

KIWI ECONOMICS

FRAMEWORK FOR ANALYSIS OF THE PRICE LEVEL & INFLATION

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Dedication

Kiwi Economics dedicated to the memory and work of Kiingi Taawhiao (1822-1894). For his vision, courage and leadership amid enormous obstacles in building his 'own house' to serve as an example to all people. In establishing his own currency and trading banks (Te Peeke o Aotearoa), Kiingi Taawhiao taught that financing is never a constraint for the sole 'currency issuer'. Instead, he emphasized the real constraint is whether we as the 'currency users', understand our reliance upon the fruit of our precious natural environment to sustain ourselves and generations to come.

Tongikura Mana Motuhake (*An Emancipation Proclamation*)

Maaku anoo, hei hanga i tooku nei whare.

Ko ngaa poupou, he Maahoe, he Patetee. Ko te taahuuhuu he Hiinau.

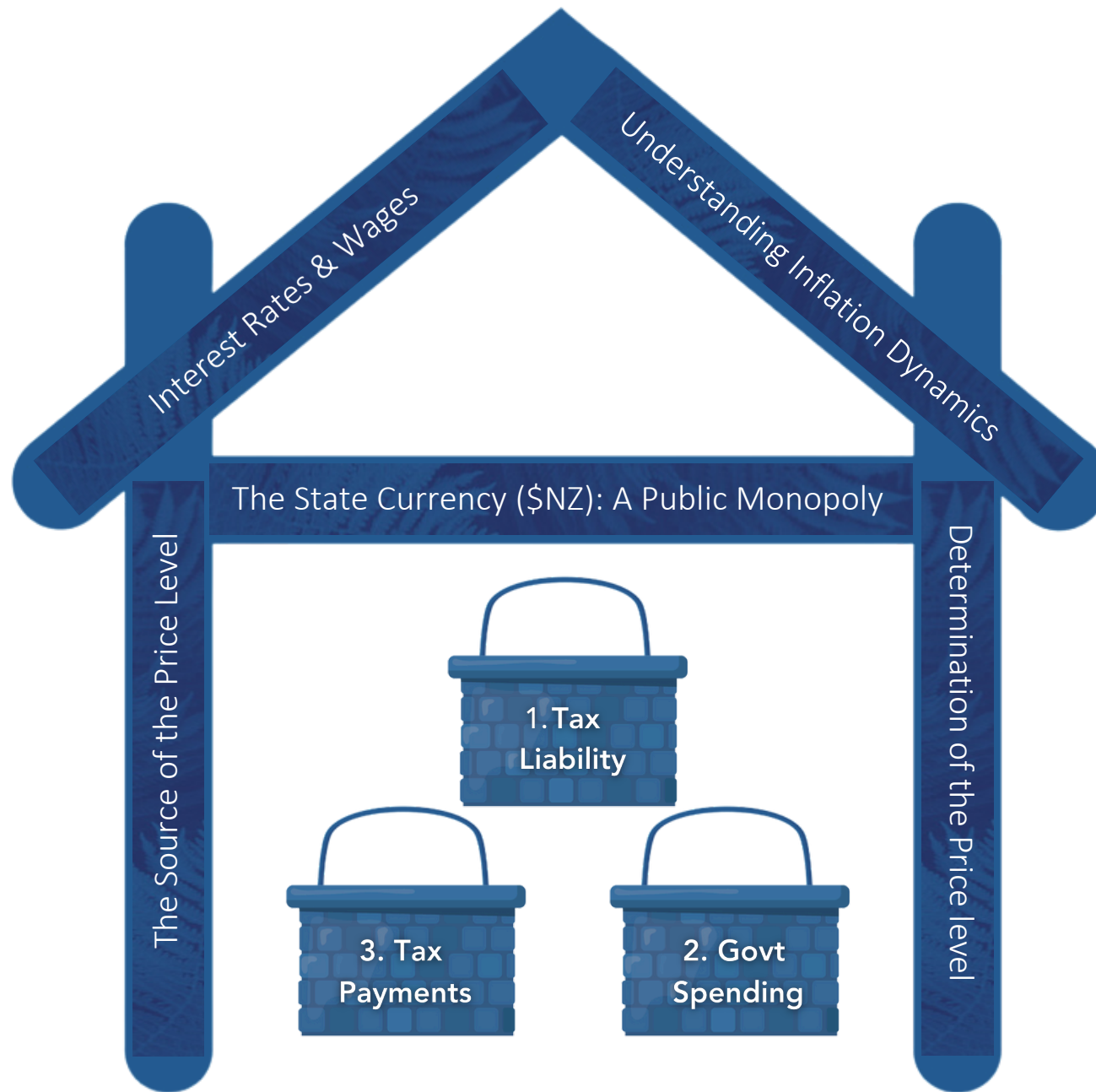
Kia whakatupu ki te hua o te rengarenga, me whakapari ki te hua o te Kawariki.

As for me, I shall build my own house.

The ridge pole will be of Hiinau, the supporting post of Maahoe and Patetee.

*Those who inhabit the house shall be raised on the fruit of the Rengarenga,
and nurtured on the fruit of the Kawariki.*

Kiingi Taawhiao – Tuukaaroto Matutaera Pootatou Te Wherowhero (1822-1894)



‘Kiwi Economics - Framework for Analysis of the Price Level & Inflation’

The purpose of this chapter is to present a framework for the analysis of the price level and inflation.

Kiwi Economics as expressed through ‘The Kiwi Economics Framework’ is currently the only school of economic thought that, in direct contrast to other schools of thought throughout the world, that specifically models both the source of the price level and the dynamics behind changes in the price level. Kiwi Economics presents the most accurate understanding of inflation as academically defined and the cause of involuntary unemployment of people willing and able to work, as part of its general framework for analysis that applies to all currency regimes.

We seek to clarify ‘inflation’ under the textbook definition which is ‘a continuous increase in the price level.’ However, under close examination this turns out to be elusive at best. At any point in time the price level is presumably both static and quantitatively undefinable, yet even the most sophisticated central bank (*eg Reserve Bank of NZ – RBNZ*) research uses abstractions, the most familiar being the Consumer Price Index (CPI) which consists of selected goods and services designed to reflect a cost of living rather than ‘the price level.’ Nor can the RBNZ determine a continuous rate of change of this abstraction. They can only tell you how the CPI has changed in the past, and they can attempt to forecast future changes. Central Banks generally, see the source of the price level as entirely historic, which can only be derived from either an unmentioned infinite regression into the past that, in theory, predates the birth of the universe, or derived from some accident of history.

The Kiwi Economics framework for analysis is fully applicable to both fixed and floating exchange rate regimes. This discussion is, however, limited to currencies with floating exchange rates such as Aotearoa New Zealand. The New Zealand Central Government will be referred to hereafter as the 'state'.

The Kiwi Economics '3 Step Monetary Sequence'

Kiwi Economics presumes that the state desires to provision itself via a monetary system, proceeding as follows:

1. Imposition of coercive tax liabilities
2. State spending
3. Payment of taxes and purchase of state securities



Again, with a more extended narrative:

1. The state imposes tax liabilities with penalties for non-payment. The tax credits required for the payment of taxes are units of the state's currency, issued only by the state. The tax liabilities, by design, consequently create sellers of goods and services seeking the appropriate tax credits in exchange, the latter by definition being unemployment.
2. The state then provisions itself by spending its currency to purchase the goods and services it desires.
3. Taxes can then be paid and, if offered for sale by the state, state securities can then be purchased.

Note: *State spending in excess of tax receipts remains outstanding as the net financial assets in the economy that fulfill savings desires until used to pay taxes.*

The State Currency (\$NZ): A Public Monopoly

The 3 Step Monetary Sequence begins with the imposition of coercive tax liabilities to create a notional demand for that currency. That notional demand is the sum of units of the currency needed to pay taxes and fund residual savings desires as evidenced by what is offered for sale by agents seeking that currency in exchange for their goods and services. With today's state currencies, for example, the non-government sectors offer goods and services for sale until they have satisfied their need to pay taxes and their desires to net save.

The state monetary system is a public monopoly with the state the sole supplier of that which it requires for the payment of taxes. The state therefore logically and necessarily dictates terms of exchange when spending to purchase goods and services, with the quantity that it can buy inversely related to the prices it pays. For example, if the tax liabilities are \$100 and savings desires are \$20, and the state offers to pay \$1 per day for labour, the state will be able to obtain 120 days of labour. If instead the state pays \$2 per day for labour, it will obtain only 60 days of labour. In both examples the non-government sectors are selling labour at the state's price to the point where agents of those sectors have sufficient funds to comply with their tax liabilities and to net save as desired.

For a given fixed nominal tax liability and savings desire, when paying higher prices, the state both redefines the value of the currency downward and purchases less in real terms. Therefore, the state can, as a matter of arithmetic, when paying higher prices only buy more real goods and services by increasing tax liabilities or through increased savings desires. That is, to return to the prior example where tax liabilities were \$100, savings desires \$20, and the labour wage was increased from \$1 per day to \$2 per day, a tax increase to \$200 or an increase of savings desires to \$40 would result in the state obtaining the same 120 days of labour as it received with the \$1 wage.

$$\text{Labour (days of work)} = \frac{\text{Tax Liability} + \text{Savings Desire}}{\text{Price paid by Govt (\$NZ)}}$$

In Aotearoa New Zealand, tax liabilities tend to increase as the NZ government pays higher prices due to state and local transactions taxes that are based on prices. These include income taxes where higher nominal incomes result in higher tax liabilities, and sales taxes where higher prices also result in higher tax liabilities.

Additionally, savings desires are based on real rather than nominal considerations. Retirement savings desires, for example, are based on the presumed cost of living during retirement years. As prices rise, those nominal savings desires rise accordingly. Business liquidity needs and inventory and receivables financing needs also rise as prices rise.

Therefore, in general, an economy experiencing a continuous increase in prices requires a continuous nominal increase in what is casually called 'the money supply' that constitutes the economy's net savings of financial assets. Without this increase, real savings desires cannot be achieved, as then evidenced by unemployment and excess capacity in general. This, in fact, is our narrative for the 1979 global recession. Fiscal balance tightened as tax liabilities increased faster than government spending, and the real public debt growth further decelerated due to the increases in the price level, with the combination driving the economy into a severe recession.

The Source of the Price Level

With the state the sole supplier of that which it demands for payment of taxes (\$NZ), the economy needs the state's currency and therefore state spending sets the terms of exchange; the price level is therefore a function of prices paid by the state when it spends.

There are two primary dynamics involved in the determination of the price level. The first is the introduction of absolute value of the state's numeraire, which takes place by the prices the state pays when it spends. Moreover, the only information with regards to absolute value as measured in units of the state's currency is the information transmitted by state spending. Therefore, all nominal prices can necessarily be traced back to prices the state pays when spending its currency.

The second dynamic is the transmission of this information by markets allocating by price as they express indifference levels between buyers and sellers, and all in the context of the state's institutional structure.

The price level, therefore, consists of prices dictated by government spending policy along with all other prices subsequently derived by market forces operating within government institutional structure.

The Financial Agents of the State (*The Banks*)

The NZ Government has designated agents to work on its behalf. These include the Reserve Bank of New Zealand (RBNZ) which operates the monetary system, commercial banks that are state regulated and supervised, and the NZ Treasury which executes purchases and sales as directed by legislation, by instructing the RBNZ to debit or credit appropriate accounts.

Commercial banks have demand accounts at the RBNZ called reserve accounts. State tax liabilities are discharged by either the payment of RBNZ Notes (cash) or by the RBNZ debiting a member bank reserve account, and, if it is a bank client initiating the payment, by the member bank simultaneously debiting the bank account of the client making the payment. Non-bank entities can only make payments to the RBNZ indirectly through a RBNZ member bank as a correspondent, or by using cash.

Banks, as agents of the government, likewise influence the price level, as bank lending supports client borrowing to spend on goods and services. Government regulation and supervision controls the prices paid with funds borrowed from the commercial banks. And, with the unlimited liquidity inherent in a floating exchange rate policy, without regulation banks could lend without limit and without collateral requirements or other means of controlling the prices paid by borrowers, which could quickly impair the government's ability to provision itself and devalue the currency.

Determination of the Price Level

The state sets the terms of exchange for its currency with the prices it pays when it spends, and not per se by the quantity of currency that it spends. For example, if the state has an open-ended offer to hire soldiers at \$50,000 per year, the price level as thereby defined will remain constant regardless of how many soldiers are hired and regardless of the state's total spending. The state has set the value of its numeraire exogenously, providing that information of absolute value that market forces then utilize to allocate by price with exchange values of other goods and services determined in the marketplace. Without the state supplied information, however, there would be no expression of relative value in terms of that currency.

Should the state decide, for example, to increase the price it pays for its soldiers to \$55,000 per year, it would be redefining the value of its currency downward and increasing the general price level by 10%, as market forces reflect that increase in the normal course of allocating by price and determining relative value. And for as long as the state continues to pay soldiers \$55,000 per year, assuming constant relative values, the price level will remain unchanged. And, for example, the state would have to continually increase the rate of pay by 10% annually to support a continuous annual increase of the price level of 10%.

Understanding Inflation Dynamics

We begin with an academic definition of the rate of inflation: *“The continuous increase in the term structure of prices faced by economic agents today for purchases and sales for future delivery dates.”*

This can also be referred to as ‘forward pricing,’ and it’s an expression of the policy rate of interest determined by central bank (RBNZ) policy. Kiwi Economics makes a distinction between changes over time of the price level vs the rate of inflation, which is expressed by the current term structure of prices.

The price level changes with prices paid by the state when it spends (fiscal policy) while changes in the term structure of policy interest rates (monetary policy) alter the term structure of prices. And while the term structure of prices is not a forecast of changes in the price level, that is not to say it doesn’t influence the future direction of the price level.

Interest rate policy also functions as a fiscal transfer as the state is a net payer of interest to the other sectors of the economy. With public debt levels in excess of 100% of GDP, for example, a 1% rate hike, ultimately adds interest income payments of over 1% of GDP to the economy. This increase in state spending directly increases nominal incomes, and, to the extent agents receiving the interest payments increase their spending, state interest payments support sales, output, and employment.

State interest expense also reduces fiscal space as they partially satisfy the need to pay taxes and to net save created by state tax liabilities, which means there will be that many fewer goods and services offered for sale to comply with the remaining tax liabilities. This means the state's real purchases of goods and services are reduced by interest payments as per the same framework for analysis discussed in the previous examples.

Therefore, as described above, we conclude that the state's payment of interest, implemented by the state to slow the rate of growth and work to counter price increases, is far more likely to do the reverse.

Also of note is that interest payments are necessarily to those who already have money and are also paid proportionately to the amount of money one has. We label and characterize a positive interest rate policy as '*basic income for those who already have money*' which, when stated as such, has no political support whatsoever. Yet, as monetary policy that, presumably, fights inflation, central bank (RBNZ) rate increases receive widespread support.

To summarize, we see interest rate policy as both backwards and confused. First, the rate of inflation academically defined is an expression of the RBNZ's policy rates, so rate hikes directly increase that measure of inflation. Second, rate hikes constitute additional state deficit spending, which tends to also be an inflationary bias given current institutional structure. And third, the payment of funds only to those who already have money as a cure for what's believed is inflation, does not serve public purpose but rather exacerbate societal wealth distribution inequalities.

Interest Rates & Wages

An increase in the Central Bank policy rate in the first instance increases state deficit spending and total income in the economy. This means wages are then a smaller percentage of total income which to some degree, depending on propensities to spend, implies that the relative value of wages has decreased.

This further implies that if wages are indexed to the general price level in the context of a positive policy interest rate, an increase in the wages will cause a larger increase in the general price level, which will then trigger a higher wage, in an accelerating spiral. However, in the context of a 0% rate policy, a wage increase would not be magnified by this process.

This combination of wage indexation and high policy rates of interest selectively observed in nations experiencing undesired increases in the price level, ironically contributes to accelerating rates of increase the interest rate policy is meant to contain. One might characterize this misinformed policy as 'confusing the monetary gas pedal for the brake.'

The Hierarchy of Demand

Demand originates with the state. Without state spending the value of the currency is unspecified and there is no aggregate demand. Only subsequent to state spending can the currency obtain absolute value and non-government spending take place.

Conclusion

This chapter provides a framework for the analysis of the price level and inflation. The 3 Step Monetary Sequence is that of the currency itself as a public monopoly, with the state setting nominal demand with its tax liabilities, as well as providing the tax credits that allow compliance with those tax liabilities. This understanding entirely explains the source of the absolute nominal value price level over time. Also implied is the role of interest rates with regard to the academic definition of inflation and the influence of policy rates on market determined expressions of relative value.

We submit that any effective fiscal and monetary policies undertaken by any Government must, as a matter of sheer respect for logic, do so with a full understanding of the actual source and dynamics of the currency, price level and inflation as set forth above. These descriptions are intended to facilitate a transformation of understanding from merely abstractions and good intentions to actual reality in better achieving and sustaining the highest possible standard of living for generations to come.

Co-Authors



Lee Taituha is of Tainui, Irish and Croatian descent, former Ecological Institute Chief Executive, Economist, Environmental Scientist and former Police Officer. Lee established Kiwi Economics to return sustainable Full Employment to local communities and recall society to times prior to the current era of faulty economic policies that have unintentionally resulted in the collapse of the two-parent Māori whānau (family) structure in Aotearoa New Zealand. Lee's admonition "Work, works!" drives his current work in implementing 'Kiwi Economics', and lead advocate for the recognition of Aotearoa as the Official 8th Continent of the World. Lee states, we're "Better, together- Tātou, tātou e."

"Kiwi Economics should be regarded as a landmark publication in NZ political economy, it is clear, lucid, and honest, and I doubt we have seen the like of it ever before in Aotearoa, not from any Political Leaders of the past."
Dr Bijou Smith. Wellington, New Zealand



Warren Mosler is a world-renowned Economist & Engineer and founder of Modern Monetary Theory MMT. Warren resides in St Croix, in the US Virgin Islands and is described by CNBC as 'one of the brightest minds in finance'. Warren co-founded AVM a broker/dealer firm and Illinois Income Investors providing financial services to large institutions, without one single losing trade in his 15-year tenure. Warren is the author of several books including 'The Seven Deadly Innocent Frauds of Economic Policy' in Spanish, Italian and Polish. He is attributed Mosler's Law that states, "there is no financial crisis so deep that a sufficiently large fiscal adjustment cannot deal with."