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THE QUEEN ASKED: STATE OF MAINSTREAM ECONOMICS

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Abstract

The neoclassical economics owes its development to Alfred Marshall and Leon Walras in the late 19th century. Marshall is also attributed with the partial equilibrium theory. Walras is known for his general equilibrium theory. Both Marshall and Walras are also attributed with the introduction of mathematics in their explanations of economic phenomenon. Since their time mathematical economics has reached new heights. Marshall, a British economist relied on the Ceteris paribus assumption principle. Walras, a French mathematician used laissez-faire as his assumption principle. Neoclassical economics saw major changes post the Great Depression. The 1929 Great Depression changed the economic views of John Maynard Keynes who was the ardent fan and star pupil of Marshall. Over time, the rational behaviour of agents and value proposition helped change the various proposed models in mainstream economics. The 2008 global financial crisis jolted the sensibilities of the entire world. Since the last decade trillions of dollars have been pumped into the global financial systems to ensure that the mega-financial institutions do not fail. Several Nobel Laureates in Economics including other prominent economists have questioned the mainstream academia's ethical position and their inability to predict the 2008 financial crisis. Her Majesty the Queen of England called the crisis 'Awful'. Her Majesty is known for her remarkable ability to clad public display of emotions. This paper aims to examine the failings of the mainstream economics in light of the existing scholarly literature on the topic. The authors believe that the mainstream economic is in dire need of overhaul.

Keywords: *Neoclassical Economics, Alfred Marshall, Leon Walras, Mainstream Economics*

1. INTRODUCTION

It is now over a decade since the 2008 global financial crisis. There is no settled figure to truly depict the total monetary value of global financial losses due to the 2008 financial crisis. The International Monetary Fund (IMF), Standard & Poor and the Bank of International Settlement (BIS) etc. have offered their economics based explanations for the US\$15 trillion or whatever figure it really is, losses.

The Queen of England lost estimated GBP 25 million of her invested assets during the crisis. She posed a simple question during her visit to London School of Economics (LSE) for an inauguration ceremony. Professor Luis Garicano at LSE was asked by her Majesty the Queen to explain, 'why did nobody notice it? (Pierce, 2008)'. The Queen's question reflects the most common sense inquiry about the uncomfortable truth surrounding the competence of modern economics.

The Queen is famous for her most restrained public expression of emotions. She crossed that psychological rubicon and termed the crisis 'awful'. The superlative use of 'bad' by the Queen reflects her highest degree of repulsion directed at everything surrounding the crisis. This is also perhaps the Queen's rebuke at the incompetence of the economists as professionals. The irony of Her Majesty's disgust at the economists was lost on Professor Garicano. His nonchalant reaction to Her Majesty's extreme display of disappointment only adds to his failure as the Director of Research at LSE. Her Majesty's most appropriate comments came while inaugurating the GBP 71 million new building at the LSE that day. Apart from an added stone-cold building to LSE's research wing, nothing of significance was added to the field of economics.

Dissonance of explanations that came forth from the top 30-economic institutions in the Western World. Those institutions include LSE, Oxford, Cambridge, Harvard, Stanford, Yale etc. The value offered by their post-crisis explanations is always useful for warming hands on a cold winter night. The fact is that none of these ivory towers of main-stream economic knowledge saw the 2008 financial crisis coming. If anyone did see it coming, no one amongst these babel towers of economics said anything useful about it.

Those entrusted to legislate for the protection of public investments in the money markets failed the public trust. Those entrusted to create economic knowledge failed the public trust. The state of western economics suggests that there are neither any logical economic laws nor any logical economic research. One can spin this statement many times over to produce 'n' number of versions. The truth remains that contemporary western economics is detached from reality. It neither proposes to address the socio-economic problems nor does it provide any guidance for the political economy. Main stream western economics is being held hostage due to its incessant reliance on obfuscating mathematics and inexplicable modelling that is simply out of touch with reality.

This paper aims to review some of the scholarly criticism levelled against main stream economics. The context of this criticism is neoclassic economics. The context also looks at the pioneering work of Alfred Marshall and Leon Walras in the late 19th century. Both Marshall and Walras also introduced mathematics for their logical inquiry of economics. Marshall and Walras argued that the neat symbolic language of mathematics would be used to explain the messy socio-economic and socio-political theories underpinning economics. Inference to these assertions can be found in the infamous letter from Alfred Marshall to Arthur Lyon Bowley (Dimand, 2007). The letter suggested that mathematics could be used in economics without complicating the text. Marshall however suggested that mathematics in economics should not make the text difficult to understand. Alfred Marshall's economic theory of partial equilibrium used partial differential equations.

Inference about the use of mathematics can also be drawn from Henri Poincare letter to Leon Walras written in September 1901 (Walras, 1954). Walras had a life-long passion for including mathematics in economics. Walras proposed the general theory of equilibrium. Poincare was sceptical of the use of simultaneous equations by Walras in his proposed economic theories. The context will be used to form the basis for our discussion focused on the present state of economics. The present state of western economics is a branch of knowledge that lacks any attempts to align itself with the reality. The western economics has failed to provide any assistance in preventing the catastrophic global financial disasters repetitively. It simply refuses to acknowledge its failure as a branch of knowledge. Such a state merits common sense analysis based on logic. This paper will use logical interpretation as its analytical tool.

2. REALITY OF MAINSTREAM ECONOMIC RESEARCH

In its 2018 report (Johnson, Watkinson & Mabe, 2018), Scientific, Technical and Medical Publication Association (STM) states that,

'There were about 33,100 active scholarly peer-reviewed English-language journals in mid-2018 (plus a further 9,400 non-English-language journals), collectively publishing over 3 million articles a year'

STM is the leading global trade association for academic and professional publishing. These are staggering numbers of research papers coming out of the academia and other allied research institutions. The 2015 OECD data reports approximately 7.1 million full-time researchers actively engaged in publications. There are no reconciled statistics available to pin-point researchers engaged in the field of economics. Conley & Onder (2014) published an insightful research on the PhD scholars from the top-30 economics departments* in western world. The study took single-sample approach for the combine PhD in

* <https://ideas.repec.org/top/top.econdept.html>

economics graduates between 1986 to 2000. They argue successfully that the top-tier institutions like Harvard, Yale, Stanford, MIT etc. fail to produce economic researchers capable of credible number of publications. 60% of these PhD (economics) students fail to meet the 0.1 AER-equivalent paper standard from these top-30 departments. The 0.1 AER-equivalent paper standard equates to approximately one paper published in a *second-tier* field journal over a period of six years.

This provides a context for our discussion. The global academic R&D industry is valued at approximately US\$2.3 trillion in 2019 (R&D Resources, 2019). The same report suggests that academic and applied research in the field of medicine leads the way. This context shows that some disturbing trends in the field of economics. The contemporary trends of academia in the field of economics suggest that teaching and learning of economics needs drastic changes. The main stream schools of economics are led by scholars whose eminence is in part owed to the ivory towers in which they reside. The credence is given by the volume of research grants and their ability to accept or discard any emerging work in economics. The credibility factor is purely incestuous and based on complementary accolades by each of these institutions within their tight-knit club. Anything published outside of the approved journals and without proper reference to the work of these so-called leading experts' research is found deficient in rigour. This is the state of first-tier scholarly endeavours in economics. The second and third-tier does not really merit any mentioning by the first-tier.

The ideas of neoclassical and heterodox economics formed during the past two hundred years do not hold water in the contemporary world. The CORE project launched in the UK is an example. CORE** is a combined initiative of select universities that claim to provide 'accessible, relevant, real-world economics teachings' to their students. None of the top-30 western academic economic institutions are part of the project. The academic debates on various 'schools' of economics is again subjective. The classification, theory and consequent research is driven by the top-30 Ivy League schools in the US and the Russell Group in the UK. The Ivy League in the US and the Russell Group in the UK control the major share of government funding, endowments, research grants and post-qualification job markets.

3. MARSHALL & WALRAS: RELEVANCE QUESTION

The relevance-question in economics is an old one. The relevance of economics to civilizations and human history is an established fact. The controversy surrounds the role of modern economics in global prosperity or the opposing view of detrimental marginalization of majority global population

** <https://www.core-econ.org/about/>

mainly due to western capitalist economics. In the midst of all this is the academic literature of economics. There is the matter of labelling various economics views. Those views are then further 'boxed' into the two broad topical categories of macro and micro economics. The further classification according to the time-period is classical, neoclassical and more contemporary heterodox economics. The ideological representations in economics are specific to institutions. These institutions house the intellectuals representing the main-stream economic views. Institutions such as Chicago University, MIT, Harvard etc. are at the forefront as their scholars control the main-stream views. Scholars from these institutions are also amongst the main recipients of prestigious awards such as Nobel Prize etc. Any aspiring economists for these prestigious prizes must conform to the views of main-stream schools.

Alfred Marshall's 1890 classic work titled *Principles of Economics* hinges on the Latin *Ceteris Paribus* or 'other things equal' assumption. Marshall is not the first scholar in any branch of social science to explain his economic ideas relying on *Ceteris Paribus*. Economists often prefer examining economic phenomenon by isolating factors that affect the phenomenon. Marshall explained his theory of partial equilibrium by stating that longer the time period of analysis; it becomes harder to assume that other factors remain constant. He examined the supply-demand cycle of the markets through his theory. Marshall justified his partial equilibrium theory by accepting that factors affecting the supply-demand cycles are numerous. However, he considered it a sensible approach to consider other factors to be inactive using the assumption of *ceteris paribus*.

Marshall explained demand function of commodities based on the assumption that prices of other commodities including consumer behaviour remain constant. On the supply side Marshall assumes that prices of other commodities and production factors including resources for production remain constant. Marshall explains this as pricing under perfect competition. Marshall used partial-differential equations to explain his theory but cautioned against using mathematics to explain the economic phenomenon of partial equilibrium. This formed the context of his famous letter to Bowley.

Marshall's partial equilibrium analysis determines single commodity pricing through the intersection of demand-supply curve. Prices of production and other commodities are assumed as the data within the demand-supply system of a single commodity under analysis. The data helps in output-pricing equilibrium for the single commodity. The price determination of the single commodity remains *independent* of all other goods based on the assumption of *ceteris paribus*, until there is a change in the system data. Any such changes in the system data create new demand-supply curves with new price for the single commodity. The limitation of Marshall's partial equilibrium theory concerns the independent data which determines the single-commodity price. In the real-world such an analysis cannot correctly analyse the commodity prices as the prices of various goods are interdependent and inter-related requiring simultaneous determination.

The other criticism of partial equilibrium theory concerns its isolated views of economic sectors that are immune to other sector's performance. Marshall considers sector-based analysis with the assumption that price changes in one commodity within the sector to be independent of any demand within the sector for other commodities. While the reliance on the assumption of *ceteris paribus* is not literal, it is indeed strict. Partial equilibrium also assumes the changes in one sector of the economy will not affect the over-all economy. Such an assumption is violated in real economies all the time. Any significant change in one sector does cause significant changes in other sectors. Marshall assumed that the changes in the sector under analysis induce small and easily diffusible changes in the overall economy thus can be safely ignored. These criticism have resulted in further modification of Marshall's work.

The general equilibrium economic analysis by Leon Walras shy's away from Marshall's independent price determination of commodities. Walras explains general equilibrium of commodity pricing through the simultaneous determination of prices of all goods and factors affecting the pricing. Walras took the view that change in the price of any commodity affects the quantity demand of that particular commodity and such changes are not independent of the prices of other commodities or their change in prices.

Walras argued that partial equilibrium does not correctly analyse the change in price of commodities within a sector where commodity prices are inter-dependent on variable factors. Walras argued that general equilibrium analysis answers the inter-dependence and their inter-relationships for any equilibrium adjustments with each other. Such an equilibrium emerges when the demand and prices of each product within the sector along with their factors affecting equal the supply.

Walras explained this general equilibrium and simultaneous pricing inter-dependencies through the simultaneous equations. Walras argued that the demand can be described by an equation which states the good's quantity demand. The quantity demand is a function of prices for all goods in the equation. Walras also argued that general equilibrium analysis using simultaneous equations considers quantity supply quantity of each commodity to be the function of price for all factors of production.

Both Marshall and Walras are considered to the pioneers in the 20th century integration of mathematics into the social theories of economics. It is irrelevant to argue the merits or demerits of the type of math both used in their economic theories. Marshall and Walras are credited as amongst the pioneers of neoclassic economics.

Marshall is deemed to have resolved the classical economics controversy for demand and the Marginalist's economics assertions about the supply in value theory. Marshall rejected any single cause for value of a commodity. Marshall asserted that equilibrium point in the market is achieved by simultaneous determination of the cost of production and price of the commodity. Marshall is

also credited with the introduction of elasticity in demand. Elasticity in demand is explained as a measure of the responsiveness of demand to changes in commodity prices. Marshall's 1890 classic *Principles of Economic Analysis* hinged on the intellectual use of '*ceteris paribus*'. Walras introduced the so-called law that is based on the assumption of *laissez-faire* or 'letting-go' of the markets which would ultimately lead to the settlement of markets into equilibrium. Walras *laissez-faire* assumes that any excess demand will lower the prices through the 'invisible-hand'. Walras' 1874 *Elements of Pure Economics* explains this theory (Walras, 2013).

4. BEYOND MARSHALL & WALRAS

The later work by John Maynard Keynes, a student of Marshall gained popular support during the so-called 'great depression' in 1920's. The Keynesian economics advocated maximising consumption to push employment and economic growth. The *fiscal multiplier model* of Keynes came under criticism by prominent American economists such as Milton Friedman. Friedman criticized the Keynesian model for misinterpreting the relationship between savings, consumption and growth (Friedman, 1995).

This little snap-shot of economic theories post Marshall and Walras gets very complicated once we get to the era of Milton Friedman. The axiomatic amalgamation of *ceteris paribus* and *laissez-faire* provided perfect grounds to bring more mathematical assumptions in to economics. Economics at time started to detach from political economy and social realities. The assumption based mathematics allowed economics to be labelled as being rigorously 'scientific'. The social theory was discarded to favour the mathematics' 'neat' and 'logical' explanations for economic situations. The symbolic language of mathematics provided the perfect solution to deal with the messy realities and factual evidence of socio-economic dilemmas facing nations. Econometrics came forth as a more advanced version of the marriage between statistics and mathematics in economics. Econometrics seemed to be the perfect fit for the assumption-heavy mathematical economics based on the *ceteris paribus* and *laissez-faire* principles.

The 1944 work '*Theory of Games and Economic Behaviour*' by mathematician John von Neumann, economist Oskar Morgenstern and Harold William Kuhn created the basis for game-theory in economics. The expected utility hypothesis was based on the assumption that all the agents had the same probability distribution (Neumann, Morgenstern, & Kuhn, 2007). This assumption added convenience to the *objective probabilities*. Jimmie Savage and Johann Pfanzagl later extended the *objective probabilities* to *subjective probabilities* by adding agent's rational preferences to be endogenized through probability (Berkson, 1980).

Game theory has paved the way for the use of computational mathematics and statistics for offering models in economics. The popularity of

fictitious ‘agent’ based behaviour modelling to explain complex economic phenomenon’s underpins the game-theory. Academia has leveraged the game-theory to earn accolades globally. French economist Jean Tirole became the 11th winner of game-theory based Nobel prize in 2014 (Kato, 2016).

The 1971 pioneering work on econometrics by Lawrence Klein et al. earned them a Nobel in economics. Frequency distribution, statistical inferences, multiple-regression analysis, probability distribution etc. are all various statistical methods are part of endless economic models based on mathematics and statistics. *Ceteris paribus* and *laissez-faire* principles remain the core assumptions in all these models. These timeless assumptions have allowed the main-stream economists from the 30-top economic research institutions to successfully apply ‘*obfuscating-mathematics*’ lipstick on the ‘*economic*’ pig. Game-theory remains at the forefront of economic modelling to explain the maths (Klein, 1971).

Complexity economics has caught the fancy of contemporary economists. The harsh criticism of system equilibrium could be answer through the perpetual reconstruction of economy through a combined computational and mathematical analysis. The forming and reforming adaptive behaviour of the agents within the economy retained the essence of game-theory in complexity economics. The *ceteris paribus* and *laissez-faire* principles were used to create an artificial stock market for complexity economic modelling by the Santa Fe Institute. The model was pitched as being ‘pluralist’ in its approach towards agent behaviour in the fictitious market. The model predicated perfectly homogenous outcomes based on ‘rational’ expectations. The subjectivity of the ‘rational’ and ‘expectations’ was purely theoretical. The model also showed periods of crashes and maximising bubbles due to varied ‘technical’ trading strategies. The ‘technical’, ‘trades’ and ‘strategies’ were also hypothetically induced. The top-30 have accepted complex economics as being part of the main stream economics.

At the heart of these modern and so-called innovations in economic science is the ‘Agent’ behaviour. The introduction of AI (Artificial Intelligence) and DL (Deep Learning) in economic modelling for decision making is now part of the complex economics. Agent-based computational economics (ACE) is a computational economic model of agents within a dynamic system. The systems create agent-based models that are computational objects. These objects interact within the modelled scenarios according to fictitious rules over time and space. The rules underpin the *ceteris paribus* and *laissez-faire* principles. Rationality of the agent remains constant and across the system.

Economic decision-making models using DL require *non-linear data*. These DL economic predictability models are computationally complex. They are pitched as dynamic processes to explain the economic systems. The DL approach in economic modeling is unable to connect fictitious learning nodes to the hidden layers of interdependencies. The interdependencies are due to the varying factors within the environment. These factors are not included in the assumed systems for DL modeling. The DL algorithms that are being used in economics are based

on linear regression to offers precise mathematical interpretations. It however has no accurate way to factor in the real-world instances that influence the decision making. It is due to the limitation of the DL system that only relies on linear data. Non-linear data is a must for accuracy in predicting economic decision-making relevant to the real world.

The DL economic decision making models are currently of two types. These models are based on assumed equilibrium conditions. These models are called *Dynamic Stochastic General Equilibrium (DSGE)* and *Computable General Equilibrium (CGE) models*. The assumed equilibrium conditions for these two models do not exist in the real world. The use of linear-data does not factor in the multi-dimensional non-linear data of the real world. The factored assumptions based on *ceteris paribus* and *laissez-faire* principles neither make the models scalable nor remove dependency on belief *biases*. These complexity economic models have failed to accurately predict the dynamic real-world market scenarios.

5. ECONOMIC AUTISM

The dogma of the current main-stream economics is strictly controlled by the top 30-institutions in the western world. These institutions control the dissemination of economic knowledge across the western world and their linkages across the globe. The stunted development and opaque delivery of economics as a subject raised protests amongst the students. The famous letter by the French economics students published in *Le Monde* in 2000, popularised the term ‘autism’ with the contemporary teaching of economics. Much scholarly ink has been spilled for-and-against the movement that called for reforms in the economic teaching across the western world.

The axiomatic straight-jacket of main-stream economics was succulently argued by Christian Arnsperger and Yanis Varoufakis in their 2006 work. Forward a three-axiom argument against the main-stream economics in the western world. Arnsperger & Varoufakis argue that contemporary economics suffers from *methodological individualism*. Neoclassical economics aims to explain socio-economics through strict separation of structure from the agency. This axiomatic strict separation insists that socio-economic explanation must be understood as the crystallisation of agent’s past actions. This *methodological individualism* avoids the fundamental question of the linkages between the micro-agent and the macro-social structures. This uni-directional explanation of agent-actions into socio-economics is a fantasy (Arnsperger & Varoufakis, 2006).

Also question the axiomatic separation of agent’s beliefs from *preference behaviour* that is solely explained as *maximising preference-satisfaction*. They term this as *methodological instrumentalism*. The final argument is the imposition of *perfect equilibrium* in the agent’s behaviour. This imposition is assumed based on *ceteris paribus* and *laissez-faire* principles. This

assumption is also based on analytically-assumed equilibrium that does not exist. Analytics in this case is obfuscating mathematics. Main stream economists mistake the simplistic beauty of mathematical equations as reality and facts. Exposing this so-called ‘*discovered equilibrium*’ as an axiomatic theoretical move. This theoretically assumed axiomatic agent equilibrium is termed as *methodological equilibration* (Arnsperger & Varoufakis, 2006).

Arnsperger & Varoufakis (2006) have presented three cogent arguments against the main-stream neoclassical economics. The three axiomatic conditions are aptly termed as *neoclassical meta-axioms* by them. The concluding remarks from this brilliant work from Christian et al. deserves to be quoted verbatim,

‘Neoclassical economics, despite its incessant metamorphoses, is well defined in terms of the same three meta-axioms on which all neoclassical analyses have been founded since the second quarter of the 19th Century. Moreover, its status within the social sciences, and its capacity to draw research funding and institutional prominence, is explained largely by its success in keeping these three meta-axioms well hidden..... A pluralist economics will remain impossible as long as the social economy rewards economists in proportion to their success in keeping their models’ foundations opaque.’

6. BLIND FOLLOWING THE BLIND

The so-called Dahlem Report (Colander et al., 2009) came about as an opinion paper after intense discussion at 98th Dahlem Workshop in 2008. It is difficult to find a better paper to describe the utter failure of mainstream academic economics. Lux et al. took a definitive position in chastising their colleagues in the mainstream academia. The abstract of the paper states,

‘In our view, this lack of understanding is due to a misallocation of research efforts in economics. We trace the deeper roots of this failure to the profession’s insistence on constructing models that, by design, disregard the key elements driving outcomes in real-world markets. The economics profession has failed in communicating the limitations, weaknesses, and even dangers of its preferred models to the public.’

The build-up of our discussion till point is neatly summed up by Lux et al. The Queen’s question also seems to be answered. It also answers our logical inquiry about the reasons behind the failure of economists to predict or even foresee the catastrophic 2008 global financial crisis. Lux et al. call it ‘lack of understanding’ on part of academic economists. Their lack of understanding is an all-encompassing term for sheer incompetence, lack of knowledge and lack of ethical, moral and professional standards. These are harsh words and very difficult to propose or publish in mainstream academia. Perhaps they will never appear in any mainstream academic journal. They are still true and valid.

The Dahlem Report fundamentally questions the validity of the academic economics. Lux et al. call this ‘*systemic failure of the economics profession*’. The report relies on common sense logic. The same basis that we have used as our approach for this paper. Lux et al. point out the detachment of mainstream economic from the heterogeneity that exists within global social-economic life. Lux et al. call this the ‘*blindness against the coming storm*’.

Lux et al. point to the ‘academic moral hazard’ of using mathematical modelling underpinned by assumptions that are based on low volatility periods. Lux et al. quoted Barry Eichengreen to point out that the use of mathematical models does not diminish the underlying risk in real-world transactions (Eichengreen, 2008).

Lux et al. are highly critical of the research being conducted at the leading top-30 mainstream western economic institutions. They made a scathing comment about the type of models being studied and promoted as quality research in these babel towers of economics. Lux et al. state,

‘Given the established curriculum of economic programs, an economist would find it much more tractable to study adultery as a dynamic optimization problem of a representative husband, and derive the optimal time path of marital infidelity (and publish his exercise) rather than investigating financial flows in the banking sector within a network theory framework.’

These comments come from eight well-respected academic economists in the western world. The uni-agent rational behaviour-based modelling has resulted in flawed models in economics. Heterogenous agents with imperfect behaviour are simply not considered for modelling in the mainstream economic teachings. The deep economic parameters adopted for modelling are based on purely theoretical assumptions of ceteris paribus and laissez-faire. Lux et al. assert, ‘*The ‘deep parameters’ only seem sensible if one considers the economy as a universal organism without interactions*’. Lux et al. call these questionable assumptions of ceteris paribus.

Lux et al. deliver a sobering conclusion to their insightful and candid research. Their conclusion is relevant and must be taken seriously. They state,

‘Defining away the most prevalent economic problems of modern economies and failing to communicate the limitations and assumptions of its popular models, the economics profession bears some responsibility for the current crisis. It has failed in its duty to society to provide as much insight as possible into the workings of the economy and in providing warnings about the tools it created. It has also been reluctant to emphasize the limitations of its analysis.’

Steve Keen tackles the question if another financial crisis post 2008 can be avoided (Keen, 2017). He discussed the 2003 claim of Economics Nobel laureate Robert Lucas while addressing the American Economic Association. Lucas claimed that due to his thesis on macroeconomics had successfully solved

the depression problem. Keen then mocks the Lucas claim which feel apart four years later when the global economy entered the deepest depression since 1929.

Keen also highlights the arrogance and self-congratulatory position of mainstream academic economists in their failure to recognise the symptomatic failure of the economic system. He wrote, *'In contrast to the orgy of self-congratulation in mainstream economics, alarms were being sounded by non-mainstream economists—and in particular by the English economist Wynne Godley'*.

Economics Nobel laureate Paul Romer is an exception amongst the mainstream thinkers. Perhaps the immunity offered by being Nobel laureate clads the disdain directed at him for his criticism of the mainstream academia. Romer wrote a seminal 2016 work on the problems ailing macroeconomics (Romer, 2016). Romer systematically layout the case of fictitious assumptions and mathematical equations used by mainstream economists to obfuscate their deeply flawed economic models. Romer takes a jab at the academia by equating the arrogance of string-theorists with their counter-parts in economics. Romer states about the parallel between the two genres within academia,

'The conjecture suggested by the parallel list hat developments in both string theory and post-real macroeconomics illustrate a general failure mode of a scientific field that relies on mathematical theory'.

Romer asserts that facts established through research rigour are often disregarded if they prove any results that run counter to the *'officially sanctioned theoretical vision'*. The sanctioned version is the view held by the mainstream economists in these babel towers of academia. Romer laments the eventual disregard to facts as the irrelevance of truth in favour of mathematical equations. Romer terms this as, *'In physics as in macroeconomics, the disregard for facts has to be understood as a choice'*.

Romer finally comes to the conclusion that mainstream economics in academia is plagued by choosing loyalty to persons over science. Romer insists that the nature of science is to seek truth and not to embellish hard facts to favour the flawed theories of a fellow academic. He states,

'Yet some of them also discourage me from disagreeing openly, which calls for some other explanation. They may feel that they will pay a price too if they have to witness the unpleasant reaction that criticism of a revered leader provokes. There is no question that the emotions are intense..... But my sense is that the problem goes even deeper than avoidance. Several economists I know seem to have assimilated a norm that the post-real macroeconomists actively promote—that it is an extremely serious violation of some honour-code for anyone to criticize openly a revered authority figure—and that neither facts that are false, nor predictions that are wrong, nor models that make no sense matter enough to worry about.'

Romer is troubled by the moral trepidation of placing individual loyalty over scientific discovery based on truth. Romer is also concerned about the indifference shown by the economists towards the failings of the mainstream economics. Romer notes the detrimental tolerance of these glaring errors to be more fatal to science than their mere assertions.

7. CONCLUSION

The conversation about the failings within the mainstream western economic thought is stagnant. There is sporadic emergence of literature in non-mainstream academic journals. There is also acknowledgement on some social media forums. The term 'narrative fixation' in economics has been used to discuss the failings of the mainstream economics in the west. Edward Fullbrook strongly advocated narrative pluralism in his recent book that highlights the narrative fixation in economics (Fullbrook, 2016). McCloskey in his 1990 work also tackled the narrative fixation in economics (McCloskey & McCloskey, 1990). McCloskey's arguments hinge on the ethics of story-telling and the use of metaphors in economics. McCloskey does not criticise economics for its use of highly contentious assumptive stance to avoid real-world scenarios. McCloskey takes exception to the drifting away of economics from ethics. McCloskey questions the position of mainstream economists to adopt the principle of Pareto Optimal^{***} as the moral mainstay. McCloskey relies on John Rawls assertion that mainstream economists reliance on Pareto Optimal as the underpinning of their moral stance is akin to pulling a rabbit out of a hat (Sen, 2008).

The implied readership of mainstream scholarly literature is akin to Bazerman's description of Newton's scientific paper audience (Bazerman, 1988). The reader is assumed to be cold-blooded, desiccated and uninvolved. This is also true for the assumed singular 'agent' with presumed rational behaviour in all economic models. Such an agent is detached from the social constructs. *Homo Economicus* depicted in the mainstream economic literature is not only removed from established evolutionary science but it also negates all rational human behaviour.

Nobel laureate Joseph Stiglitz calls the contemporary teaching of economics in mainstream top economic institution as the 'triumph of ideology over science' (Stiglitz, 1991). Alcorn & Solarz, (2006) call it, '*The repetition of simplified and vulgarized economic conclusions is the main task of introductory, intermediate, and even some advanced economics courses, and little else sticks with the students.*' None of these assertions are far from the truth. These are observations from some of the leading economic thinkers of our times. They have shown the courage to confront the lingering creep and decay of economic

^{***} Pareto optimality is a state of resource allocation in which it is impossible to make any one individual better off without making at least one individual worse off.

ideologies festered by ideological beliefs of select few in the mainstream western economics.

Kari Polanyi Levitt has successfully argued that countries outside of the western world flourished by deploying heterodox economic policies. Levitt also exposed the deeply flawed economic assessments of the World Bank and IMF based on mainstream western economic models. Levitt succulently proves that World Bank and IMF economists are not accountable to the millions of people in the developing world who bear the brunt of their failed economic prescriptions. Levitt attributes the unprecedented global income inequality and social exclusion to the flawed western economic policies imposed on developing countries through the likes of World Bank and IMF. Levitt makes a cogent argument that bears testament to all the literature that we have reviewed for this paper. Levitt rightly points out that economy does not form the base of any society. It is the equitable political and social order that provides the base for an equitable economic order (Levitt, 2006).

Mainstream western economics has resulted in the western powers meddling in the affairs of the developing world. Recent examples of US President Trump's divisive politics and UK Prime Minister Boris Johnson's attempt at 'no-deal' Brexit reveal their economic desperations. Dudley Seers referred to such measures as the failure of international negotiations for an equitable economic order (Seers, 1983). Levitt quoted Seers to emphasize Seers foresight for such neo-colonial intrusions by the western powers in the developing world,

'If and when nationalism is extended in this way, and a world of regional blocks replaces the neo-colonial system, the governments of the superpowers will feel less compulsion to meddle (whether by financial aid, diplomatic pressure or military force) in the affairs of other countries, and also be less able to do so: world peace will be more secure.'

Seers words read like a prophecy. The deep economic fissures appearing in the western economies have given birth to neo-colonial strategies. The phenomenal economic successes in the East marked by China, Turkey, Russia, UAE, Malaysia etc. are unacceptable to the neo-colonist and western far-right economic policy hawks. These global economic policy conflicts can only be reconciled if the mainstream academia revert to the ethical pursuits of their responsibilities. Anything less then that will not work.

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**KRALJICA JE PITALA: STANJE GLAVNOG TOKA
EKONOMSKE ZNANOSTI****Sažetak**

Neoklasična škola duguje svoj razvoj Alfredu Marshallu i Leonu Walrasu s kraja 19. stoljeća. Marshallu se pripisuje i teorija parcijalne ravnoteže, a Walras je poznat po svojoj teoriji opće ravnoteže. Obojica su zaslužni za primjenu matematike u objašnjenjima ekonomskih fenomena. Od tada je matematička ekonomija dosegla novu razinu. Britanski ekonomist Marshall oslanjao se na načelo pretpostavke Ceteris paribus, a francuski matematičar Walras na načelo laissez-faire. U neoklasičnoj ekonomiji odvijale su se velike promjene nakon Velike gospodarske krize, koja je počela 1929. godine i promijenila stav o gospodarstvu Johna Maynarda Keynesa. On je bio Marshallov gorljivi obožavatelj i najbolji učenik. S vremenom su racionalno ponašanje agenata i prijedlog vrijednosti pridonijeli mijenjanju raznih predloženih modela mainstream-ekonomije. Globalna finansijska kriza iz 2008. godine izazvala je reakciju cijeloga svijeta. Od prošlog desetljeća trilijuni dolara ubrizgani su u globalne finansijske sustave kako bi se osiguralo da megafinansijske institucije zbog toga ne propadnu. Nekoliko dobitnika Nobelove nagrade za ekonomiju, uz druge istaknute ekonomiste, doveli su u pitanje etičnost glavne struje akademske zajednice i njihovu nesposobnost da predvide finansijsku krizu 2008. godine. Kraljica Elizabeta II. krizu je nazvala „strašnom“. Njezino Veličanstvo poznato je po iznimnoj sposobnosti prikrivanja osjećaja za javnost. Ovaj rad ima cilj ispitati nedostatke mainstream-ekonomije uzevši u obzir postojeću znanstvenu literaturu o toj temi. Autori vjeruju da je mainstream-ekonomiju prijeko potrebno revidirati.

Ključne riječi: *neoklasična škola, Alfred Marshall, Leon Walras, mainstream-ekonomija.*

JEL klasifikacija: *B10, B13.*

