

GOD'S ECONOMISTS: ECONOMIC THOUGHT IN THE SIXTEENTH CENTURY

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*Discussions of the history of modern economic thought usually begin in 1776, with Adam Smith's *Wealth of Nations*. However in this essay, Patrick McDonagh traces the origins of the Quantity Theory of Money, the Subjective Theory of Value and Purchasing Power Parity back to 16th Century Europe and in particular to the School of Salamanca in Spain. He describes how conditions at the time led to these discoveries and emphasises the importance of further research on this period.*

Introduction

The sixteenth century was a momentous period in the history of early modern Europe, and indeed the world. It was an era characterised by the European exploration of the world, led by figures such as Vespucci and Vasco de Gama, and it saw the creation of a truly global economy. The discovery of gold and silver in the America witnessed the vast exploitation of these resources. As a result, huge quantities of these precious metals were sent back to Europe. This dramatic increase in the money supply led to unprecedented inflation that ruined the livelihoods of many. It exacerbated economic difficulties and fuelled religious turmoil. On the other hand, the period saw a flowering of economic thought.

The 16th century contribution to the development of economics is often forgotten, in particular the efforts of the School of Salamanca in Spain which made critical breakthroughs in the growth of ideas such as the quantity theory of money. That this area has been so overlooked is strange, considering that in this period we see the beginnings of a world economy and phenomena such as global capital flows in money. The literature on this topic is sparse. Only Grice-Hutchinson has written on this area, yet her most notable work on the topic is mostly comprised of translations of the work of these scholars. This essay will analyse the contribution this school made in several areas of economics, notably the quantity theory, and shall attempt to reassert the importance of the School of Salamanca to the development of the field of economics.

Quantity Theory of Money

The seemingly endless supply of silver coming from the Americas into Europe led to a rise of prices which was unprecedented for these times. In England alone 'the cost of living increased by a factor of seven ... around 2 per cent per year' (Ferguson, 2008:27). In Spain - the main entry point for the precious metals being Seville - prices also rose substantially. Such circumstances made the intellectual climate fertile for explorations into why this was happening. Jean Bodin, in 1568, claimed he was the first to make the connection between the rise of prices and the inflow of precious metal, a perhaps primitive but evident account of the quantity theory of money. He was a prominent thinker known for his political theories. Bodin noted that the price of goods and lands had risen and attributed this to the abundance of gold and silver.

In spite of his claim about being the first to notice this connection, Bodin was in fact pre-dated by twelve years by a towering intellectual from Spain named Martín De Azpilcueta Navarro. Navarro was a great cleric scholar who made contributions to canon law, and to ideas about usury, and 'produced the clear statement that the high cost of living was a result of the import of treasure.' (Grice-Hutchinson, 1952:52). In his own words he states that the rise of prices was the result of the great quantity of money due to 'the discovery of the Indies, which flooded the country with gold and silver' (Navarro's *Commentario resolutorio de usuris* in Grice-Hutchinson, 1952:95) Navarro's analysis rested on a very good understanding of supply and demand which extended to money as well. He states:

'that all merchandise becomes dearer when it is in great demand and short supply, and that money, in so far as it may be sold, bartered, or exchanged by some other form of contract, is merchandise and therefore also becomes dearer when it is in great demand and short supply.' (Navarro's *Commentario resolutorio de usuris* in Grice-Hutchinson, 1952:94).

Such a statement is not entirely alien to one made by Milton Friedman, remarking that the quantity theory of money is 'a theory of the demand for money' (Friedman, 1956: 4). Navarro parallels this remark when he states 'that money is worth more when and where it is scarce than where it is abundant' (Navarro's *Commentario resolutorio de usuris* in Grice-Hutchinson, 1952:94). He realised that the increase in prices was not due to other goods becoming more expensive, rather that the money used to purchase those goods had become less valuable due to the great abundance of precious metals. Furthermore, it is understandable why Navarro and the Spanish school discovered this relation first, as Spain was the entry point of the precious metals. As the wealth was transmitted across Europe, with the resultant inflation, the idea of the Quantity Theory was discovered

in other areas such as in France.

Both Bodin and Navarro, then, noted that the price of goods and lands had risen and attributed this to the abundance of gold and silver. One crucial difference though, with regards to Bodin's work *The Responses to the Paradoxes of Maltestroit*, was that it included 'factual discussions of monetary conditions ... discuss [sic] with some authority how trade caused money to flow from one country to another' (Backhouse, 2002:62). This is a key reason for Jean Bodin's greater popularity and fame in Europe, both at the time and in the succeeding centuries. Bodin's analysis, though it may seem like crude monetarism today, was at the time a revolutionary development in the field of economics. Scholars in Western Europe at this point had shown little appreciation for the finer details of monetary thought, beyond perhaps ensuring that coinage was of high quality.

Bodin claimed that the rise of prices was due to 'the abundance of gold and silver' (Bodin, 1997:59) and strengthened this argument with recourse to historical example and the use of figures. Bodin and Navarro both independently discovered this relation. Bodin realised that the crisis was due to a combination of other factors as well, such as the 'measureless growth which has taken place in the population' (Bodin, 1997:65). Neither Bodin nor Navarro 'argued that American silver was the sole cause of the price rise' (Elliot, 1971:63). This crisis was due to a combination of factors of which an inflow of precious metals was but one - albeit an important one. Bodin's views, unlike Navarro's, would prove inspirational to later economists and lead to the general dissemination of the basic principles of the quantity theory of money.

Subjective Theory of Value

The School of Salamanca, as a rule, showed a tendency to support a subjective theory of value. This viewpoint is perhaps best elucidated by Luis Saravia de la Calle. Saravia, according to Grice-Hutchinson, notably 'denies, with considerable vehemence that cost-of-production can play any part at all in the determination of price' (Grice-Hutchinson, 1952:48). This viewpoint is one coloured by the author's position as a cleric. It was a standard trope of this period, rather like today, to view the business man as inherently greedy and evil. Persons like Saravia henceforth viewed with suspicion any analysis of value which would allow merchants to claim they were recouping costs as it was believed they would use this excuse to charge ever higher prices. Saravia's is an extreme position of this view, yet one that explicates contemporary development on the theory of value. In his own words, Saravia remarks that the value of a good is determined by:

'the particular circumstances and manner of the sale, the abundance of goods and money, the number of buyers and sellers, the difficulty of procuring the goods, and the benefit to be enjoyed by their use, according to the judgement of an honest man'

(Saravia's Instrucción de Mercaderes in Grice-Hutchinson, 1952:79).

Saravia in his work expounds this analysis through deft use of examples to highlight what are, in essence, the principles of supply and demand. His view rests on the case that he, much like the rest of his school, viewed the average citizen, usually a poor one, as a consumer rather than a producer. This difference in the conception of people marks the bent towards a subjective theory, in order to protect the poor from grasping businessmen. Such a contemporary dislike was preceded as:

'monopolists did raise the price of the commodities they controlled. Landlords did raise rents and, in consequence, the cost of agricultural production and prices'
(Koenigsberger and Mosse, 1973:23).

The subjective theory seemed more morally just than a cost-of-production theory of value. Furthermore, it entails as a corollary the role of the market in dictating price. This was a radical view to hold in a period characterised by mercantilism and ever growing stringent price regulations. Their work on the theory of value, led the School of Salamanca to call for the market to dictate the price of the vast majority of goods except for what they saw as necessities such as bread and meat. The clerical training and background of these scholars such as Saravia led to a fascinating development within economic thought not paralleled anywhere else in Europe at this time. Saravia, and his fellow cleric-scholars, moved beyond the cost-of-production theory of value to create a truly original understanding on what decides the value of goods.

Purchasing Power Parity Theory of Exchange

One of the most truly original contributions of the School of Salamanca to economic thought is to develop the foundations of what is now known today as the purchasing power parity theory of exchange. This theory states simply that 'the exchange rate between two currencies over any period of time is determined by the change in the two countries relative price levels' (Dornbush 1985:3). The context for this development was the scale and size of the Hapsburg-Spanish Empire which straddled across Europe, comprising Spain, the Low Countries, the German Empire and other smaller territories. Due to this size, the emperor in this period, Charles V, and later King Philip II were always at war in different parts of Europe and needed to send funds to these diverse corners to maintain the military forces. The influx of precious metals meant that there were 'violent fluctuations' (Glamann 1981:509) in the value of national currencies. This chaos was combined with the need to fund the wars of the Hapsburg monarchy. The result of this maelstrom of political and economic crisis was to lead to a realisation that the same nominal figure

of money, could have different value and demand in different parts of Europe despite not changing in metallic content. As Grice-Hutchinson says:

'when money was sent from foreign countries to Spain a considerably larger sum was usually repaid in Spain than had been delivered abroad, but when money was sent in the opposite direction, from Spain to places abroad, only a slightly larger sum, and sometimes even a smaller one, was repaid abroad than had been delivered in Spain' (Grice-Hutchinson, 1952:54).

This sparked a great swelling of work on this topic by cleric-scholars such as Navarro, De Soto, Mercado and De Molina. The works of these scholars on this topic often show the influence of the subjective theory of value which can be illustrated by Mercado who writes:

*'the first is that modern exchange transactions are founded on the diversity in the estimation of money. It is understood that this estimation is to be universal throughout the whole of a kingdom, not peculiar to two or three or five needy persons in a town. Thus we see that in all Flanders and in all Rome money is more highly esteemed than in all Seville, and in Seville more than in the Indies, and in the Indies more than in New Spain, and in New Spain more than in Peru...from Seville on Medina, Lisbon, and any other place, the thing that causes a rise or fall in the market is the abundance or scarcity of silver. If it is abundant the rate is low, and, if scarce, high. Clearly, then, abundance or scarcity causes money to be little or greatly esteemed. Hence, if in Seville at the present moment money is esteemed more highly than it will be in a month's time, this is simply because in some way the market will have been altered and freshly supplied, and, since money will be more abundant, its estimation will fall. Estimation is and always will be the basis of such transactions' (Mercado's *Tratos y Contratos de Mercaderes* in Grice-Hutchinson, 1952:99-100).*

Mercado goes on to illustrate these points with the use of examples, but the message is clear; money itself is a commodity and its value will rise and fall depending on its external environment. This reflects the role of the exchange rate in adjusting both goods and money to their worth, based on supply and demand. Hence, goods across the world will have the same value but the value of the coinage used to pay for it depends on the scarcity or abundance of precious metals. This is a useful analysis considering the myriad of currencies present in Europe at this point of time, all with differing gold or silver content. The scholars of Salamanca were able to recognise it and consider why goods differed in price in different locations even if there was no discernible difference in the actual goods themselves.

The differing price was the result of local subjective values of coinage. This line of thought helps to highlight the interconnectivity of the differing areas of economics these cleric-scholars worked on, the views it created, and how they contributed to an analysis of different problems.

Conclusion

The sixteenth century witnessed a radical development in economic thought which has hitherto been given scant analysis and study. Such a situation is unfortunate as it limits our understanding of the growth of the field of economics. This period expounded the first principles of economic ideas such as the quantity theory of money. The School of Salamanca spearheaded this revolutionary progress. These cleric-scholars, trained in the latest developments of scholastic thought, were able to bring this mode of thinking away from its traditional theological focus to concentrate it on economic life. They were aided by the circumstances in which they lived, with the great inflow of precious metals from the Spanish colonies in the Americas and the presence of a large Spanish Empire across Europe which necessitated the use of exchanges to send off money to regional armies. These circumstances provided the external environment which sparked the curiosity of these great thinkers as they sought to explain the economic world around them. The period saw the birth of a rudimentary quantity theory of money, which helped to partly explain the Price Revolution of the sixteenth century, along with other contributory factors such as population growth, urbanisation and an inelastic food supply.

These scholars also contributed to a historically unparalleled theoretical understanding of what we now called the purchasing power parity theory of exchange. Scholars such as Navarro, Bodin, and Mercado were brilliant economic thinkers who made original advances that greatly enriched the field of economics. To further what was in their minds God's Work, these priestly economists brought about an economic revolution in thought, often forgotten today. In an age of political, religious and economic chaos they sought to understand the forces underpinning their society. The School of Salamanca, though barely known today, are a crucial focal point out of which economics grew. This topic is inadequately researched. Areas that would require further research are topics such as the transmissions of their ideas, and its relation with the reformation and counter-reformation, as well as more work on the subjects discussed within this essay. These sketches require substantial work in each particular area, but have been briefly discussed in this essay to illustrate the great advances these cleric-scholars made, advances which should no longer be overlooked today in the history of economic thought.

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