SEEL-Systems Engineering Economics Lab

George Boole Foundation

Applied Research & Development
SEEL-Telesis Programme[1]

Telesis: "An ancient Greek work signifying the steady progress towards an objective through careful planning and the intelligent use of resources."

RIO3P-Real Incomes Objective Price Performance Policy

Forthcoming Briefs

January, 2026

This Paper

RIO3P is currently the most comprehensive macroeconomic policy option in existence. Through unique policy instruments it incentivises enhanced proactive mutually beneficial individually adaptive responses by each of the principal agents in the economy in the form of the state (government), economic units (companies) and society (individual constituents).

Such a policy involves a series of interrelated considerations of the policy's potential impacts on each class of agent across the economy requiring briefs to clarify the mechanisms involved.

This paper lists forthcoming titles of briefs to be released during the course of 2026.

Each brief title is numbered and accompanied by a short description of the brief content outlining the mechanisms involved and the beneficial outcomes for agents, efficiency, wellbeing and economic growth.

Origins

RIO3P is based on the theoretical growth laws of Nicholas Kaldor[2] and the extensions, applied development and policy design of the British economist and systems engineer, Hector Wetherell McNeill, initiated in 1975 and continued to date (2026).

Other Resources

For a better understanding this paper see three documents available at the Boolean Online Library.

RIO3P - Executive Summary: https://www.boolean.org.uk/library/STES01.pdf

RIO3P - Main Summary Text: https://www.boolrn.org.uk/library/STMT.pdf

RIO3P- Reducing or Eliminating Inflation is Fundamental to the Recovery of the British Economy: https://www.boolean.org.uk/library/STKG01.pdf

[1] The SEEL-Telesis AR&D Programme was established in 1983 to concentrate on the development of Decision Analysis and to track and monitor developments in global network applications to identify and design policy administrative management systems in support of Real Incomes Objective Price Performance Policy (RIO3P) distinct counter-inflationary macroeconomic paradigm for the economic development of the British economy.

[2] Nicholas Kaldor, "Causes of the slow rate of economic growth of the UK",1966, Archive Centre, King's College, Cambridge.

Why is RIO3P Different?

Post-1973 Britain underwent a significant deindustrialization, an expansion in a dominant low wage low productivity services sector and in 2025 now has the second most negative balance of payments for goods on the planet.

RIO3P is a general macroeconomic policy designed to address the specific structural problems facing the Britain and in particular its IDIS-Import Dependent Inflationary Services economy, characterised by deficient investment, low productivity, declining real incomes, rising income disparity and poverty.

While being a general economic development policy, RIO3P is fully adapted to stimulate the recovery of the industrial and manufacturing sectors as well as agriculture, fisheries and the services sectors, largely based on the provisions of incentives for rises in productivity.

Unlike K3M[3] policies, RIO3P's proactive "transactional correspondence" nature causes it to achieve beneficial impacts on all of the principal economic agents, these being, individual constituents, economic units (companies) and government. As such, RIO3P is an extension of constitutional economics where economic policies are required to support the interests of the state, society, economic units and individuals and where the shaping of public goods in the form of moral laws and regulations for the conduct and management of economic policies are based on a participatory development and public choice.

Constitutional Economics Credentials

In defining the "interests" of all economic agents as "stable or rising real incomes", RIO3P applies this as the Critical Performance Indicator. This imperative imposes strict parameters on policy decision options to prevent any depreciation in the value of the pound. This has the effect of generalising the benefit of the policy across all agents by maintaining of raising the purchasing power or value of cash flows, profits, wages, shareholder value, savings, the fiscal base and government revenues.

There are many different aspects to this paradigm involving significant departures from the somewhat limited perspectives and operational capabilities of K3M policies.

The relationship of RIO3P to the "Third Way" concept

RIO3P anticipated what became known as the "Third way" to political economy by about 20 years. The Third Way was an attempt to combine aspects of economic efficiency with selected functions of the state. In colloquial terms there was an attempt to steer a course between the extreme "left" with more government oversight and control social welfare and interventions and the extreme "right" with unregulated market freedom. In short, there was an attempt to combine market "efficiencies" with "social democratic" governance.

This form of political economy was promoted by President Bill Clinton in the USA and Prime Minister Tony Blair and Chancellor Gordon Brown in the UK. In the United Kingdom this did not work because of the IDIS economy and inability to control inflation as well as mistakes made in the application of Private Finance Initiatives instead of using government finance to support the National Health Service which even today is paying high premiums for debt 28

[3] **K3M** – **K**eynesian, **M**onetarist, **M**undell-Laffer supply side economics & **M**odern Monetary Theory.

years after their introduction. The reality is that without changes in the mode of inflation control Third way notions cannot operate effectively as illustrated by the instabilities and financial crises associated with the baseline K3M macroeconomic policies.

The reality is that RIO3P is unique in allowing policy-makers to fine tune the degree of efficiency in markets through an effective counter-inflationary mechanism while avoiding austerity and the relieving government services of excessive social welfare burdens by proactively enhancing the real incomes of the whole population making the notion of the "tide lifting all boats.." a reality.

Reference to the "Third Way" is covered in the last brief listed.

The list of forthcoming titles and a short description of contents is provided below. Each is numbered and mixed in with qualifying text in blue.

Active Agents

RIO3P is designed to facilitate the ease with which the active agents in an economy can achieve their objectives by providing the appropriate policy instruments at their disposal to enable them to adjust the impact of policy on their operations to maximise benefits while also aligning the outcome with the RIO3P policy objectives.

The principle agents served by RIO3P are therefore:

- Constituents & Human Provisions
- Economic Unit (Companies) Provisions
- State (Government) Provisions

Constituents & Human Provisions

Active agents include individual constituents and groups of constituents organised as companies involved in industry, manufacturing, agriculture and services and government and state. Active agents have specific objectives. However, in the case of constituents, there exist unavoidable specific basic physiological human needs for survival referred to as basic essentials for life. These include food, water, housing, sanitation, energy, health provisions as well as means of transport. In terms of provisions of the operation of the economy a fundamental objective is to ensure that basic essentials have accessible prices for the lowest income segments.

1. Basic Essentials Accessibility

This brief details the potential operation of RIO3P within the food, agriculture & forestry, the water, energy, construction, sanitation sectors as well as health and transport.

It also introduces the dualistic option to the Price Performance Ratio[4] (PPR) as Costs Performance Ratio (CPR) as the application of the RIO3P "transactional correspondence" on

[4] See RIO3P- Reducing or Eliminating Inflation is Fundamental to the Recovery of the British Economy: https://www.boolean.org.uk/library/STKG01.pdf

the NHS (health services) or any other public service. This is discussed with more extensive examples in the brief "Options Benefit Analyses" in the Economic Unit Provisions Section.

2. Income Disparity & Poverty

This brief examines how RIO3P's productivity-driven price reductions and rising purchasing power disproportionately benefit lower-income groups, reducing poverty traps and asset-based inequality without relying on redistribution or wage-push mechanisms.

The brief "Basic Essentials Accessibility" addresses the ways to make basic essentials more accessible to lower income groups as a first step in raising the purchasing power of lower income segments.

This brief explains the general impact of RIO3P on default disposable incomes in the form of a rising purchasing power and rising wellbeing. This is extended into the impact of RIO3P on assets a basic factor in increasing income disparity.

3. The General Impact of RIO3P on Constituent Real Incomes

RIO3P shifts real income growth from employment/wage bargaining dynamics to generalised productivity gains, making purchasing power rise across the population via lower unit prices and a more valuable pound.

K3M policies have a range of complex or naive explanations of the relationship of real incomes and wages to bargaining power, inflation and unemployment levels. RIO3P renders much of this analysis redundant by making real incomes a function of productivity and lower unit output prices. Real incomes impacts are not "employment specific" but are generalised across the whole population by raising the purchasing power of the "money in your pocket" or pounds possessed or received as payment.

4. Quantitative Examples of Constituent Agent Calculations

This brief will provide worked quantitative examples of the impact of RIO3P on the constituent agent themes described in the previous 3 briefs.

Examples will illustrate the self-perpetuating or sustainable character of RIO3P in supporting the desirable transition in improving the accessibility of basic essentials for low income segments, how the system eliminates poverty and reduced income disparity and the nature of income distribution achieved through the policy.

Economic Unit Provisions

Companies are production systems made up of technologies and groups of people collaborating to design products and processes for goods and services are potential essential generators of wellbeing as a result of their productivity giving rise to more efficient production and competitive pricing. Where it is possible to reduce output prices this has the effect of stabilizing the purchasing power of the pound, raising disposable real incomes without having to raise nominal incomes/wages. Whereas RIO3P has the stated aim of stabilising or raising real incomes the impact on the purchasing power of the pound raises the purchasing power of cash flows, wages, bonuses, savings, cash, shareholder values, fiscal bases and government revenues.

However, it is important to understand that this valuation of money value and purchasing power for those within the internal market, is a function of the ability of the business sector to reduce output prices.

The conventional monetary policy perspective on money value tied to the exchange rate in fact has the reverse impact because this state is achieved, under current UK economy conditions only by raising interest rates to attract capital to the UK as opposed to higher productivity.

5. Business Rules

Because of the different nature of price-setting decisions on identifying an optimised price, RIO3P has its own Business Rules. These provide guidance of circumstantial decisions that are based on the trades-offs between lower margins, levy rebates, higher sales volumes against income-price elasticities of demand and market penetration and sales growth. Business Rules are guidelines but under RIO3P each company would have free access to an online AI-supported decision analysis application to support decision analysis.

The AI-supported decision analysis system is further explored in the brief entitled, "Operations Management System"

6. Operations Management System

RIO3P provides all companies with an Operations Management System (OMS) which serves various functions all based on an online modular system. The system records all transactions as well as operational details to track procurement of inputs and sales of outputs as well as monitoring and recording the performance of the tacit knowledge accumulated where this is related to operational performance as well as data records of explicit knowledge on all forms of performance.

This enables the build-up of valuable information of historic performance as well as critical information on the evolution of productivity in terms of personnel tacit knowledge based on the explicit data collected.

The combination of data sets is managed using immutable Accumulogs[5] and Locational-State Theory[6] (LST) whose functions are described in this brief.

7. PES - Productivity Extension System

In addition to the OMS corporate system there is a central repository of national data stratified by technologies and sizes of plant which will maintain anonymised records of the ranges of realised performance achieved within each type of process. The achieved level of productivity will be categorised as standards of practice such as low, average and best practice for state-of-the-art technologies.

This information in constantly updated form is transmitted to the OMS automatically bringing up to date alerts and baseline data used by the AI-decision analysis systems to determine feasible beneficial optimised prices.

[5] Accumulogs were first proposed by Hector McNeill in 1985.

[6] LST was invented by Hector McNeill in 1985 to support the operation of Accumulogs in learning systems.

This survey and proactive feeding of updated data services would be a function of a national Productivity Extension System.

8. Capital Embedded and Non-Capital Embedded Productivity

This brief distinguishes between productivity gains from capital investments (e.g., automation, redesign) and those from operational/logistical improvements using unchanged assets, highlighting decision-analysis tools to optimise both routes under RIO3P incentives.

In addition to the development of tacit knowledge through the learning curve based on the repetition of basic tasks, there are two basic origins of productivity arising from:

- Capital-embedded productivity
- Non-Capital-embedded productivity

Capital-Embedded Productivity

Changes in the technical structure of systems resulting from redesign and changes in scales of operation as well as selective automation can be used to change levels of productivity.

Non-Capital Embedded Productivity

Increased productivity quite often arises from decisions that alter how unchanged systems operate in resources allocation terms or logistics. Non-embedded productivity is a common approach using operations research algorithms to support decision making in resources allocations and logistics without altering basic equipment or technologies.

The discipline of "decision analysis" is an important decision-support approach that can help review the options available in improving productivity by either the embedded or non-embedded routes.

9. Options Benefit Analyses

Options Benefit Analyses[7] (OBAs) are an extension of the logic of RIO3P's Price Performance Ratio (PPR) to other desirable objectives such as the reduction in emissions, public service costs, raising ecosystem carrying capacity and improving environmental conditions in the face of climate change.

This has the effect of making required adjustments for environmental conditions and climate change factors in association with normal productivity enhancement resulting in less resources being consumed with technological progress specifically designed for climate change or NetZero because all of these OBAs run in parallel to the PPR resulting in the cost-benefit already including these specific benefits.

Each of these OBAs, depending on their importance are discussed in separate briefs.

10. OBA – Emissions Performance Ratio

The Emissions Performance Ratio (EPR) is a parallel performance estimate to the PPR which associates the price performance of a company with a rate of operational emissions. This

[7] OBAs were developed by Hector McNeill for the Sustainable Development Goals (SDG) http://www.SDGToolkit.com to extend cost-benefit analysis to real incomes benefit analysis, economic rates of return to rates of return to the environment and carrying capacity.

provides a basis for reducing greenhouse gas emissions based on the same principle as Price Performance Ratio and RIO3P of advancing productivity towards a state of progressive attainments of more from less. In other words, this association would see more physical output from less resource inputs and lower emissions. As a result, the provisions for Net-Zero are not an additional overhead cost but rather part of the process of raising productivity to enhance real incomes.

11. The Case of Service Companies

Unlike goods-producing firms, service companies often face input cost rises while possessing limited productivity levers; this brief shows how RIO3P's incentives enable many to lower prices proactively, enhancing competitiveness and real incomes in the dominant services sector of the UK economy.

K3M policies have no provisions to incentivise productivity increases and apply ineffective policy instruments such as interest rates and taxation to lower inflation generating, in both cases, austerity.

Service companies are seldom involved in product and process design with many resales and delivery, distribution and logistics services essentially moving packages or boxes. They are therefore reduced to applying anticipatory pricing or simply raising their prices to maintain their profits when their input costs rise.

RIO3P provides a large proportion of services companies with the opportunity to respond to input cost rises by actually lowering their prices by taking advantage of the RIO3P incentive provisions.

12.PLCs, SME, Mutuals & Cooperatives

This brief explains the potential impact of RIO3P on different types of corporate organization structures. Broadly, PLCs under conventional tax regimes would not be able to compete with smaller companies operating under RIO3P.

RIO3P takes into account the basic economic structure of the UK based on SMEs.

Corporate social share-holding structures introduce interesting dynamics with mutual and commercial cooperatives having up to a 11% operational costs advantage over PLCs because of there being no need to support external shareholders.

13. Supply Chain Effects

This brief analyses the real income multiplier effects introduced by supply chains under RIO3P.

These relate to the impact of sequential companies in a supply chain maintaining low PPRs having an enhanced cumulative or compounding impact of inflation or price reductions which occur in a progressive fashion as goods move down a supply chain.

This analysis is relevant to supply chains linked to external trade and the impact of larger or reduced proportions of supply chains being within the RIO3P envelope (within nation) or outside it (abroad).

14. Quantitative Examples of Corporate Agent Calculations

This brief will provide worked quantitative examples of the impact of RIO3P on the economic unit agent themes described in the previous 9 briefs.

Examples will illustrate the self-perpetuating or sustainable character of RIO3P in supporting cash flow growth and the generation of own investment equity and demonstrate the feasibility of avoiding debt. Parallel calculations of OBAs will be demonstrated and the contribution of PES data to price setting logic as well as designing modified costs projections. The comparison of conventional taxation regimes with RIO3P will be provided comparing Plcs, SMEs, mutual and commercial cooperatives.

State Provisions

Governments oversee and manage macroeconomic policies, manage government income and expenditure related to a central Budget as the funding source of public services.

15. OBA – Costs Performance Ratio

Another Options Benefit Analysis (OBA) which can be introduced as part of the RIO3P repertoire is another version of the PPR dual that makes cost minimization the objective criterion. Thus a Unit Costs Performance Ratio (CPR) can be applied in public services as an incentive for management and public service teams to focus not only on innovation and rises in productivity to enhance service quality but to also applied the CPR metric to minimise operational costs.

RIO3P facilitates this to a large degree by also encouraging private sector providers of services and goods to lower unit prices.

The important contribution of RIO3P is to enable Public Service Costs to support a Budgetary Balance

16. Levy Agency Administration

This brief describes the mirror OMS for the Levy Agency, handling automated levy/rebate calculations, treasury functions, and outlier alerts to ensure smooth, transparent administrative management of RIO3P incentives.

In addition to the corporate Operations Management System (OMS) which is company-facing, SEEL have produced a mirror OMS that is Levy Agency-facing. This simply manages the treasury functions of crediting or debiting the corporate balance account according to the levies applied with or without rebates or surcharges. These values are calculated automatically and also the OMS alerts the Levy Agency of outlier automated PPR estimate anomalies.

17. Policy Decision Analysis & Administration

Facing a Cost of Living structure, the Levy Agency reports to policy makers can alert them to the relative success of RIO3P in terms of general price level trends and growth measured in terms of real incomes or value of the pound.

The monitoring of basic essential prices becomes easier as well as the measurement of the rise in real incomes of lower income segments as well as changes in employment from lower to higher income jobs.

Policy makers can alter the intensity of incentives by altering the Price Performance Levy algorithms to increase or decrease the intensity of the impact of the Price Performance Ratio on Price Performance Levy rates.

18. Revenue, Deficits and National Debt

RIO3P's main impact of direct interest to the State or governance is its impact on the purchasing power of the Fiscal Base and Government Revenue which has a direct impact on whether or not there will deficits because of the size of the proposed Budgetary provisions.

Budgetary provisions i.e. public expenditure should benefit from falling service and goods prices supplied by the private sector.

There is the critical relationship between rising revenue purchasing power, falling prices of bought-in private services and goods and therefore the need for borrowing and debt.

Therefore, policy makers can use Levy Agency OMS data to determine how to structure this expansion on purchasing power to begin to avoid deficits and additional national debt as well as to reduce national debt

19. The Fiscal Base & Productivity

RIO3P augments the real purchasing power of the fiscal base (private revenues) through productivity-led price stability, allowing government revenue to rise in value while potentially reducing tax rates as a percentage of expanded real incomes. Currently the public feel financially constrained by a tax base consisting of cash flows of companies and individuals facing over 40% being removed as government revenue.

Because of the augmentation of purchasing power effect of RIO3P on cashflow and the general lowering of prices it is evident that RIO3P can contribute to the fact that the Fiscal Base can rise in value along with real incomes and currency value resulting in the percentage tax take falling while securing the necessary purchasing power to meet Budgetary provisions.

20. Tax Rates, Government Revenue and the Fiscal Base

Building on the prior brief, this one presents modelled scenarios and calculations showing how RIO3P can engineer a predictable downward path for tax rates while maintaining or increasing government's real purchasing power for essential provisions.

This brief will present a series of quantitative calculations demonstrating the benefits of RIO3P in being able to design operations that can establish a downward and predictable trajectory in tax rates.

21. Levy Agency & Innovation

This brief will review the overall impact of RIO3P on the general role and image of tax authorities e.g. HMRC operating under the RIO3P Levy Agency title by transforming this role into that of an innovation champion and supported of the advance and dissemination of knowledge, alongside PES, to advance the levels of innovation and enhanced productivity and growth in a positive fashion.

22. The Role of the Treasury

This brief will review the alterations in the role of the Treasury under a RIO3P regime. The OMS system will generate a lot of more up to date statistics and real time information on productivity by sector as well as levy revenue balances enabling the Treasury to introduce low risk instant adjustments to the response of key sectors in terms of handling price performance through instructions to the Levy Agency.

23. Monetary Management Options

Under RIO3P the Monetary Policy logic options are reduced to a less risky solution.

This brief compares the taxation-public expenditure-borrowing quandary which usually leads to austerity, the terminal default option or the buyer of last resort and Quantitative Easing "solutions" to stabilizing money volume and applying RIO3P productivity options that avoid austerity.

24. Quantitative Examples of Government Agent Calculations

This brief will provide additional worked quantitative examples of the impact of RIO3P on the government agent themes described in the previous 9 briefs.

Examples will illustrate the sensitivity of constituent and corporate agent responses to overall policy management as well as the utility of data feedback from constituent and corporate agent interests in managing overall policy effectiveness.

This brief will illustrate how the fiscal base and revenues can be managed to dimension Budgetary provisions, reduce or eliminate deficits and reduce national debt.

Of particular importance will be the demonstration of how the government agent can encourage cross as well as specific sector productivity and currency value responses to changing external conditions related to balance of payments, terms of trade and instabilities in any particular supply chains.

25. The Realization of a "Third Way" Operation

Although the development of a Third Way was the objective of governments in the 1990s, RIO3P having been conceived some 20 years before already possessed the elements to make the Third Way a sustainable reality.

This brief describes the specific factors which policy-makers can use to make efficiency in the private and public sectors high and optimised by reducing or eliminating inflation, delivering lower prices services and goods to consumers, businesses and public services. In addition, the provision of incentives, not only in the private sector to maximise profits while reducing output prices but by also setting costs minimization as the performance indicator in public services.

Constituents across all sectors benefit from the growth in the purchasing power of the pound raising their real incomes outside the wage-bargaining procedure where they exist, and reducing the incidence of necessary tax levels on rising incomes to satisfy Budgetary provisions. Welfare provisions can be reduced as a result of individuals being able to afford more of their necessary consumption including basic essentials. With an aging population the

impact of RIO3P on real incomes is an important contribution to “affordability” of welfare provisions.

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