Development Intelligence

From Quantity to Value Added

A Monetary Theory Revolution?

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SECTION 1

Since 1975 an alternative school of economic thought has taken shape in the form of the Real Incomes Approach to Economics also referred to as RIO-Real Incomes Objective. This has evolved under the tutelage of the British economist Hector Wetherell McNeill.

During the same period, Robert Mundell, a Canadian economist was developing the Supply Side Economics (SSE) approach. Both McNeill's efforts and those of Mundell were considered to be attempts to address stagflation[1], the simultaneous combination of rising inflation and unemployment in the 1970s. However, there are important differences between RIO and SSE.

SSE provided the policy benefits to higher paid individuals in the form of an upfront lower marginal taxation before any results were apparent in the expectation that this was sufficient to deliver policy objectives of increasing investment in companies and innovation thereby reducing inflation.

This SSE "*benefits before verification*" approach opened up the opportunity for the diversion of gains from lower tax away from the intended investment, raised productivity and lower inflation.

SSE was applied by both the Reagan and Thatcher administrations in the early 1980s where the advanced tax reductions did not result in convincing benefits other than to augmenting corporate executive incomes while contributing to increased income disparity in both countries.

To be fair, the introduction of extremely high interest rates to combat inflation by both governments caused SSE to result in mixed outcomes including repossessions of homes and family farms and a rise in unemployment.

RIO in contrast to SSE, targets real incomes of companies and constituents with the specific intent to stabilise real incomes but including the practical precaution of only providing any policy benefits to companies who made use of the incentives provided to deliver policy objectives of ***added value*** measured in terms of productivity enhancing investment, competitive price setting, lower unit prices and rising real incomes.

For over a century, generations of economists and policy makers have adhered to the belief of the rationality of monetary theory founded on the 2011 Newcomb & Fisher version of the Quantity Theory of Money identity (QTM) to guide monetary policy decisions. The QTM sets out the assumed relationship between money volumes and the average prices of goods and services in a simple 4 variable identity (equation).

McNeill, considering the effectiveness of monetary policy to have been poor, analysed in more depth the theoretical underpinnings and predictions based on the QTM identity compared to

[1] This condition of stagflation was caused largely by the OPEC decision to raise petroleum prices sevenfold within a decade starting in 1973.

policy outcomes. He realised that the QTM is not a decision analysis determinant model and is, therefore, of little utility because something like ten (10) factors that determine the volume of money available to goods and service transactions and their prices are not included in the QTM.

McNeill specified a baseline minimum variable representation of a determinant identity to replace the QTM in the form of a Real Theory of Money[2] (RTM). This identity, in contrast to the simple 4 variable QTM has some 14 variables. Very recently, McNeill extended this identity adding an additional variable concerning productivity creating a new 15 variable Value Theory of Money (VTM).

This more comprehensive identity includes the important money sinks of the asset markets of land, buildings, precious metals, commodity positions, rare objects and art, shares, financial instruments and cryptocurrencies as well as savings and overseas flows, all of which significantly reduce the money left for goods and service transactions.. The productivity factor "Price Performance Ratio" causes the average price of goods and services to rise or fall without altering money volume.

The fundamental difference between the QTM and the VTM is that whereas the QTM provides the foundation of the logic of aggregate demand or money volume parameters being the determinants of economic growth and inflation, while the VTM provides a far more structured and transparent overview increasing the ability of policy analysts to trace the mechanisms whereby money volumes end up influencing the prices of production companies who are in competition.

Companies in competition have no incentive to raise prices to avoid loss of market share. The most compelling reason for companies to raise prices is when they face rises in input prices (costs).

In a recently published 78 page paper, "*Achieving sustained real growth in the British economy*", McNeill presents an analysis of the mechanisms exposed by the RTM, bringing to the surface several important realizations concerning monetary policy decisions which are less apparent from an inspection of the QTM logic:

- Money volumes have no ***direct*** impact on the prices of goods and services of competitive companies.
- Most inflation is caused indirectly by rising input costs in supply side production of goods and provision of services.
- Policy becomes disruptive and loses traction because policy instruments raise costs and impose depression
- Monetary policy can cause business failures and rising unemployment
- Monetary policy encourages phantom investment and lower productivity
- Monetary policy favours asset holders and traders
- Monetary policy creates increasing income disparity
- Monetary policy creates a tendency towards poverty for lower income segments

[2] Originally proposed as the Real Money Theory, this name, for the same identity, has been changed to Real Theory of Money (RTM).

Monetary policy considers the adjustment of money volumes to be the main determinant of inflation based on a presumption of a demand-pull effect. In practice this has almost no impact on the broad-based cost-push inflation causing conventional monetary policy decisions to be unable to eliminate inflation.

From a Quantity to a Value added Theory
Anticipatory pricing

McNeill explains that companies in responding to increases in costs invariably resort to anticipatory pricing which involves raising prices to cover rising costs and to ensure that cash flow is sufficient to purchase the next production period inputs that are experiencing rising prices. This has the effect of raising prices and inflation. This results in a reduction in the traction of the impact of money volume-based policy instruments such as interest rates and taxation. In the end inflation is reduced, but not eliminated, by an imposed depression characterised by ever falling consumption, failing companies and rises in unemployment.

McNeill introduces a concept of a management of money on the basis of a value added concept measured in terms of real incomes as opposed to a quantity of money concept or inflation. As observed, RIO was designed specifically to stabilise or raise real incomes by only providing benefits to companies who make use of the incentives provided to deliver policy objectives. In this way the policy gains traction to eliminate inflation making no use of alterations in money volumes. The policy benefit arises from the value added to all incomes of counterparts in transactions measured as real incomes and resulting from a reduction in inflation achieved through competitive price setting and a sustained investment in productivity enhancing innovation.

The productivity factor which represents the average Price Performance Ratio, a measure of price competitivity, which enables policy makers to measure the contribution of productivity to raising or lowering inflation.

Productivity is influenced by incentive under a Real Incomes policy known as Price Performance Fiscal Policy which levies a variable corporation tax (Price Performance Levy) according to a company's ability to lower inflation below that of the rate of inflation of input prices measured using a performance measure the Price Performance Ratio.

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In a disarmingly simple fashion McNeill's attention to detail has shown the Quantity Theory tenet to be of little utility both in theoretical and policy terms and has replaced it with a down to earth, easy-to-understand more practical way to control inflation.

Is this a Monetary Theory Revolution?

The following questions arise, "*Is this a monetary theory revolution?"* and "*Does this herald the demise of the Quantity approach to monetarism which to this day persists in its reverence to the logic of the Quantity Theory?*"

While covering the gaps in monetary theory, McNeill has been able to balance a practical policy proposition with an adequate theoretical model to replace the Quantity Theory.

The evolution in the theory of money to a value added productivity-based determination of real incomes is summarised in the following section.

SECTION 2

A Very Short History of Theories of Money 1911-2024


Fisher

The Quantity Theory of Money identity (QTM) was devised by Simon Newcomb of Johns Hopkins University and Irving Fisher of Yale University in 2011. Assuming money to be a neutral means of exchange, this shows an assumed relationship between money volumes in the economy and average prices of goods & services as follows:

$$M.V = P.Y \ldots (i)$$


Newcom

Where: M is the volume of money; V is the velocity of money circulation; P is the average price of goods & services; Y is the quantity of goods & services or, real income.


Keynes

John Maynard Keynes, Arthur Pigou and Alfred Marshall, all of Cambridge University, with Dennis Robertson, Ralph Hawtrey and Edwin Cannan, made contributions to the creation of an approach broadly referred to as the "Cash balance approach".


Pigou


Robertson

This did not treat money as a neutral means of exchange but rather something with utility and convenience providing liquidity preference while at the same time reducing the amount of money in circulation. Their quantity theory identity is known as the Cambridge Equation.

An original version is shown below:


Marshall


Hawtrey

$$M = KPY \ldots (ii)$$

Where: M = Supply of Money; P = Price Level; Y = Total Real Income; K = the part of real income which people want to keep with them in the form of cash.

The Cambridge Equation remained more of a discussion point with the nature of K remaining undefined because in reality it would have varied in value.


McNeill

Hector Wetherell McNeill changed the format of the Cambridge Equation to make more apparent that savings reduce the amount of money in circulation as follows:

$$(M - s).V = P.Y... \text{ (iii)}$$

Where: s is savings.

According to McNeill quantitative easing (QE), the combination of a very low close-to-zero base rates and a high influx of money created a QTM paradox. He reasoned that this was because from the analysis of Irving's QTM, QE should have caused the prices of goods & services to rise rapidly. However, at first this did not happen but real incomes, or purchasing power of wage-earners began to fall (Y) but this was not related to savings because of the very low interest rates.

Neither the QTM or the Cambridge Equation could explain this phenomenon.

They could neither quantify the actual amount of money in goods and service transactions or predict price movements.

McNeill reasoned that as a result the QTM and the Cambridge Equation identities were inadequate as guides to monetary policy decisions related to inflation because of missing determinants (variables).

He therefore elaborated a Real Theory of Money (RTM) to replace the QTM and the Cambridge Equation which includes all of the main money sinks made up of separate encapsulated asset markets, savings and overseas monetary flows.

The baseline RTM is as follows:

$$(M - (l + r + p + m + a + h + f+ c + o + s)).V = P.Y \text{ ... (iv) Where:}$$

l is land;
r is real estate houses & buildings;
p is precious metals;
m is commodities;
a is rare & art objects;
h is shares;
f is financial instruments;
c is crypto currencies;
o is overseas money flows
s is savings.

The only money sinks that did not exist when Fisher, Keynes, Pigou & Marshall worked on their identities were some forms of derivatives and cryptocurrencies.

The question therefore arises, why were these other money flows never included in assessment of the impact of money volumes on the prices of goods & services? After all, governments, Bank of England functionaries, and university economics research and teaching staff, to this day, still assert that the Quantity Theory of Money is the essential tenet or explanation for monetary theory and & monetary policy decisions.

As long as monetary policy decisions have been taken for well over a century they have been justified in terms of the logic of an out of date Quantity Theory of Money or perhaps the incomplete Cambridge Equation.

The question of productivity

The Real Incomes Approach to Economics policy proposition of ***Price Performance Fiscal Policy*** was first presented in 1976. This used a measure of "price performance" or productivity to measure the contribution of each economic unit to inflation. This Price Performance Ratio (PPR) is the percentage change in output unit prices in response to changes in aggregate unit input costs

The PPR has useful associations with three specific ranges in value, A PPR greater than unity (PPR > 1.00) signifies that a company is augmenting inflation above the input inflation rate.
A PPR value of unity (PPR = 1.00) maintains the rate of inflation at the input rate. A PPR of less than unity (PPR < 1.00) signifies that a company is succeeding in reducing inflation to below the input rate.

How the Real Incomes Approach policy of Price Performance Fiscal Policy drives productivity and eliminates inflation

In the publication McNeill, H. W., "*Achieving sustained real growth in the British economy*.", Real Incomes Approach to Economics, HPC, 2024 McNeill explains how the PPR is used to estimate the corporate tax of an economic unit applying a sliding scale linked to the value of the PPR.
Companies receive discounts to the degree their PPR falls below unity (1.00 < PPR) thereby reducing the rate of inflation in most sectors and often eliminating inflation or creating instances of deflation in digital technology sectors.
Companies who have PPR greater than unity and therefore raising inflation and reducing consumer purchasing power, pay surcharges which rise the higher the PPR value above unity (1.00 > PPR)
The corporate tax or levy is referred to as the Price Performance Levy (PPL) and more details can be found in the document referred to.
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From a Real to a Value Theory of Money

During the first weeks of February 2024 McNeill updated the Real Theory of Money by adding a variable to weight the price (P) as "w" representing the PPR.

This creates a ***Value Theory of Money*** identity as follows.

$$(M - (l + r + p + m + a + h + f + c + o + s)).V = (w. P).Y \ldots (v)$$

Where: w is the average Price Performance Ratio.

Therefore, following calculation convention of estimating the content of inner brackets (parentheses) first, the w weighting on P change the average P according to the average PPR. Therefore, if the average PPR or w is less than unity inflation will fall and will rise is the average w is above unity.

The change in the theory of money identity is not just one of name and number of variables but there are significant practical policy implications.

The main policy implications are set out in the recent paper entitled, "*Achieving sustained real growth in the British economy*.", in which McNeill refers to the need for counter-inflation policy needing to follow the VTM structure to become "value added" in terms of stabilizing and raising real incomes by effectively lowering prices through changes in productivity as opposed to the "quantitative" approach following the long-applied money volume and aggregate demand paradigms.

In "*Achieving sustained real growth in the British economy*." McNeill spells out an alternative value-added basis for inflation control that can eliminate inflation and stabilise or raise real incomes which is crystalized in a policy proposition, *Price Performance Fiscal Policy* which represents a unique alternative to the Quantity Theory orientation of inflation control embedded in Keynesianism, Monetarism, Supply Side Economics, Modern Monetary Theory and fiscal policy decisions on taxation and levies related to demand control.

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