Introduction: Executive Summary and Innovations in this Thesis

This thesis seeks to restore economic theory, in an updated version, to its place of origin, within the scholastic natural law. This chapter summarizes the innovations in the thesis. The Thesis follows the outline of the scholastic understanding of human nature, which combines insights from Aristotle Augustine, as combined by Thomas Aquinas. According to this view, derived from scholastic moral philosophy, man is at once a 'personal' (meaning both 'rational' and 'religious'), 'domestic' (comprising 'conjugal,' 'money-using,' 'social') and 'political animal.' Each of the three chapters considers one element in this integrated view. The final chapter (4) instantiates the scholastic view of human nature in a new Human Flourishing Index (HFI).

At the initial defense of my thesis in January 2022, I received thoughtful and helpful comments from Dr. Sarolta Laura Baritz, O.P., and Dr. Sándor Kerekes DSc., as well as probing and thoughtful questions questions from Dr. Karoly Mike. Since that defense, I modified my thesis in response to the comments, in ways which I think make the thesis more defensible, as summarized below

Chapter 1: Man as 'Personal Animal' (Meaning 'Rational' and 'Religious')

The first chapter presents a brief overview of the four main economic theories in history, economic theory, and the three branches of today's neoclassical economic theory (summarized in Table 1-1). Then the four basic equations which describe the economic behavior of an individual according to the updated 'Neo-scholastic' economic theory are presented, and compared with the three basic equations of the prevailing neoclassical economic theory, as well as the oversimplified two equations of Adam Smith's classical economics and Aristotle's slightly more complicated, but still mathematically 'under-determined' system. Three of the four equations are presented in Cobb-Douglas form, greatly simplifying the notation. In his History of Economic Analysis, Joseph Schumpeter noted (though without explaining) what he called 'The Great Gap'-the absence of any development of economic theory between Aristotle in the 4th century BC and Thomas Aquinas in the mid-13th century A.D.-even though, Schumpeter remarked, administering the Roman Empire "might have fully employed a legion of economists" (Schumpeter, 63).

I suggest a reason for this lack of development: a system with fewer equations than unknown variables is "underdetermined," and therefore has no unique solution. Hence the logical and mathematical incompleteness of Aristotle's system prevented its fruitful development.

Chapter 2: Man as 'Domestic Animal' (per Aristotle 'Conjugal,' 'Money-Using' and 'Social')

This chapter begins with Aristotle's description of marriage, then applies it to a simple example of a business firm, modeled on a children's lemonade stand, proceeds to apply this analysis to the reproduction of the children themselves, then shows how everyone's lifetime incpme is determined by marital status—and finally, shows how the stylized description is confirmed by census data and recent research on the national transfer accounts.

Then I outline the principles of a business firm, beginning with the simplest possible example—a children's lemonade stand—and show how the National Income and Product Accounts may be constructed by applying the same principles. Though nearly all economists regard economic transactions as limited to market exchanges, in this chapter as elsewhere I examine the substantial but overlooked role of transfer payments, which include both personal gifts (or their opposite, crimes) and their social analogue, distributive justice.

I begins with an overview of religious affiliation over the past 4,000 years, including Pew Forum projections to the year 2100. Then I show that religious practice is even more important in explaining a range of behavior, including fertility and charitable giving.

Then I develop and apply the analysis of the French economist Jacques Rueff (1896-1978) to illustrate the principles of Distributive Justice and Justice in Exchange, by examining the two largest macroeconomic policy problems, by developing and applying Rueff's Law of Unemployment and Rueff's Law of Inflation. The two biggest innovation in this chapter are, first, showing that the civilian unemployment rate is a function of net unit labor costs (that is, labor compensation after subtracting taxes on workers and adding social benefits received by workers and their dependents) as a share of national income; second, I develop and apply Rueff's insight that inflation (or more rarely deflation) is a function not of the domestic money supply (as conventional monetarist

analysis maintains) but of total foreign and domestic official monetary liabilities: the world supply of base money in each nation's currency.

Chapter 4: The Human Flourishing Index' (HFI)

The HFI is based on the combination of three separate databases: the Maddison Project Database which estimates national population and GDP per capita back to AD 1; the Barro-Lee database of educational attainment, back to 1820 and projected forward to 2040; and the data and demographic projections of the United Nations Population Division back to 1950 and projected forward to 2100.

At my first thesis defense in January 2022, Dr. Baritz called me to task for including the term"money-making," which like Aristotle she describes as "accumulating wealth for its own sake." She suggested not using "Money making animal", but rather "Economising animal" in the title of Chapter 3, thereby describing the "*oikonomia*" art of economics and finance, and pointing at the unnatural features of *chrematistics or crematicos*.

I responded, "I'm afraid that "'economizing' doesn't work as an adjective modifying 'economy'"—paralleling the terms personal, domestic and political economy since the phrase 'economizing economy' would be redundant. "

I suggested that a different reformulation--"money-*using* animal"-- satisfies what is valid in Dr. Baritz's objection,

without dropping the monetary indicator, which I have found extremely valuable.

As Augustine noted, money is used in two different kinds of transactions—"sale or gift."1 But only the sale– exchange--results in "money-making"; gifts represent a redistribution rather than an acquisition of wealth, and if population is stable, total lifetime gifts ultimately match and are financed by total money-making. If the miser donated part of his money, he would no longer ber a miser or entirely selfish. Money-making per se is not morally objectionable, but by itself it *is* morally one-sided,

¹ Augustine, *On Free Will*, in *Augustine: Earlier Writings* [AD 396–97], edited by John H. S. Burleigh (Philadelphia: Westminster Press, 1953), 131.

whereas money-*using* is morally two-sided. Hence my reformulation satisfies De. Baritz's initial objection.

Dr. Baritz also objected to my saying ting that "There is no significant difference on economic theory between Catholics and Protestants after the Reformation." I responded that I am far from the first to note "the effect of the AAAs on Protestant economic theory." In addition to the many "Protestant Scholastics" listed by Joseph Schumpeter2, historian of economics Odd Langholm added Philip Melanchthon (1497–1560), and actually called Johannes Crell (1590-1633) "a Thomist of the German Protestant branch." Though Dr. Baritz implied that all economic Thomists must have been Roman

² Hugo Grotius (1583-1645), Samuel Pufendorf (1632-98), John Locke (1632-1704), and Christian Thomasius (1655-1728), Joseph Schumpeter, *History of Economic Analysis*, edited from manuscript by Elizabeth Boody Schumpeter (New York: Oxford University Press, 1954). Catholics, I think the historical evidence to the contrary seems quite clear.

Dr. Kerekes raised a different set of concerns and objections. He asked how I got from Aristotle to the Cobb-Douglas function. I conceded that the number of references to Cobb-Douglas equations may have seemed like overkill on my part. I view the Cobb-Douglas formula essentially as an economical notation which permits me to express three of the four elements of scholastic economic theory with a single kind of equation, rather than several, as in my earlier book, Redeeming Economics. Dr. Kerekes's concern may be addressed merely by omitting one or more of the superfluous notes in my earlier book, and any related text. Both approaches seem to work

empirically, but the equations in this thesis are simpler, and perhapa even more elegant.

Dr. Kerekes raised a different set of concerns and objections. He asked how I got from Aristotle to the Cobb-Douglas function. I conceded that the number of references to Cobb-Douglas equations may have been overkill on my part. I view it essentially as an economical notation which permitted me to express three of the four elements of scholastic economic theory in a single equation, rather than several, as in my earlier book, *Redeeming Economics*. It seems that this concern may be addressed merely by omitting one or more of the superfluous notes and any related text.

Dr. Kerekes' second set of concerns was inspired, he said, by the writings of the Austrian economist Friedrich von Hayek. 'For example, it is not certain that Hayek, Amartya Sen, Stiglitz or the representatives of environmental economics and ecological economics fit into the Neoclassical. And he expressed skepticism about my claim that by combining the share of population with tertiary education from the Barro-Lee database with the Net Reproduction Rate from the UN data, the HFI can be used to project real GDP about two to three decades ahead."'

In response I offered two observations. First, the projections in question are not unreasonable, because they are conditional: *If the* long-term population projections of the UN Population Division are correct, *and* the shares of the population with tertiary education projected by the Barro-Lee database are correct, *then* potential real GDP will approximate its long-term relationship to these two variables. For illustration I offered slides for Brazil,

Hungary and the United States which I used at the November 2021 doctoral conference. The quality of the fitted values differs by country, with the best projections for the United States, Hungary the worst and Brazil in between. But the projections in all three cases seem plausible and useful.

Second, one great advantage of my approach is to identify the Scholastic, Classical, Neoclassical and Neoscholastic theories objectively, by their logical and mathematical structures. On this basis, Hayek's Austrian School is decidedly Neoclassical, because it contains utility and production functions and an equation expressing the equilibrium conditions, but no distribution function, which is common to both the Scholastic and Neoscholastic economic theories.

Finally, there were several formal shortcomings in the initial thesis proposal which were noted by Drs. Baritz and Kerekes. Many of these resulted from the fact that my copy of the Microsoft Word program was corrupt, which played havoc especially with chapter headings and pagination and consumed time I had hoped to devote to correcting the manuscript. Dr. Kerekes helpfully summarized the necessary changes.3 He also recommended transforming all endnotes to footnotes.

³ "These include the need for proper references to the literature, without which it is not clear what the candidate has thought and what he has taken from the literature. Endnotes should be converted into footnotes. Missing items should be added to the bibliography. It would be advisable to rewrite chapter 0. It would be useful to formulate the research questions and the main hypotheses of the applicant in the introduction (Chapter 0). A summary of the candidate's own scientific results should be included at the end of the thesis, which would greatly facilitate the work of the referees and the defence committee in the public defence."

Like him, I find footnotes more friendly to the reader. I was overruled on this point by the publisher of *Redeeming* Economics. But I have converted all endnotes in my final thesis to footnote . Also, I followed Dr. Kerekes's recommendations of summarizing my empirical findings. Karoly Mike asked what my most distinctive contribution is. I responded that it is restoring the "final distribution function" to its place at the center of an updated Scholastic economic theory. The subtitle of my first book is "Restoring the Missing Element." "The Missing Element "is the Scholastic Final Distribution Function," which describes the personal and collective gifts which we make to each other (or conversely the crimes we inflict by depriving others of what is theirs).

Prof. Dr. Szerenyi asked why I chose those particular countries for inclusion in the HFI. Prof. Dr. Zoltan Szanto

and I wrote a joint article in *World Futures* which compared the Social Futuring Index (SFI) and the Human Flourishing Index (HFI). Essentially, I wanted to the HFI to be applicable to the broadest possible range of countries.

The SFI has complete data series for all 36 member countries of the OECD, which comprise about one-sixth of the world's population and produce about one-half of the world's GDP. The HFI has been calculated for 8 of the world's 10 most populous countries plus 31 of the 36member OECD. (Since two of the largest 10 are OECD members, this leaves a net total of 44 countries. But five smaller OECD countries--Austria, Belgium, Denmark, Luxembourg, and the United Kingdom, comprising just over 1% of the world's population--must be omitted from the HFI calculations due to missing data series. Besides 31 of 36 OECD countries, the HFI is also calculated for eight of the world's 10 most populous countries, which comprise just over half of the world's population. As a result, the HFI covers 39 countries, which comprise about 67% of the world's population and produce about 80% of the world's GDP.

I am grateful to Drs. Baritz, Kerekes. Mike and Szerenyi for their valuable comments and their confidence that, suitably modified, my final PhD thesis ultimately will be satisfactory. References

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