CLASSICALS VERSUS KEYNESIANS:

A COMPREHENSIVE TABLE TO TEACH 50 DISTINCTIONS BETWEEN TWO MAJOR SCHOOLS OF ECONOMIC THOUGHT

NC STATE UNIVERSITY

NC STATE UNIVERSITY POOLE COLLEGE OF MANAGEMENT

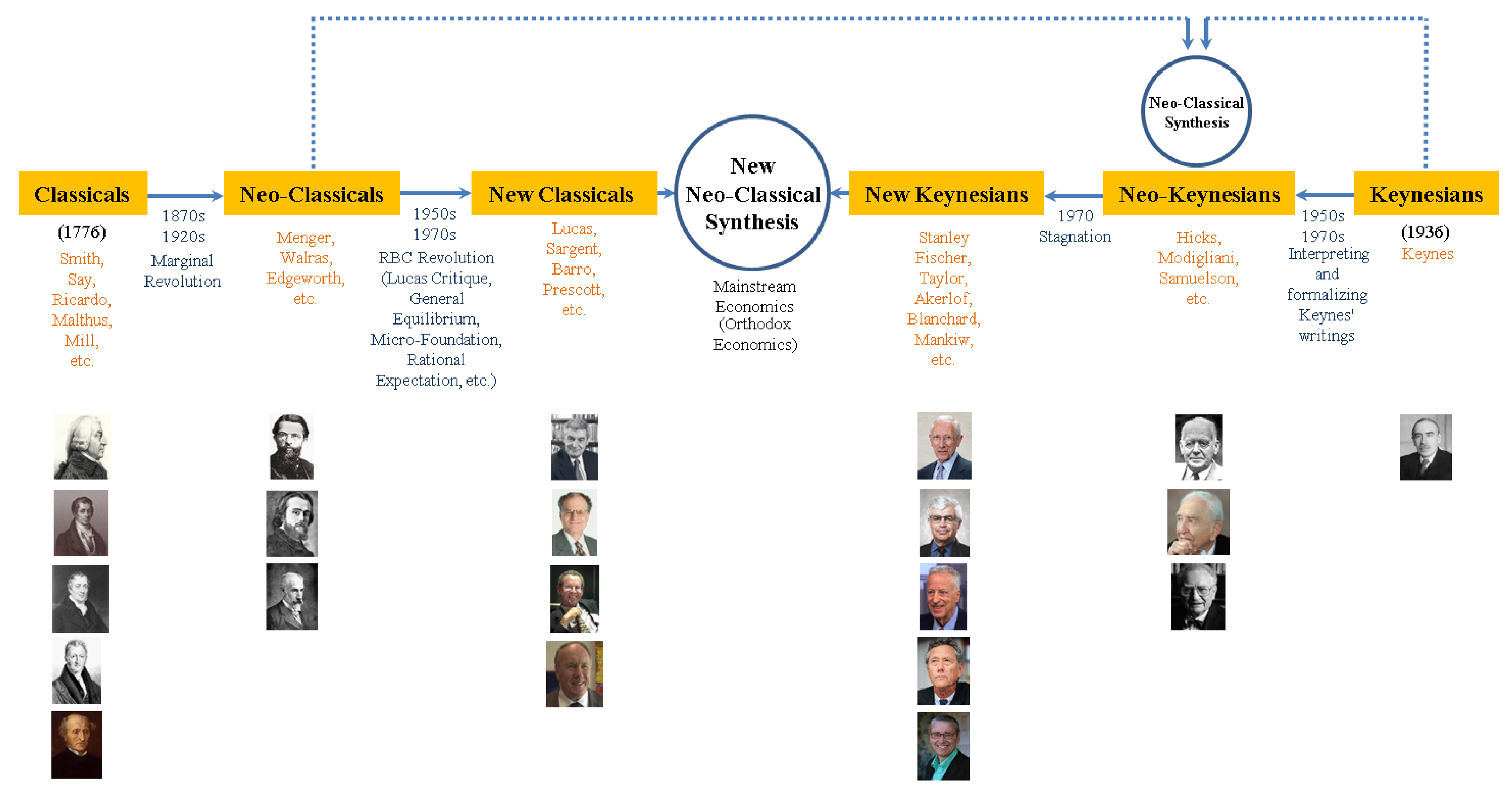
Seyyed Ali Zeytoon Nejad Moosavian*, szeytoo@ncsu.edu

*. Ph.D. Candidate in Economics, Department of Economics, North Carolina State University

Intro and Discussion: The main schools of economic thought that have emerged in the past few centuries include **Classicals, Neo-Classicals, New Classicals, Keynesians, Neo-Keynesians, and New Keynesians**, which can be classified under the two broad categories of **Classicals** versus **Keynesians**. The figure placed at the center of this poster exhibits the **evolution process** of the two major schools of economic thought as well as that of the new neo-classical synthesis, and summarizes **a sequence of momentous events** occurred over the course of the formation of these schools of economic thought. The **essential distinctions** among the Classical and Keynesian schools of economic thought are **discussed in greater detail in the tables**. In particular, the first column (entitled "Aspect") introduces the point of comparison, the second column (entitled Classicals) briefly explains the way Classicals attend to that specified aspect, and the third column (entitled Keynesians) briefly explain the way Keynesians attend to the specified aspect. The last column provides additional information and extra elaboration on related matters, if needed.

Abstract: Macroeconomics essentially discusses macroeconomic phenomena from the **perspectives of various schools of economic thought**, each of which takes **different views** on how macroeconomic agents make decisions and how the corresponding markets operate. Therefore, developing a clear, comprehensive **understanding of how and in what ways these schools of economic thought differ** is a key and a prerequisite for economics students to prosper academically and professionally in the discipline. This becomes even more crucial as economics students pursue their studies toward higher levels of education and **graduate school**, during which students are **expected to attain higher levels of Bloom's taxonomy**, including analysis, synthesis, evaluation, and creation. Teaching the **distinctions** and **similarities** of these two schools has never been an easy task to undertake in the classroom. Although the reason for such a hardship can be multi-fold, one reason has undoubtedly been students' lack of **a holistic view on how the two mainstream economic schools of thought differ**. There is strong evidence that students make smoother transition to higher levels of education after building up such groundwork, on which they can build further later on (e.g. Didia and Hasnat, 1998; Marcal and Roberts, 2001; Islam, et al., 2008; Green, et al., 2009; White, 2016). The paper starts with **a visual spectrum of various schools of economic thought**, and then narrows down the scope to the Classical and Keynesian schools, i.e. the backbone of modern macroeconomics. Afterwards, a holistic table contrasts the two schools in terms of more than 50 aspects. Not only does this table help economics students **enhance their comprehension, retention, and critical-thinking capability**, it also benefits macroeconomic instructors to **gain a holistic view and deliver such a view more easily** in their classrooms. The pedagogical aspects of this approach are discussed throughout the paper with reference to the economics education literature.

Conclusion: Economics is a discipline that involves **a wide variety of schools** of thought, each of which can differ from the others in terms of **numerous aspects**. This variety and numerousness can be **a source of confusion** for many economics students. This paper proposes **a holistic contrast table** that can serve as **a complementary tool** to eliminate this potential reason for concern in the teaching of macroeconomics. It is shown that this important task can be undertaken through structuring an organized contrast table, which clearly explains all the existing distinctions, helping students clear up the fuzziness and confusions about the existing distinctions. In particular, the primary aim of this paper is to facilitate the teaching and learning of the two major schools of economic thought, i.e. Classicals and Keynesians, aiming at helping students to get **the big picture of the distinctions** at once in a single table. Embedded throughout the paper are suggestions and handy tips for how instructors should design and apply such a tool in their teaching.



#	Aspect	Classicals / Neo-Classicals / New Classicals	Keynesians / Neo-Keynesians / New Keynesians	Notes
1	**Primary Method of Investigating Economics Phenomena**	Equilibrium Pattern	Disequilibrium Pattern	This distinction has its roots in the historical origins of their formations (prosperity vs. recession).
2	**Primary Time Horizon of Analytical Vision**	Long-run	Short-Run	Despite this, both also provide middle-run versions in some cases.
3	**Main Argument about the Time Horizon of Analytical Vision**	In the long run, prices always adjust up or down to ensure market clearing. (The concept was initially explained by Jean-Baptiste Say in 1801)	In the short run, markets do not clear. (Different markets do not clear for different reasons, e.g. goods market due to nominal price rigidity, and labor market due to efficiency wages)	-
4	**Main Motto to Justify Their Time Horizons of Analytical Vision**	Milton Friedman: "I don't try to forecast short-term changes in the economy. The record of economists in doing that justifies only humility."	Keynes: "In the long run, we are all dead."	McCandless & Weber (1995): If the long-run effect of monetary policy on real economic activity is truly zero, then any short-run successes in reducing downturns can only come about at the expense of reducing upturns.
5	**Primary Focus of the Analysis**	Economic Growth	Business Cycles and Recessions	-
6	**Primary Concentration on GDP Components (Trend vs. Volatility)**	General Trend of GDP, i.e. the Long-run Trend of GDP	Fluctuations of GDP (e.g. Recessions, Upturns, Prosperity, and Downturns)	Economic Value Creation vs. Economic Stabilization
7	**The Side of the Economy on Which They Lay the Main Emphasis of Their Analysis**	Supply Side of the Economy	Demand Side of the Economy	Moosavian (2016a and 2017) demonstrates this distinction through a comprehensive visual big picture for macroeconomics.
8	**Proposed Tools to Achieve the Economic Goals Defined**	Free Markets (and the Least Degree of Government Intervention)	Public Policy and Government Intervention (Monetary Policy & Fiscal Policy)	-

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9	**Basis of Theorization**	Theorization on the basis of micro-foundation and fully optimizing agents	Traditionally, ad hoc theorization, lacking micro-foundation and lacking optimization principles, but more recently, some New Keynesian micro-foundations in models	Although the traditional Keynesian economics lacked micro-foundation, New Keynesian (NK) economics does have micro-foundation (e.g. habit persistence, menu costs, and efficiency wages) and utilizes the setup of optimizing agents.
10	**The Proposed Scope of Government Intervention**	The least degree of intervention	A greater extent of intervention in the economy (suggesting a more active role for the government)	-
11	**Proposed Forms of Government Intervention in the Economy**	Regulating property rights, and managing externalities, public goods and common resources, etc.	All tasks proposed by Neoclassicals plus monetary and fiscal policy	-
12	**Origins of the View in Terms of Political-Economic Philosophy**	Capitalism-Liberalism (Laissez-faire)	Capitalism-Socialism (Keynesianism)	After all, Keynesianism does not have a clear border in terms of political-economic philosophy, but definitely, it is a not a Totalitarian.
13	**Their Assumptions about Prices**	Changing, Fully Flexible, and Adjusting	Fixed, Rigid, and Sticky	New Keynesians point out to habit persistence, menu costs, etc. as underlying reasons and micro-foundations for price rigidities.
14	**Their Assumptions about Wages**	Changing, Fully Flexible, and Adjusting	Fixed, Rigid, and Sticky	New Keynesians point out to efficiency wages (multiple versions), etc. as underlying reasons and micro-foundations for wage stickiness.
15	**Permanent Income Hypothesis (PIH) and Ricardian Equivalence (RI)**	Holds	Does Not Hold	-
16	**Quantity Theory of Money (QTM)**	Holds in the long run	Does not hold in the short run	-

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17	**Their Assumptions about Money Neutrality**	Neutrality of Money and Classical Dichotomy	Monetary-Disequilibrium Theory (Due to Bounded Rationality, Money Illusion, etc.)	Empirical evidence suggests that in the long run neutrality of money holds, but not so much in the short run.
18	**Monetary Policy**	No Scope (Quantity Theory of Money)	There is Some Scope. (Monetary policy has real effects in the short run.)	-
19	**Fiscal Policy**	There is no scope. (Because Ricardian Equivalence and Permanent Income Hypothesis hold.)	There is scope. (Because Ricardian Equivalence and Permanent Income Hypothesis do NOT hold)	NK: The assumptions of Recardian equivalence, such as capital market perfection, are not realistic. Instead, there are liquidity constraints, etc. Keynesians argue that fiscal policy can still be effective particularly in a liquidity trap, in which crowding out is trivial or absent, as interest rates do not change.
20	**Aggregate Supply**	Vertical	Upward-Sloping or Even Horizontal	NK: AS is upward-sloping in the middle run, and horizontal in the short run. New Classicals (NC): AS is vertical in the long run, and is a function of the existing stock of factors of production in the economy.
21	**Method of Deriving IS Curve**	Using Classical Cross	Using Keynesian Cross	-
22	**Philips Curve**	Short-Run Phillips Curve (Downward-Sloping)	Long-Run Phillips Curve (Upward-Sloping)	NK: There is a trade-off relationship between inflation and unemployment. NC: There is no such a trade-off in the long run.
23	**Views about Central Banks and the Conduct of Monetary Policy**	Monetary rules should be followed to achieve economic stability.	Discretion should be given to the Central Bank to manage the fluctuations of the economy and achieve the objectives of the dual mandate.	The monetary rule vs. discretion debate
24	**Which comes first: the Supply or the Demand (A Causality Dilemma)**	Say's Law: Supply creates its own demand.	Keynes' Law: Demand creates its own supply.	-

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25	**Main Founder**	Adam Smith	John Maynard Keynes	-
26	**Holy Book (The Bible)**	An Inquiry into the Nature and Causes of the Wealth of Nations (1776)	The General Theory of Employment, Interest and Money (1936)	-
27	**Other Economic Schools of Thought Which Have Some Close Ideas and Foundations**	Classicals, Neo-Classicals, New Classicals, Monetarists, Austrians (to some degree), etc.	Keynesians, Neo-Keynesians, New Keynesians, Post Keynesians, etc.	-
28	**Main Contributors to the Economic School of Thought (Other Than the Founders)**	*Classicals* (Smith, Ricardo, Malthus, etc.) *Neo-Classicals* (Jevons, Menger, Walras, Edgeworth etc.) *New Classicals* (Lucas, Sargent, Barro, Prescott, etc.)	*Keynesians* (Keynes) *Neo-Keynesians* (Hicks, Modigliani, Samuelson, etc.) *New Keynesians* (Stanley Fischer, Taylor, Akerlof, Mankiw, Blanchard, etc.)	There are also post-Keynesians (Kalecki, Robinson, Kaldor, Davidson, Sraffa, Kregel, etc.), whose ideas have their roots in Keynes' book, whose discussion is beyond the scope of this table.
29	**Original Universities (Academic Homeland)**	University of Edinburgh, Chicago, etc.	University of Cambridge. etc.	-
30	**Market-Clearing**	Markets clear.	Markets do not clear.	-
31	**Competition**	Perfect	Imperfect/Monopolistic	-
32	**Information**	Perfect	Imperfect	-
33	**Expectations**	Rational (Forward-Looking) (Internal Model Consistency)	Keynes: Emotional NK: Rational	Rational Expectation Hypothesis implies that when information is perfect, and expectations are rationally formed, money is neutral, in the absence of money illusion.
34	**Unemployment Period in the Economy**	Temporary and Voluntarily	Permanent and Involuntarily	-
35	**Micro Foundation**	Models are always based on micro-foundations.	Historically, Keynesian economics lacked micro-foundations. More recently, NK have developed New Keynesian micro-foundation, which still uses the results from marginal revolution in the late 19th century.	Although the traditional Keynesian economics lacked micro-foundation, New Keynesian economics does have micro-foundation (e.g. habit persistence, menu costs, and efficiency wages) and uses the setup of optimizing agents.

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36	**Market Structure**	Mostly, perfectly competitive markets, and frictionless markets	Mostly, imperfect competition, monopolistic competition, monopolies, and markets with frictions	-
37	**Historical Origin and Time of Formation**	Prosperity (developed in the late 18th and early 19th century)	Recession and Depression (developed during the Great Depression and in Keynes' 1936 book)	-
38	**Agents' Objectives in Their Economic Models**	Almost always, fully optimizers	In some cases, not fully optimizers (for a variety of reasons)	-
39	**Main Creator of …**	Microeconomics	Macroeconomics	-
40	**Main Version of the Variable Output to Study in Their Models**	Potential Output	Potential and Actual Output (Output Gap)	-
41	**Neutrality or Non-Neutrality of Monetary Policy**	Nearly neutral or even super-neutral (A stronger condition)	Short-run non-neutrality of monetary policy due to nominal rigidities	-
42	**Competition Structure**	Perfect Competition	Monopolistic Competition	-
43	**Typology of the Goods Produced in Their Competitive Structures**	A Homogenous Good	Differentiated Goods	-
44	**Nature of Fluctuations and Volatilities**	Efficiency of Business Cycles (Part of self-correcting mechanisms in the economy)	Business Cycles are Due to Market Failures (Business cycles are a reason for concern)	-
45	**Primary Sources of Shocks**	Technology shocks (the main source of economic fluctuations)	Various types of shocks (Monetary shocks, technology shocks, preference shocks, etc.)	-
46	**Role of the School in the Development of Real Business Cycle Theory**	New Classicals were the founders of RBC theory. (seminal papers: Hydland & Prescott (1982) and Prescott (1986))	New Keynesians added Keynesians elements and features (e.g. monopolistic competition, and nominal rigidities) and developed the New Keynesian RBC model.	Gali (2015) provides a good explanation of how the RBC theory gradually formed.

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47	**Comparing Their RBC and DSGE Models**	Basic RBC, Basic Classical Monetary Model, Money in the Utility Function (MIUF) Model, etc.	RBC model with investment cost adjustment, RBC model with habit persistence, etc.	-
48	**Sources of Economic Growth**	Inputs accumulation and technology progress (increased productivity)	In the short term, economic growth is caused by an increase in aggregate demand, increased government spending, etc. (given tech level and stock of inputs).	-
49	**The Nature of Fluctuations in the Stock Market (Information Efficiency)**	The Efficient Market Hypothesis (EMH) – Stock markets are informationally efficient.	Market Irrationality Theories (MITs) (e.g. Animal Sprits, Waves of Pessimism and Optimism, and Irrational Exuberance)	-
50	**Effect of Monetary Expansion on Real Interest Rate**	No effect on real interest rate (Fisher Effect holds)	Effect on real interest rate (Liquidity Effect holds)	There is empirical evidence that a positive money supply shock derives real short-term interest rate down, and real output up. (It seems a Liquidity Effect dominates in the short run, while a Fisher Effect dominates in the long run.)
51	**Market Clearing**	Markets clear (in the long run)	Markets do not clear (in the short run)	-
52	**Views on the Relevance of Economic Policy**	*Neoclassicals*: Fiscal policy causes crowding out and inefficiency, and expansionary monetary policy is irrelevant as it only causes inflation. *New Classicals* emphasize the conditions under which economic policy can be effective.	*Keynesians*: Economic policy causes real effects on the economy. Expansionary monetary policy and expansionary fiscal policy cause economic growth in the short run. Active countercyclical efforts of monetary and fiscal policy can bring about real effects and economic stabilization. Unanticipated policy has real effects.	An economic policy is countercyclical if it works against the cyclical tendencies in the economy. Expansionary monetary policy can be implemented in the form of lowering the benchmark federal funds rate (aka discount rate), decreasing required reserves for banks, purchasing Treasury securities on the open market, etc. Expansionary fiscal policy can be implemented in the form of tax cuts, transfer payments, rebates, increased government spending, etc.