 12 in Part II of document MTN/FA of 15 December 1993 and in MTN/FA/Corr.6 of 21 March 1994. The Ministerial Conference shall establish at its first session a revised list of waivers covered by this provision that adds any waivers granted under GATT 1947 after 15 December 1993 and before the date of entry into force of the WTO Agreement, and deletes the waivers which will have expired by that time.

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2. Explanatory Notes

(a) The references to "contracting party" in the provisions of GATT 1994 shall be deemed to read "Member". The references to "less-developed contracting party" and "developed contracting party" shall be deemed to read "developing country Member" and "developed country Member".

The references to "Executive Secretary" shall be deemed to read "Director-General of the WTO".

(b) The references to the CONTRACTING PARTIES acting jointly in Articles XV:1, XV:2, XV:8, XXXVIII and the Notes *Ad* Article XII and XVIII; and in the provisions on special exchange

agreements in Articles XV:2, XV:3, XV:6, XV:7 and XV:9 of GATT 1994 shall be deemed to be references to the WTO. The other functions that the provisions of GATT 1994 assign to the CONTRACTING PARTIES acting jointly shall be allocated by the Ministerial Conference.

(c) (i) The text of GATT 1994 shall be authentic in English, French and Spanish.

(ii) The text of GATT 1994 in the French language shall be subject to the rectifications of terms indicated in Annex A to document MTN.TNC/41.

(iii) The authentic text of GATT 1994 in the Spanish language shall be the text in Volume IV of the Basic Instruments and Selected Documents series, subject to the rectifications of terms indicated in Annex B to document MTN.TNC/41.

3. (a) The provisions of Part II of GATT 1994 shall not apply to measures taken by a Member under specific mandatory legislation, enacted by that Member before it became a contracting party to GATT 1947, that prohibits the use, sale or lease of foreign-built or foreign-reconstructed vessels in commercial applications between points in national waters or the waters of an exclusive economic zone.

This exemption applies to: (a) the continuation or prompt renewal of a non-conforming provision of such legislation; and (b) the amendment to a non-conforming provision of such legislation to the extent

that the amendment does not decrease the conformity of the provision with Part II of GATT 1947. This exemption is limited to measures taken under legislation described above that is notified and specified prior to the date of entry into force of the WTO Agreement. If such legislation is subsequently

modified to decrease its conformity with Part II of GATT 1994, it will no longer qualify for coverage under this paragraph.

(b) The Ministerial Conference shall review this exemption not later than five years after the date of entry into force of the WTO Agreement and thereafter every two years for as long as the exemption is in force for the purpose of examining whether the conditions which created the need for

the exemption still prevail.

(c) A Member whose measures are covered by this exemption shall annually submit a detailed

statistical notification consisting of a five-year moving average of actual and expected deliveries of relevant vessels as well as additional information on the use, sale, lease or repair of relevant vessels covered by this exemption.

(d) A Member that considers that this exemption operates in such a manner as to justify a reciprocal and proportionate limitation on the use, sale, lease or repair of vessels constructed in the territory of the Member invoking the exemption shall be free to introduce such a limitation subject to prior notification to the Ministerial Conference.

(e) This exemption is without prejudice to solutions concerning specific aspects of the legislation covered by this exemption negotiated in sectoral agreements or in other fora.

APPENDIX 5

TEXT OF GATT ARTICLE XI

Article XI*: General Elimination of Quantitative Restrictions

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1. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.

2. The provisions of paragraph 1 of this Article shall not extend to the following:

- (a) Export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party;
- (b) Import and export prohibitions or restrictions necessary to the application of standards or regulations for the classification, grading or marketing of commodities in international trade;
- (c) Import restrictions on any agricultural or fisheries product, imported in any form,* necessary to the enforcement of governmental measures which operate:
 - (i) to restrict the quantities of the like domestic product permitted to be marketed or produced, or, if there is no substantial domestic production of the like product, of a domestic product for which the imported product can be directly

substituted; or

- (ii) to remove a temporary surplus of the like domestic product, or, if there is no substantial domestic production of the like product, of a domestic product for which the imported product can be directly substituted, by making the surplus available to certain groups of domestic consumers free of charge or at prices below the current market level; or
- (iii) to restrict the quantities permitted to be produced of any animal product the production of which is directly dependent, wholly or mainly, on the imported commodity, if the domestic production of that commodity is relatively negligible.

Any contracting party applying restrictions on the importation of any product pursuant to subparagraph (c) of this paragraph shall give public notice of the total quantity or value of the product permitted to be imported during a specified future period and of any change in such quantity or value. Moreover, any restrictions applied under (i) above shall not be such as will reduce the total of imports relative to the total of domestic production, as compared with the proportion which might reasonably be expected to rule between the two in the absence of restrictions. In determining this proportion, the contracting party shall pay due regard to the proportion prevailing during a previous representative period and to any special factors* which may have affected or may be affecting the trade in the product concerned.

TEXT OF GATT ARTICLE XII

Article XII*: Restrictions to Safeguard the Balance of Payments [back to top](#)

1. Notwithstanding the provisions of paragraph 1 of Article XI, any contracting party, in order to safeguard its external financial position and its balance of payments, may restrict the quantity or value of merchandise permitted to be imported, subject to the provisions of the following paragraphs of this Article.

2. (a) Import restrictions instituted, maintained or intensified by a contracting party under this Article shall not exceed those necessary:

- (i) to forestall the imminent threat of, or to stop, a serious decline in its monetary reserves; or
- (ii) in the case of a contracting party with very low monetary reserves, to achieve a reasonable rate of increase in its reserves.

Due regard shall be paid in either case to any special factors which may be affecting the reserves of such contracting party or its need for reserves, including, where special external credits or other resources are available to it, the need to provide for the appropriate use of such credits or resources.

(b) Contracting parties applying restrictions under subparagraph (a) of this paragraph shall progressively relax them as such conditions improve, maintaining them only to the extent that the conditions specified in that sub-paragraph still justify their application. They shall eliminate the restrictions when conditions would no longer justify their institution or maintenance under that subparagraph.

3. (a) Contracting parties undertake, in carrying out their domestic policies, to pay due regard to the need for maintaining or restoring equilibrium in their balance of payments on a sound and lasting basis and to the desirability of avoiding an uneconomic employment of productive resources. They recognize that, in order to achieve these ends, it is desirable so far as possible to adopt measures which expand rather than contract international trade.

(b) Contracting parties applying restrictions under this Article may determine the incidence of the restrictions on imports of different products or classes of products in such a way as to give priority to the importation of those products which are more essential.

(c) Contracting parties applying restrictions under this Article undertake:

- (i) to avoid unnecessary damage to the commercial or economic interests of any other contracting party;*
- (ii) not to apply restrictions so as to prevent unreasonably the importation of any description of goods in minimum commercial quantities the exclusion of which would impair regular channels of trade; and

- (iii) not to apply restrictions which would prevent the importations of commercial samples or prevent compliance with patent, trade mark, copyright, or similar procedures.

(*d*) The contracting parties recognize that, as a result of domestic policies directed towards the achievement and maintenance of full and productive employment or towards the development of economic resources, a contracting party may experience a high level of demand for imports involving a threat to its monetary reserves of the sort referred to in paragraph 2 (*a*) of this Article. Accordingly, a contracting party otherwise complying with the provisions of this Article shall not be required to withdraw or modify restrictions on the ground that a change in those policies would render unnecessary restrictions which it is applying under this Article.

4. (*a*) Any contracting party applying new restrictions or raising the general level of its existing restrictions by a substantial intensification of the measures applied under this Article shall immediately after instituting or intensifying such restrictions (or, in circumstances in which prior consultation is practicable, before doing so) consult with the CONTRACTING PARTIES as to the nature of its balance of payments difficulties, alternative corrective measures which may be available, and the possible effect of the restrictions on the economies of other contracting parties.

(*b*) On a date to be determined by them,* the CONTRACTING PARTIES shall review all restrictions still applied under this Article on that date. Beginning one year after that date, contracting parties applying import restrictions under this Article shall enter into consultations of the type provided for in subparagraph (*a*) of this paragraph with the CONTRACTING PARTIES annually.

(*c*) (i) If, in the course of consultations with a contracting party under subparagraph (*a*) or (*b*) above, the CONTRACTING PARTIES find that the restrictions are not consistent with provisions of this Article or with those of Article XIII (subject to the provisions of Article XIV), they shall indicate the nature of the inconsistency and may advise that the restrictions be suitably modified.

(ii) If, however, as a result of the consultations, the CONTRACTING PARTIES determine that the restrictions are being applied in a manner involving an inconsistency of a serious nature with the provisions of this Article or with those of Article XIII (subject to the provisions of Article XIV) and that damage to the trade of any contracting

party is caused or threatened thereby, they shall so inform the contracting party applying the restrictions and shall make appropriate recommendations for securing conformity with such provisions within the specified period of time. If such contracting party does not comply with these recommendations within the specified period, the CONTRACTING PARTIES may release any contracting party the trade of which is adversely affected by the restrictions from such obligations under this Agreement towards the contracting party applying the restrictions as they determine to be appropriate in the circumstances.

(d) The CONTRACTING PARTIES shall invite any contracting party which is applying restrictions under this Article to enter into consultations with them at the request of any contracting party which can establish a *prima facie* case that the restrictions are inconsistent with the provisions of this Article or with those of Article XIII (subject to the provisions of Article XIV) and that its trade is adversely affected thereby. However, no such invitation shall be issued unless the CONTRACTING PARTIES have ascertained that direct discussions between the contracting parties concerned have not been successful. If, as a result of the consultations with the CONTRACTING PARTIES, no agreement is reached and they determine that the restrictions are being applied inconsistently with such provisions, and that damage to the trade of the contracting party initiating the procedure is caused or threatened thereby, they shall recommend the withdrawal or modification of the restrictions. If the restrictions are not withdrawn or modified within such time as the CONTRACTING PARTIES may prescribe, they may release the contracting party initiating the procedure from such obligations under this Agreement towards the contracting party applying the restrictions as they determine to be appropriate in the circumstances.

(e) In proceeding under this paragraph, the CONTRACTING PARTIES shall have due regard to any special external factors adversely affecting the export trade of the contracting party applying the restrictions.*

(f) Determinations under this paragraph shall be rendered expeditiously and, if possible, within sixty days of the initiation of the consultations.

5. If there is a persistent and widespread application of import restrictions under this Article, indicating the existence of a general disequilibrium which is restricting international trade, the CONTRACTING PARTIES shall initiate discussions to consider whether other measures might be taken, either by those contracting parties the balance of payments of which are under pressure or by those the balance of payments of which are tending to be exceptionally favourable, or by any

appropriate intergovernmental organization, to remove the underlying causes of the disequilibrium. On the invitation of the CONTRACTING PARTIES, contracting parties shall participate in such discussions.

APPENDIX 6

IMF DEFINITION OF CURRENT ACCOUNT AND RELATED CONCEPTS (WIKIPEDIA “BALANCE OF PAYMENTS”)

IMF definition

The [IMF](#) definition: "Balance of Payments is a statistical statement that summarizes transactions between residents and nonresidents during a period."^[1] The balance of payments comprises the [current account](#), the [capital account](#), and the [financial account](#). "Together, these accounts balance in the sense that the sum of the entries is conceptually zero."^[1]

The current account consists of the goods and services account, the primary income account and the secondary income account.

The financial account records transactions that involve financial assets and liabilities and that take place between residents and nonresidents.

The capital account in the international accounts shows (1) capital transfers receivable and payable; and (2) the acquisition and disposal of nonproduced nonfinancial assets.

In economic literature, "capital account" is often used to refer to what is now called the financial account and remaining capital account in the IMF manual and in the System of National Accounts. The use of the term capital account in the IMF manual is designed to be consistent with the System of National Accounts, which distinguishes between capital transactions and financial transactions.^[2]

Components

Current account balance 2006^[3]

The Balance of Payments for a country is the sum of the [current account](#), the [capital account](#), the financial account.

Current account

Main article: [Current account](#)

The current account is the net change in current assets from trade in goods and services ([balance of trade](#)), net factor income (such as dividends and interest payments from abroad), and net unilateral transfers from abroad (such as foreign aid, grants, gifts, etc).

[Income Account](#)

The income account accounts mostly for investment income from dividends and interest on credit and payments on foreign taxes.

Strangely, the net of the income account of the United States has been negligible as a percentage of total debits or credits for decades, an extremely outlying instance.

[Unilateral Transfers](#)

Unilateral transfers are usually conducted between private parties. For example, Mexico has a large surplus of remittances from the United States sent by emigrant workers to loved ones back home.

India has the world's largest surplus of remittances. [\[4\]](#)

[Capital account \(IMF/economics\)](#)

According to the IMF's definition, the capital account "records the international flows of transfer payments relating to capital items". It therefore records a country's inflows and outflows of payments and transfer of ownership of fixed assets (capital goods). Examples of such goods could be factories or heavy machinery transferred to or from abroad and so on. Summing up: the capital account accounts for the transfer of capital goods. (source: see book reference list)

In economics, the term capital account usually refers to what the IMF calls the financial account and capital account, combined.

[Financial account \(IMF\) / Capital account \(economics\)](#)

Main article: [Capital account](#)

According to the IMF's definition, the financial account is the net change in foreign ownership of investment assets. In economics, the term capital account has historically been used to refer to the IMF's definition of the capital and financial accounts.

The accounting entries in the financial account record the purchase and sale of domestic and foreign investment assets. These assets are divided into categories such as [foreign direct investment](#) (FDI), [portfolio investment](#) (which includes trade in stocks and bonds), and other investment (which includes transactions in currency and bank deposits).

If foreign ownership of domestic financial assets has increased more quickly than domestic ownership of foreign assets in a given year, then the domestic country has a financial account surplus. On the other hand, if domestic ownership of foreign financial assets has increased more quickly than foreign ownership of domestic assets, then the domestic country has a financial account deficit.

The United States persistently has the largest capital (and financial) surplus in the world. [\[5\]](#)

The United States receives roughly twice the rate of return on all foreign investment than domestic investment by foreigners.

[Official international reserves](#)

The official international reserve account records the change in stock of official international reserve assets (also known as foreign exchange reserves) at the country's monetary authority . Frequently, this is the responsibility of a government established central bank. Although usually negligible, official international reserve assets held at private institutions are included as well. Official international reserves include [official gold reserves](#), foreign currencies and foreign currency denominated bonds (called [foreign exchange reserves](#)), [IMF Special Drawing Rights](#) (SDRs) and other foreign assets. Changes in official international reserves equal the differences between current account (plus capital account) and the non-reserve portion of the financial account.

Decreases in official international reserves indicate the central bank is

selling the assets in return for domestic currency denominated assets, usually to maintain the value of the domestic currency. Increases in official international reserves indicate that the central bank is buying the assets in return for domestic currency denominated assets, usually to maintain the value of a foreign currency. Countries that attempt to influence the value of their currencies can have large net changes in their official reserves. In 2003 and 2004, the Bank of Japan increased its official international reserves by more than US\$330 billion

Net errors and omissions

This is the last component of the balance of payments and principally exists to correct any possible errors made in accounting for the three other accounts. These errors are common to occur due to the complexity of the calculations and difficulty in obtaining measurements. [6]

Omissions are rarely used usually by governments to conceal transactions. They are often referred to as "balancing items".

Balance of payments identity

The balance of payments [identity](#) states that:

Current Account = Capital Account + Financial Account + Net Errors and Omissions

This is a convention of [double entry accounting](#), where all debit entries must be booked along with corresponding credit entries such that the net of the Current Account will have a corresponding net of the Capital and Financial Accounts.

.....[This produces a accounting balance of payments identity]....

The basic principle behind the balance of payments identity is that a country can only consume more than it can produce (a current account deficit) if it is supplied capital from abroad (a capital account surplus). [7] From [Alfred Marshall's](#) Money, Credit, and Commerce, "In short, when a country lends abroad £1,000,000 in any form, she gives foreigners the power of taking from her £1,000,000 of goods".

[Mercantile](#) thought prefers a so-called balance of payments surplus where the net current account is in surplus or, more specifically, a positive balance of trade.

A balance of payments equilibrium is defined as a condition where the sum of debits and credits from the current account and the capital and financial accounts equal to zero; in other words, equilibrium is where

This is a condition where there are no changes in Official Reserves.^[8] When there is no change in Official Reserves, the balance of payments may also be stated as follows:

or:

Canada's Balance of Payments currently satisfies this criterion. It is the only large monetary authority with no Changes in Reserves.^[9]

History

Historically these flows simply were not carefully measured due to difficulty in measurement, and the flow proceeded in many commodities and currencies without restriction, [clearing](#) being a matter of judgment by individual private [banks](#) and the governments that licensed them to operate. [Mercantilism](#) was a theory that took special notice of the balance of payments and sought simply to monopolize [gold](#), in part to keep it out of the hands of potential military opponents (a large "war chest" being a prerequisite to start a war, whereupon much trade would be embargoed) but mostly upon the theory that large domestic gold supplies will provide lower interest rates. This theory has not withstood the test of facts.

As mercantilism gave way to [classical economics](#), and private currencies were taxed out of existence, the market systems were later regulated in the 19th century by the [gold standard](#) which linked [central banks](#) by a convention to redeem "hard currency" in gold. After [World War II](#) this system was replaced by the [Bretton Woods](#) institutions (the [International Monetary Fund](#) and [Bank for International Settlements](#)) which pegged currency of participating nations to the [US dollar](#) and German mark, which was redeemable nominally in gold. In the 1970s this redemption ceased, leaving the system with respect to the United States without a formal base, yet the peg to the Mark somewhat remained. Strangely, since leaving the gold standard and abandoning interference with Dollar foreign exchange, the surplus in the Income Account has decayed

exponentially, and has remained negligible as a percentage of total debits or credits for decades. Some consider the system today to be based on [oil](#), a universally desirable commodity due to the dependence of so much [infrastructural capital](#) on [oil supply](#); however, no central bank stocks reserves of crude oil. Since [OPEC](#) oil transacts in US dollars, and most major currencies are subject to sudden large changes in price due to unstable central banks, the US dollar remains a [reserve currency](#), but is increasingly challenged by the [euro](#), and to a small degree the [pound](#). The United States has been running a current account deficit since the early 1980s. The U.S. current account deficit has grown considerably in recent years, reaching record high levels in 2006 both in absolute terms (\$758 billion) and as a fraction of GDP (6%). [Milton Friedman \(Balance of Trade\)](#) has tried to explain that cheaper, riskier, foreign capital is exchanged for "riskless", expensive, US capital and that the difference is made up with extra goods and services. [\[citation needed\]](#) Nevertheless, Friedman's interpretation is incomplete with respect to countries that interfere with the market prices of their [currencies](#) through the changes in their reserves so only applies to Canada and, to a lesser extent, the United States.

See also

[Current account](#)

[Capital account](#)

[Balance of trade](#)

[Floating currency](#)

[Capital surplus](#)

[International investment position](#)

[Foreign exchange reserves](#)

[Sovereign wealth fund](#)

[Money supply](#)

[United States public debt](#)

[Pink Book](#)

[Milton Friedman](#)

[IMF Balance of Payments Manual](#)

[List of countries by current account balance](#) (different from balance of payments)

References

- ^ a b [IMF Balance of Payments Manual](#), Chapter 2 "Overview of the Framework", Paragraph 2.15 [1]
- ^ [IMF Balance of Payments Manual](#), Chapter 13 "Capital Account", Paragraph 13.3. demand pull inflation - this type of inflation tends to be associated with a situation of boom in the economy with a positive output gap.[2]
- ^ [Current account balance, U.S. dollars, Billions](#) from [IMF World Economic Outlook Database](#), April 2008
- ^ [Remittance Trends in 2007 - World Bank](#)
- ^ [Chapter 6 - The US Capital Account Surplus](#)
- ^ [Coyle on the Soulful Science - EconTalk](#)
- ^ <http://www.econlib.org/library/Enc/BalanceofPayments.html>
Herbert Stein, "The Balance of Payments" in The Concise Encyclopedia of Economics.
- ^ <http://www-personal.umich.edu/~alandear/glossary/b.html> Glossery of International Economics
- ^ ["Bank of Canada - Intervention in the Exchange Market - Fact Sheet - The Bank in Brief"](#).
Economics 8th Edition by David Begg, Stanley Fischer and Rudiger Dornbusch, McGraw-Hill
Economics Third Edition by Alain Anderton, Causeway Press
AS and A Level Economics

APPENDIX 7 IMF ARTICLES OF AGREEMENT PART 1 PURPOSES AND PART VI CAPITAL TRANSFERS,

Article I - Purposes

The purposes of the International Monetary Fund are:

- (i) To promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems.
- (ii) To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.

- (iii) To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.
- (iv) To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade.
- (v) To give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.
- (vi) In accordance with the above, to shorten the duration and lessen the degree of disequilibrium in the international balances of payments of members.

The Fund shall be guided in all its policies and decisions by the purposes set forth in this Article.

Article VI - Capital Transfers

Section 1. Use of the Fund's general resources for capital transfers

(a) A member may not use the Fund's general resources to meet a large or sustained outflow of capital except as provided in Section 2 of this Article, and the Fund may request a member to exercise controls to prevent such use of the general resources of the Fund. If, after receiving such a request, a member fails to exercise appropriate controls, the Fund may declare the member ineligible to use the general resources of the Fund.

(b) Nothing in this Section shall be deemed:

- (i) to prevent the use of the general resources of the Fund for capital transactions of reasonable amount required for the expansion of exports or in the ordinary course of trade, banking, or other business; or
- (ii) to affect capital movements which are met out of a member's own resources, but members undertake that such capital movements will be in accordance with the purposes of the Fund.

Section 2. Special provisions for capital

transfers

A member shall be entitled to make reserve tranche purchases to meet capital transfers.

Section 3. Controls of capital transfers

Members may exercise such controls as are necessary to regulate international capital movements, but no member may exercise these controls in a manner which will restrict payments for current transactions or which will unduly delay transfers of funds in settlement of commitments, except as provided in Article VII, Section 3(*b*) and in Article XIV, Section 2.