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Indian Antecedents to Modern Economic Thought

Satish Y. Deodhar*

Abstract

The history of economic thought begins with salutations to Greek writings of Aristotle and Plato. While the fourth century BCE Greek writings may have been the fount of modern economic thought that emerged in Europe starting 18th century CE, there has been a general unawareness of the economic thinking that emanated from the Indian subcontinent. Pre-classical thoughts that had appeared in *Vedas* dating a millennium prior to the Greek writings had culminated in their comprehensive coverage in the treatise *Arthashastra* by Kautilya in the fourth century BCE. In this context, the paper outlines various ancient Indian texts and the economic thoughts expressed therein, delves on the reasons why they have gone unnoticed, brings to the fore the economic policies laid down by Kautilya, shows how these policies exemplify pragmatic application of the modern economic principles, and brings out in bold relief, the contribution of this Pre-Classical literature in the history of economic thought.

Key Words: Ancient Indian Texts, Arthashastra, Economic History, History of Economic Thought, India, Kautilya, Political Economy, Sanskrit, Tamil, Vedas

JEL Classification: B11, B15

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Indian Antecedents to Modern Economic Thought

1. Introduction

Economics is a relatively young science as compared to other physical sciences. Throughout much of the period of Roman Empire, the Dark Ages in its aftermath (TAE, 1883), and the spread of Inquisition; no significant contribution was made to the subject of economics in the western world. As described by Ingram (1919), the long period was characterised by Roman military ambitions, slavery ascending into serfdom, rise of religious crusades, and, lack of an energetic exercise in economic thought. Europe had to wait almost for millennium and half until renaissance, protestant reformation, and enlightenment, in that broad order, created a congenial environment for the new thinking (Weber, 1905). It was in this new environment that in the late eighteenth century Adam Smith (1776) wrote his treatise, *An Inquiry into the Nature and Causes of the Wealth of Nations*. In this treatise, Smith could replace the Greco-Christian doctrines with a system that combined moral living and reasonable pursuit of material desires (Fitzgibbons, 1995). Of course, Smith and his close contemporaries – philosophers and thinkers of political economy, did not begin to ponder over their new economics, now christened as Classical Economics, out of vacuum. Looking beyond mercantilism and the dark ages, the fount of their inspiration was the pre-Roman Greek thinkers of Europe such as Aristotle, Socrates, and Plato who wrote on political economy matters. The word ‘economics’ comes from the ancient Greek word *oikonomia*, where *oikos* means house and *nomos* means custom or law (Eatwell, Milgate, and Newmann; 1987). Circa fourth century BCE, Aristotle wrote the treatise titled *Oikonomiokos*, which roughly translates into English as the rules of or the management of household. Smith was particularly impressed by Aristotle’s defence of private property and his critical view on Plato’s communism.

The continuity of this ancient western legacy, albeit with a millennial gap, gets reflected in current economic writings. For starters, textbooks on principles of economics introduce the prefixes *micro* and *macro* referring to their Greek meanings, small and large, respectively. Importantly, literature on development of economic thought acknowledges the contributions of the Greek scholars, and justifiably so. For example, if Cossa (1893) and Ingram (1919)

introduce the economic ideas of the Greeks in about ten pages, Haney (1911) spends an entire chapter on Greek contribution. Similarly, Roll (1973) devotes an entire section on Greek antecedents in Chapter I of his book titled, *A History of Economic Thought*. In recent times, Mark Skousen (2016) makes reference to Aristotle and Plato in Chapter I of his book titled, *The Making of Modern Economics*. References to ancient non-western antecedents, however, perhaps with the exception of Haney, do not find a mention in the literature on history of economic thought. This is either because the references to non-western contributions were not available; and/or the development of those antecedents happened independently and their link and continuity to modern economic literature did not exist; or simply, the contributions did not exist. Perhaps, the perception of the latter kind made Skousen write, that until the publication of Smith's treatise, "six thousand years of recorded history had passed without a seminal work on the subject that dominated every waking hour of practically every human being." This sweeping impression may read a bit exaggerated, once we consider some of the ancient writings originating from the Indian subcontinent.

Spengler (1971) has covered the Indian literature spanning from the ancient and the medieval to the colonial and the modern times; however, it gets spread thinly over the entire period and the work is based on secondary sources alone. Similarly, in the recent past, Waldauer, Zahka, and Pal (1996); Sihag (2009); and Skare (2013) have also contributed to the literature. However, their work focuses only on a particular treatise, *Arthashastra* by Kautilya, and is based on secondary sources. In these studies, *Arthashastra* gets treated as a one-off text without juxtaposing it as a seminal improvement and collation of previous works. These studies do not conjecture the reasons as to why ancient Indian literature on economic matters got overlooked and how the western world got exposed only to the otherworldly features of Indian thought. I address these issues in this paper. Moreover, this paper takes a comprehensive perspective on Indian economic thought leading upto Kautilya, highlighting the broader spread of economic writings prior to Kautilya as also the political economy aspects espoused by Kautilya. I focus attention not just on secondary sources but on quite a few original sources and their English translations. And, in doing so, wherever possible, I give parallel references to occidental thinkers of the respective times. Towards this end, in Section 2, I introduce the ancient Indian texts in general, refer to the literature concerning economic aspects in particular, and provide reasons for the inattention it received. Thereafter, in the Section 3, I give examples of what I call Pre-Classical economic thought

emanating from some of the ancient Indian texts dating back to 1500 BCE, and, in Section 4, I bring to the fore, the economic thought and policies as prescribed in the fourth century BCE treatise on political economy – Arthashastra, by Kautilya. Finally, concluding comments are made in Section 5.

2. Ancient Indian Literature

Although separated in time and space, and against popular perception, practical observations, societal laws, and thoughts on economic matters were being written in ancient Indian literature as much as the otherworldly concerns. Some of this literature, composed mostly in Sanskrit, spanned beyond a couple of millennia BCE. For example, Rig-Veda, one of the premier religious texts originating in India dates back at least to 1500 BCE (Violatti, 2013). For want of good writing materials and its durability in those times, such texts were composed using terse metrical verses and passed-on to future generations through memorization. In fact, there are four different kinds of Vedas and most were orally composed in the third millennia BCE (Vinod, 2012), before being written down between 1500 BCE to 600 BCE. This literature is referred to as *Apaurusheya* and *Shruti* literature, which means that there is no single author to these scriptures and the compositions are a collective knowledge of many sages as was revealed to and by them. Similarly, the Indian epics *Ramayana* and *Mahabharata* were composed prior to 500 BCE. Moreover, there are other texts referred to as *Dharmashastras*, which are considered as *Smritis*, i.e., those that are written by individuals to serve as manuals of behaviour for the society. About six Dharmashastras are known to have been written over a period from 600 BCE to 200 AD, the latest one being called as the *Manu Smriti*. While Vedas are the sacred texts, Dharmashastras were written as guides for the smooth functioning of society. If there was any conflict between the two, Vedas would have to prevail (Radhakrishnan, 1948). Furthermore, there are both theistic and non-theistic treatises which focus on *Anvikshiki*, i.e., the philosophical expositions on logic, reason, and inquiry of the soul (Vidyabhushan, 1921). These include six theistic *Darshanas* (Systems) and five non-theistic ones including Buddhist and Jain schools of thought. And, finally, there was a yet another text called Arthashastra authored by Kautilya circa 4th century BCE. Arthashastra was written as a treatise for ideal functioning of the economy, state administration, and the conduct of the ruler. Kautilya also

refers to a few earlier texts from where he had improvised some of the ideas in his treatise (Kangle, 1965).

Existence of such literature in the Indian subcontinent should not be surprising, for there existed a vibrant social and economic life in this part of the world at least a millennium prior to the Greek period. It must be remembered that India's Sarasvati-Sindhu civilization, which flourished in the regions of Punjab, Sindh, and Gujarat was at its peak between 2300 BCE to 1700 BCE¹. Large numbers of seals excavated in this archaeological region were found attached to jars, baskets, and containers. They are the earliest known examples of brands and trademarks by merchants who would ship goods to Mesopotamian sites through Persian Gulf (Moore and Reid, 2008). One also finds that bricks were made with a standard length to width to height ratio of 4:2:1 (Possehl, 2002). Further, cost and quality considerations were thought through in construction activity. For example, cost-effective mud-bricks with straws were used in homes for thermal insulation and sound isolation, and, expensive baked-bricks with high compressive strength and water resistance were used for drainage system, baths, citadels, city walls, and granaries (Khan and Lemmen, 2014). This civilization had a well-organized urban economy with cities which were more scientifically planned than the contemporary Mesopotamian cities (Spengler, 1971, p. 32). The above features show that the society had carved out institutional mechanisms for standards, intellectual property rights, and welfare-augmenting economic decision making for city planning.

Prior to the Sarasvati-Sindhu epoch and thereafter, India has had a continuous and uninterrupted existence of social, religious and economic life, a phenomenon which finds few parallels elsewhere. While world population was about 100 million in 1000 BCE, 3/5th of it lived in Asia with an overwhelming number in the Indian subcontinent itself. Angus Maddison's (2003) work shows that by the 1st millennia CE, India's GDP had acquired about 1/3rd to 1/2 of the total world GDP. The Golden Age of India had reached its peak during the Gupta dynasty circa 6th century. Thereafter, India witnessed invasions by Huns, the barbarian hordes from Central Asia. They ransacked and destroyed Takshashila, one of the oldest and thriving universities in the North-western part of India (Marshall, 1918). From thereon, India had its share of the Dark Ages. Many Sanskrit texts had gone into oblivion and the decline continued with the turmoil caused by the Muslim conquests and the capture of the Indian

¹ Sarasvati-Sindhu civilization has been variously called as Indus Valley Culture, Indus Civilization, and Harappan Civilization. It flourished along the now-extinct river Sarasvati and the existing river Sindhu (Indus).

polity by the British in the eighteenth century. For example, circa 1193 CE, Nalanda university complex in Eastern India, which was founded by the Gupta dynasty circa 5th century CE, was completely burned down by the invading Muslim general, Bakhtiyar Khilji (Allen, 2002)². Fate of other seats of learning such as Vikramasila, Jagaddala, and Odantapuri was sealed in the same fashion (Ambedkar, p. 232, 2014). While the invading Islamic rulers employed Indian educated class for administrative purposes, the Islamic writers did not engage themselves with the Indian literature concerning economic matters (Spengler, 1971, p. 159). Arab travellers such as Alberuni and others carried the wealth of Indian mathematical treatises to the West; however, they neglected economic literature of the Indians.

The heightened exposure to India after the firm consolidation of British rule did result in translations of Sanskrit texts by scholars such as Max Muller and a few others who chanced upon ancient texts. In fact, Arthashastra was discovered only in the early part of the 20th century, in the possession of a pundit from Tanjavur, Tamil Nadu, a region that was left mostly unharmed by the Muslim conquests. It was transcribed and published in English in 1915 by Dr. R. Shamasastri of the Mysore Oriental Library, and, it took several more decades before it became known to rest of the world. The Indian texts referred to earlier in this section, include contemplative thoughts of sages and folk wisdom, which are not restricted to religious practices alone. They encompass various topics ranging from flora and fauna to philosophy; and, music and mythology to money matters. And, within the realm of religion and philosophy, there are varied schools of thought ranging from ones emphasizing otherworldly goals, others promoting righteous positive actions, and still a few others openly provoking atheist arguments. However, with limited exposure to Sanskrit texts, belated translations, and the pejorative attitude towards the colonized society, western scholars' attention got focused only on the otherworldly stream of Indian thought.

For example, James Mill (1823), a liberal utilitarian who later worked for East India Company, perceived nothing worthwhile in Indian culture and Sanskrit literature! He opined that Indians (*Hindoos*) almost always were penurious and ascetic. Further, the wider acceptance in the later 19th century of what came to be known as the 'race science' also led to pejorative opinion about Sanskrit literature. For example, Sanskrit dramas such as those of

² More than 150 years prior to burning of Nalanda, Mahmud of Ghazni had already raided the flourishing port city Veraval in Gujarat, destroying the iconic Somanath Temple and braking the presiding deity (Thapar, 2013).

the playwright Kalidas, which brought out idyllic picture of closeness to nature, were touted as being at the foot of the evolutionary ladder (Hansen, 1997; Thapar, 2013). In the realm of economics, the situation turned out to be similar. Haney (1911) wrote a book, also titled *History of Economic Thought*, where he dedicated a separate chapter for Oriental economic thought. But he referred mostly to a select Dharmashastras ignoring many earlier original texts, both secular and religious. He concluded that among people of the East, moral or religious codes have usually played a greater part in shaping their thought, and that prevented them from striving eagerly for industrial progress. This perception got carried forward to other western scholars as well. For example, Schweitzer (1936), Weber (1958), and Kapp (1963) to name a few, focused only on the otherworldly stream of Indian thought. They interpreted that the otherworldly thought of Indians was instrumental in denial of economic betterment and alleviation of poverty in India.

And, the hysteresis effect continued in the post-colonial times as well. For example, the abysmal slow GDP growth in the first three decades of India's independence was pejoratively called as the Hindu Rate of Growth by the economist Raj Krishna, who was no ideological free marketer (Ahluwalia, 1995). This was an innuendo, perpetuating the perception that ancient Indian antecedents were the culprit for the slow GDP growth. Quite contrary, the slow GDP growth should have been termed as the Socialist Rate of Growth, for it was the all-pervasive, state-controlled, command economy that had shackled the Indian economy then (Virmani, 2004)³. Thus, an inordinately prolonged period with limited access to Sanskrit literature in general, scant exposure to literature on economic matters in particular, belated translations of the texts, a blinkered attention focussed only on the otherworldly stream of thought, and a pejoratively obscuring description of India's low GDP growth in the early-independence period had contributed to the inattention given to ancient Indian view on economic matters. Hence, Roll (1973) fails to make any mention of earliest Indian economic thought, which predates the western tradition by a millennium or more. This, of course, provides an opportunity to bring to the fore, the Pre-Classical economic thought emanating from the Indian subcontinent.

³ To paraphrase Viramani, phrases such as Hindu Rate of Growth may have exposed obscure economic data to a wider audience; however, they obscured reality by focussing attention on the wrong issue. Low growth rate had nothing to do with Hinduism. In fact, he called the 30-year period till 1979 as the Indian-socialist period and identified 15 years from 1965 to 1979 as a period with truly disastrous Indian Socialist Growth Rate (ISGR). India's annual GDP growth rate during this period was one of the lowest in the world at 0.6 per cent per capita.

In what follows, I demonstrate that economic issues were discussed in Indian ancient texts quite a few millennia ago. Of course, the objective here is not to advocate Indian economics as a separate economic thought process. Laws of economics are universal. Economic agents, irrespective of their culture, country, and know-how, would respond to incentives and coercion in almost the same way (Swami, 2012). Perhaps an important distinction one could draw is that while the modern economic theory focuses on pursuit of material and physical pleasures alone as an end in itself, Indian texts have treated economic well-being as one of the important life-objectives. As I refer to in the subsequent sections, Indian texts identify four life-objectives – *Dharma*, *Artha*, *Kama*, and *Moksha*; i.e, righteous conduct, acquisition of wealth, pleasure & love, and salvation. In this paper, of course, my limited task is to focus on the economic antecedents to the modern principles of economics.

3. Early Economic Thought in India

Humans have accumulated economic wisdom over millennia. Of course, one does not expect literature dating back at least three millennia or more to espouse refined and modern economic theories, for both the technological and social context of those periods was far different than what it has been in the 18th to 21st century CE. Nonetheless, guided by their wisdom, the maturity of economic thought that has found expression in ancient Indian writings is worth reviewing. Here I narrate economic ponderings from some of the earliest ancient texts.

3a. Pursuit of Material Desires, Money, and Wealth

Rig-Veda, composed within its 1028 hymns, 10,600 verses, and ten books (*mandalas*) is the world's oldest religious text in continuous use till date (Klostermaier, 1984; Kurtz, 2015). There are many hymns which relate to matters on material prosperity, prices, bargaining, and taxes. For example, Hymn 112 of Book IX (Griffiths, 1886) of the Rig-Veda tells us how we follow our desires and wealth. To paraphrase in short, it reads:

“We all have diverse hopes and plans. We strive for wealth in different ways. We follow our desires like cows follow one after the other. A frog looks forward to a flood, an arrow-smith seeks someone who will pay him in gold, a craftsman seeks something that is to be restored, and a priest seeks worshippers.”

Further, in Hymn 21 of Book II of Rig-Veda, the author requests Indra to provide best of riches, capable minds, pleasant weather, and sweet speech. Yet another Vedic prayer called *Chamakam* (i.e., This & That), repeatedly seeks in a rhythmic tone, material objects, happiness, power, knowledge as also spiritual well-being (Nadkarni, 2012). Similarly, *Panchatantra* by Vishnu Sharma written at around 200 BCE also drives home importance of money motive through his stories of the wise conduct⁴. For example, in one verse Vishnu Sharma describes (Ryder, 1955) and I paraphrase in short:

“A king may scold his servant but he continues to work if he is paid at the end of the day. A calf also deserts the cow when her udder goes dry. Money gets you everything in a flash. Therefore, let the prudent get cash!”

Furthermore, in Shanti Parva (Book XII, Chapter 8) of Mahabharata, after the Great War was won, Arjuna forcefully counsels Yudhiṣṭhira to occupy the throne and give up the thought of becoming a mendicant (Ganguli, 1896-a). Some of his paraphrased arguments are as follows:

“He that would live by mendicancy, cannot, by any act of his, enjoy the good things of the earth. It is seen that a poor man, even when he stands near, is accused falsely. He that has wealth has kinsmen. He that has wealth is regarded as a true man in the world. He that has wealth is regarded as a learned man. If a person, who has no wealth, desires to achieve a particular purpose, he meets with failure. Wealth brings about accessions of wealth, like domesticated elephants are used to capture wild elephants. Religious acts, pleasures, joy, courage, wrath, learning, and sense of dignity, all these proceed from wealth.”

Similarly, in the ancient Tamil treatise *Tirukkural*, written sometime between the 1st and 3rd century BCE, the author Thiruvalluvar underscores the importance of wealth. There are 700 aphorism devoted to the subject of wealth in Book II titled *Porul*. For example, verse 1040 in *Porul* (Pope *et al*, 1886) mentions that the mother earth will laugh at the prospect of those who plead poverty but lead an idle life. Moreover, verse 1036 suggests that if farmers were to give up their dexterous life, even the ascetics will have hard time to live.

India has had a wide range of philosophical traditions including the atheist school of thought. Billington (1997) affirms that in the sixth century BCE, a philosopher named Charvak

⁴ Composed in Kashmir about two centuries after Kautilya, Vishnu Sharma’s collection of fables reflects influence of Arthashastra throughout the text (Ruben, 1959).

founded and advocated the materialist school called *Lokayat*. Charvak is famously quoted as saying:

“As long as you live, live happily. Drink *ghee* (clarified butter) even if you may have to borrow money. For, once consigned to flames (after death), who can return (to enjoy life)?”

3b. Balancing Baser, Refined, and Otherworldly Goals

At another place in Panchatantra, Vishnu Sharma remarks that unless man’s minimal material needs are fulfilled, his higher aspirations cannot be realized. I paraphrase what he wrote (Ryder, 1955) in short:

“Until a mortal’s belly-pot is full, he does not care for love or music, wit or shame, body’s care or scholar’s name, virtue or social charm, godlike wisdom or youthful beauty.”

Basham (1954, p. 125) also corroborates that in the early Indian literature poverty was looked upon as ‘living death’ and worldly wealth was considered morally desirable. Thus, the antecedents of the literature on ‘culture of poverty’ by Lewis (1959) and others had appeared in the Indian literature almost twenty-two centuries earlier.

Similarly, Chapter 40 of the *Yajur-Veda*, which is also known as *Isha Upanishad*, captures the dialectics between householder life and spiritual life. While it talks of unity of individual soul and the universal one, it also emphasizes that to live a life of hundred years one must perform one’s household duties. It also underlines the concept of property right by saying that one must not appropriate others’ wealth (Bokare, 2009). A millennium later, the saints of the *Bhakti* movement did not hesitate to prioritize devotion to work over devotion to god. And this was not surprising, for quite a few saint-poets belonged to the working classes (Nadkarni, 2007).

3c. Market Failure and Charity

As described above, acquisition of material well-being was considered important in ancient Indian literature, and, abject poverty described as living death. In this context, ancient society had also developed a much matured worldview on charity. In modern economic terminology, poverty-reduction is a merit good – a source of market failure where private sector may underprovide it, if left to itself. Almost all ancient Indian texts starting from Rig-Veda talk of charity for the poor. For example, Hymn 117 of the Book X of Rig-Veda states that god has not ordained hunger as a form of death. Death comes in various ways even to a

well-fed person and riches come to her like the rolling of a cartwheel; hence, the rich should give alms to the poor who become her friends in future troubles.

The *Bhagwadgita* (Telang, 1882), or simply Gita, which forms part of the *Bhishma Parva* (Book VI) of Mahabharata goes a step further. It describes right and wrong forms of *daana* (charity) in Hymns 17.20 through 17.22. Charity must be without any expectation of return and this is defined as *saatvikam* (pure/good). If the charity is ego driven and given grudgingly with expectations, it is termed as *rajas* (given to passion), and the one given with contempt, to wrong causes, and at wrong times is termed as *tamas* (ignorant, destructive). Similarly, in the Tamil treatise Thirukkural referred earlier, Tiruvalluvar opines in Chapter 23 that if the power to endure hunger is great, greater still is the power to relieve other's hunger. Much later, in the 14th century, Hemadri, the prime minister of Devagiri court in the Deccan would write a thousand-page compendium on charity titled Daankand (Heime, 2004).

Of course, discussion on charity exists in the West Asian literature as well. In the Jewish religious literature, the *Torah* requires that 10 per cent of a Jew's income must be given as *tzedakah* for righteous deeds or causes (AICE, 2017). These requirements are not charity *per se* but considered as righteous acts, mandated through a religious tax. In the Christian literature too, *Tieth*, or 10 per cent of one's income is to be given away as charity (Knight, 2012). Similarly, in Islam, giving *Zakat*, that is, paying 2.5 per cent of one's wealth every year to the poor is a religious obligation (BBC, 2009). If not codified in a country's law, non-conformance to such mandatory religious obligations is not illegal. In contrast, literature on charity in ancient India invoked economic and ethical arguments alone and did not make it mandatory, either as a religious or a legal requirement. This voluntary nature of charity is best captured by what Alberuni described in his eleventh century book, *Tarikh Al-Hind* (Kegan, 1910). He wrote and I paraphrase:

“There are various opinions on how Indians spent their income after paying taxes. Some apportion one-ninth of their income for alms. Others divide it in four parts – One fourth for usual common expenses, the second for works of a noble mind, the third for alms, and the fourth for being kept in reserve (savings).”

In the context of modern business firms, Mahatma Gandhi called this charity as voluntary trusteeship. Incidentally, only in the very recent past, starting with the fiscal year 2014-15,

Indian government has made corporate charity of 2 per cent of net profit mandatory for certain sections of firms. With this, India has become the only country in the world to enact such legally binding requirement for firms. Such ‘mandatory trusteeship’, however, is an oxymoron, and may have potential to create adverse impact in the market (Deodhar, 2016).

3d. On Price Discovery and Taxes

Hymn 24 of Book IV of the Rig-Veda, invokes basic demand and supply forces, where buyer and seller bargain for a price (Griffith, 1886). Here is the paraphrased narration of the bargain:

“A customer is trying to buy wine (*soma*) and fried barley from a priest as sacrificial offerings to seek Indra’s favour. Customer bids low price and the offerings remain unsold, for priest is not ready to accept low price. The offerings just cannot be sold for a mere price of ten cows. The needy buyer and shrewd seller both milk out the udder (i.e., bargain hard for the price)”

Moreover, in Hymn 173, Book X, there is a reference to taxes (*bali*) and tributes to be paid by the subjects to the king (Chitrav, 1998). This idea got further developed in the Shanti Parva (Book XII) of Mahabharata (Ganguli, 1896-a), where the text refers to judicious actions of the state. Below I paraphrase an original idea that appeared in Hymn 88 of Shanti Parva:

“A king should milk (tax) his kingdom like a bee gathering honey from flowering plants. The king should enhance the (tax) burden on his subjects gradually, like a person gradually increases the burden of a young bullock.”

The first sentence of the quote reminds us of the same view expressed by Jean-Baptiste Colbert (McKechnie, 1896), albeit two millennia later, that the art of taxation consists in so plucking the goose as to procure the largest quantity of feathers with the least possible amount of hissing. The second sentence of the quote, however, must be called as the original version of the modern economic concept of progressive tax structure. And, over the centuries, purpose and effects of such taxation seem to have been understood by men of letters as well. For example, Kalidas, the great Sanskrit playwright had the following to say in his Sanskrit play, Raghuvansham (Rao, 2010) in Chapter 1.18:

“The state collects tax for the greater welfare of its citizens in the same way as the sun evaporates water, only to return it manifold in the form of rain.”

The above simile underlines a general understanding that while government taxes individuals, it has the income-multiplier effect by way of government spending on public goods.

3e. Division of Labour and Distributive Justice

The recognition of division of labour and specialization seems to have emerged towards the last phase of Rig-Veda. What we know as ‘caste’ system today emerged in its original form as the *Varna* system (Nadkarni, 2012). The sacred text Gita referred to in the earlier subsection, has a clear reference to what varna means. In Hymns 4.13 and 18.41 to 18.44, one finds the following description, where Krishna, the speaker, says:

“I created the four divisions of human society based on aptitude and vocation. The division of human labour is based on the qualities inherent in peoples’ nature or their make-up.”

Clearly, the division of people among four varnas; *brahmin*, *kshatriya*, *vaishya*, and *shudra*; i.e., knowledge seeker, warrior, tradesman, and artisan/cultivator, was based on *guna-karma* (aptitude driven vocation) and not birth. There are numerous examples of this in ancient and medieval India⁵. In fact, in Hymn 188 of Shanti Parva (Book XII) of Mahabharata (Ganguli, 1896-a), sage *Bharadwaj* tells sage *Bhrigu*, and I paraphrase:

“All the four orders mingle together and could possess lust, wrath, fear, cupidity, grief, anxiety, hunger, and toil. They also cannot be distinguished from one another, for all emit sweat, urine, faeces, phlegm, bile, and blood. Created (equal) by Brahman, men have, in consequence of their acts, become distributed into different orders.”

Muir (1879) and *Daniélou* (1993) also confirm that both in Shanti Parva and Anushasana Parva (Book XIII of Mahabharata), birth, initiation, descent, and/or bookish knowledge did not decide a person's merit. It is the expressed conduct, qualities and virtues that determined one's merit and there was no superior varna. *Dumont* (1970) and *Olivelle* (1998) also

⁵ Examples where *varna* of a person was starkly different than the latter-day birth-based stereotype of caste, abound in Indian history. The learned Tamil sage Thiruvalluvar, referred earlier in the text, was a weaver by birth. Similarly, celebrated Sanskrit playwright, Kalidas was a hunter by birth and the 18th century warrior, Bajirao I, a Brahmin. Moreover, if Valmiki, the writer of the epic poem Ramayana was a reformed dacoit, the villain of his epic, Ravan, was a Brahmin by birth. Furthermore, the author of the epic, Mahabharata was a son of a fisherwoman; and Hanuman, the god who is worshipped by millions in India, was a forest dweller.

mention that matters related to purity/impurity were individual based irrespective of varna affiliation.

Apart from aptitude and vocational classification, there seemed to be another economic perspective to varna in terms of distribution of power (Swami, 2009). Four sources of power were thought of in ancient India – knowledge, weapons, material wealth, and land. To make sure that there was no monopolization of the sources of power, Vedic sages felt that no varna would have more than one source of power. A brahmin would acquire knowledge but must depend on alms or donations from others. A kshatriya would wield weapons and rule, but had to consult brahmins for policy decisions. A vaishya could earn lot of wealth but received respect in society by voluntary acts of charity. And, a shudra would be a cultivator or artisan and command respect by producing food and artifacts on his land for others. Thus, distributive justice seems to have been attempted by assigning four sources of power to four varnas.

In contrast to varnas, the endogamous *jati* system prevalent in India was not ordained by the Indian sacred texts. *Jati* or what is known as the word ‘caste’ is a recent import. It is a Portuguese word *casta* (Latin *castus*) which means race. The early varna system did not quickly evolve into a caste system (Thapar, 1966). In fact, Ambedkar (2014, p. 287) acknowledges that varna is not a hereditary concept either in status or occupation. He mentions that in the ancient *Gurukul* system, students would leave families to study at the teacher’s residence for about 12 years. Once the learning was completed, the teacher would perform *upanayana* ceremony (commencement) for students and send them out in the world to perform duties as per their acquired varna. However, Dharmashastras such as *Manu Smriti*, which were not the sacred texts like Vedas but were the law-books, caused degeneration of this concept into endogamous groups⁶. *Manu Smriti* made families themselves to perform *upanayana* at an early age of the child as per the father’s varna. This altered the dynamic nature of varna. Further, with low life-expectancy and quick within-family apprenticeship possibilities, varnas tended to become rigid and the incipient traits of caste eventually permeated the guild system. It transformed many guilds into fossilized ‘occupational sub-castes’ (Gopal, 1965).

⁶ While texts like Vedas and Gita are considered sacred and eternal, Dharmashastras are like the constitution, which can be amended over time. Constitution of India today, for example, is India’s latest, modern Dharmashastra, which has nothing do with a particular religion.

Colonial misconceptions only profoundly concretized the perversion of varna. For example, Risley who taught 'race science' in European universities was appointed as the census commissioner in the late nineteenth century British India and he put his value judgements to classify people into different castes (Risley, 1915). His classification and documentation of Indian *jatis* further froze the dynamic quality and mobility among individuals and communities. In fact, there were many *jatis* who straddled between two or more varnas. For example, many soldier communities in South India were also saddle-makers; however, colonial census enumerators placed them into mutually exclusive one caste or the other. Dirks (2008) argues that caste is a modern phenomenon fundamentally transformed by British colonial rule. With it, if some groups were officially criminalized, others were given various degrees of preferential treatment. And, people began to use the frozen documentation to get facilities and funds from British government as a legal right.

Studies also show that one has to make distinction between caste discrimination and caste as a social capital. Caste groupings seem to act as social capital, where trust and clusters of social networking offer effective insurance against vicissitudes of risky businesses and inaccessibility to formal finance. This would have been particularly true in ancient times, where institutions of venture capital, brand building, credit rating, and licensing were either non-existent or not fully matured. In modern times, such institutions correct for the adverse selection (Lemons Principle) problems. Akerlof (1970, pp. 497-98) cites the institution of Managing Agency System of India's colonial period as an example of the operation of the Lemons Principle. The traditional merchant houses, the precursors of the Managing Agency System, were represented by experienced communities such as the Gujaratis, Marwadis, Parsis, and a few others. Invariably, promoters of new businesses would turn to these houses because of their reputation, which would build confidence in the venture and stimulate investment. Propensity for honest dealings would get encouraged when finances were met from within the extended community. This would be particularly true of small and medium enterprises (SMEs) who face constraints on financial access and reputation. The rise of Goundars and Nadars as business communities, and, in the recent past, establishment of Dalit Indian Chamber of Commerce and Industry (DICCI) are examples of non-reservation based success stories of caste groups (Vaidyanathan, 2012). Sociologists Durkheim (1997) and Fukuyama (1996) also make similar arguments on community orientation and trust.

3f. Grasp of Economic Policies of the State

In the Sabha Parva (Book II, Section 5) of Mahabharata, Narada, the Vedic sage who visits the newly anointed king Uddhisthira at his royal place Indraprastha; had quite a few questions to the king about his various duties as a king. Among many other, he asks him about the following economic policies concerning his state (Ganguli, 1896-b):

Narada alerts the king about financial prudence by asking whether or not his expenditures are about $1/4^{\text{th}}$, $1/3^{\text{rd}}$, or at worst $1/2$ of his income and that whether his accountants appraise him on his income and expenditure every forenoon. He wonders if wage payments to artisans are not delayed by more than 4 months and that there are no arrears to payment to soldiers as well. He expects that the king must applaud and reward good work by the artisans. Narada mentions that there are four commercial activities (*Vaarta*), namely, agriculture, trade and commerce, animal husbandry, and lending at interest, that lead to economic welfare of the people. He wonders whether the king ensures that these activities are carried out by honest men. Moreover, he asks whether or not the king helps farmers by extending loans for seedlings at a rate not exceeding $1/4^{\text{th}}$ of the produce. Narada also hopes that since officers are paid for by the taxes collected from the citizens, they must treat merchants coming from faraway places fairly and collect only the just dues from them. Thus, Narada alerts Yudhiṣṭhira about his important role in market facilitation.

Narada also articulates well his concern for public goods when he asks whether or not large water tanks and lakes are constructed at periodic distances to tackle water scarcity in the rain-fed areas of the country, whether he is alert to internal security by chasing robbers and ensuring coordination of officers looking after agriculture, city, citadels, merchants, and law enforcement, and, whether or not the king discharges his duty like a father to take care of the blind, the dumb, the lame, the deformed, the friendless, and the ascetics that have no homes. Moreover, while he considers external security as an important public good, Narada indicates that war should be the last priority (it is very costly) and that the king must first try reconciliation, causing disunion among enemy officers by giving secret expensive gifts, and, employing pressure tactics.

3g. In summary

This section has summarized the narrations of economic statements emanating from ancient Indian texts. These narrations are all about worldly concerns, in contrast to the perceptions that Indians were preoccupied only with otherworldly concerns. The narrations

may appear disjoint, fragmented, and scattered; however, they cover a broad spectrum of economic activities. They include aspects such as pursuit of material well-being, keeping a balance between baser and otherworldly objectives, cognizance of charity as an instrument to address market failure, prudence in collection and use of taxes, bargaining, and verna as a means of division of labour and distributive justice. Moreover, Narada's counsel to the king narrated in the last sub-section suggests that the grasp of the economic policies of the state was also taking shape over the centuries during the 1st millennia BCE. The ideas seem to have been further developed, integrated, and presented with a definite purpose in 4th century BCE by Kautilya in his treatise on political economy, Arthashastra. I take up discussion of that treatise next.

4. Economic Thought and Policies in Arthashastra

“Most statements of fundamental facts acquire importance only by superstructures they are made to bear, and, are commonplace in the absence of such superstructures,” said Schumpeter (1954, p. 54) in his book, History of Economic Analysis. It must be remembered that the economic thoughts I have presented in the earlier section are from literature that probably belongs to a period of both pre-and-post Sarasvati-Sindhu Civilization that flourished more than 2 millennia ago. If this civilization was trading in branded products with Mesopotamians, in later periods it also showed strong cultural and trading relations with the Southeast Asian world, which is known today by countries such as Cambodia and Indonesia to name a few. *Janapadas* (Republics) existed in the Vedic period from about 1200 BCE concluding with the rise of sixteen *Mahajanapadas* (Great Republics) at around 600 BCE (Singh, 2008, p. 261). Advances in metallurgy, mathematics, and grammar were of high order then for that time period. Thus, the economic statements emanating from the ancient texts had a context of the superstructure they were made to bear. Indian thought may have placed less emphasis on unique events due to a belief in cyclical nature of time; however, it had a strong sense of the past, and, its social institutions manifested a remarkable continuity, strongly influenced by a mass of literature from which we have sampled the above examples.

Kautilya's treatise, Arthashastra, is to be viewed in the light of above background. Arthashastra was perhaps a culmination of the economic thoughts that had appeared in sacred and secular texts over the millennia. The objective of the text was to have a manual centred

around maintaining economic and political stability and a centralized administrative system. Sometimes Kautilya is compared with the Italian writer Machiavelli. However, one must remember that Machiavelli wrote *The Prince* almost a millennium after Kautilya and focused his attention solely on advice to the ruler for smooth continuance of his authority. Kautilya, on the other hand, devoted his attention to state administration, advice for smooth continuity of the ruler, as well as economic matters. About the time when Kautilya wrote Arthashastra, he was an advisor to emperor Chandragupta Maurya who had created an empire by defeating the Nanda dynasty in the East and the Greek satraps in the West. Kautilya's treatise, however, was more academic and universal in nature and did not make any specific reference to the historical situation of that period (Kangle, Vol. III, p.273). Spengler also compared Kautilya very favourably to Greek writers. He opined (Spengler; 1971, p. 157):

“It is in the Arthashastra literature that economic discussion was most highly developed, much more fully than one finds it in classical Greek economics.”

4a Kautilya's Definition of Arthashastra

There have been a variety of ways in which economics has been defined. The modern definition of economics revolves around what was suggested by Lionel Robbins (1932). According to him, economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses. Others have added that this behaviour is guided by maximizing objective of consumers and firms. While the modern definition is very sharply focused, it does not capture, though practitioners address them nonetheless, the wider perspectives of economic science such as market failures and welfare policies which have social dimensions. Four decades earlier to Robbins, Marshall (1890) had taken a broader perspective. According to him, Economics was, “A study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of wellbeing.” The ‘wellbeing’ aspect was used by Smith (1776) in a different way almost a century prior to Marshall. And, instead of using the term economics in the introduction to Book IV of *The Wealth of Nations*, he stated:

“Political economy, considered as a branch of the science of a statesman or legislator, proposes two distinct objects: first, to provide a plentiful revenue or subsistence for the people, or more properly to enable them to provide such a revenue or subsistence for themselves; and secondly, to supply the state or commonwealth with revenue sufficient for the public services. It proposes to enrich both the people and the sovereign.”

Clearly, wellbeing or the welfare of the people and the role of the sovereign was highlighted in Smith’s definition of political economy.

Remarkably, two millennia prior to Smith, it was Kautilya who proposed definition of political economy and its real-world applications in his treatise *Arthashastra* (Kangle, 1965). Towards this end, his treatise is divided into books, chapters, and sections (b.c.s.). He informs that his ideas of political economy were based on the synthesis and improvement of the accumulated knowledge received from ancient seers (1.1.1). Kautilya was quite aware of the broader context of sciences within which he had written the treatise. He had identified four sciences, which in his opinion covered all branches of learning known at that time (1.2.1). The first was *Anwikshiki* or the philosophical sciences, both theistic and atheistic, which deal with logic, reason, and the inquiry of the soul (Vidhyabhushan, 1921); the second was *Trayi* or the first three Vedas which invoke the spiritual good (1.3.1); third was *Vaarta* or the economic livelihood which includes agriculture, animal husbandry, and trade and commerce (1.4.1); and the fourth was *Dandaniti* or political administration (1.4.3). Applying means of reasoning and keeping spiritual good in the backdrop, Kautilya attempted synergizing economic wellbeing and political administration in *Arthashastra* (1.2.11). He was convinced that growth of economic activities promoted state treasury (through taxes), which in turn financed internal and external security, and ultimately, resulted in economic welfare (1.4.1-2). Extract of the definition of *Arthashastra* or the political economy, as covered in sections (15.1.1-2), (1.7.6-7) and (1.19.34) of his treatise is as follows:

Sustenance and livelihood of people depends upon wealth which is acquired from natural resources (Earth). Arthashastra is the means of sustainable acquisition of the wealth. Among the three goals of human existence; spiritual good, material wealth, and love & pleasure; acquisition of material wealth is supreme, for the other two are dependent on it. It is the duty of the ruler to ensure *yogakshema*, i.e., the welfare of the people, and, that in the happiness of the subjects lies the happiness of the ruler⁷.

In effect, Kautilya was espousing an objective of the political economy two millennia prior to Smith's definition – Facilitation of the welfare of the people by the state. Raworth (2017) asserts that all the definitions of economics need an update. To her, an economy is like a ringed doughnut. Human deprivation is the hole in the middle and planetary degradation lies beyond the ring. Objective is to stay within the ring, foundation of socio-economic welfare preventing us from slipping into the hole, and, ecological ceiling preventing us from escaping into planetary degradation. Kautilya talks about sustainable acquisition of wealth and welfare of the people which would include ecological balance and socio-economic foundation. However, more than two millennia ago, planetary degradation was certainly not a burning issue then to make any explicit mention. In terms of socio-economic foundation, Kautilya mentions that the ruler must ensure protection of the four-fold classifications of life-stages, life-objectives, and life-occupations of the people; namely, *ashrama*, *purushartha*, and *varna*, respectively. The ashramas include four stages of life, *brahmacharya*, *gruhastha*, *vanaprastha*, and *sanyaas*; i.e., life of a student, a householder, a retired person, and that of renunciation (1.3.9-12). The four purusharthas, are the objectives of *dharma*, *artha*, *kama*, and *moksha*; i.e., righteous conduct, acquisition of wealth, pleasure & love (1.7.4), and salvation. The four varnas are, as referenced in earlier section, brahman, kshatriya, vaishya, and shudra (1.3.5-8).

As documented in the earlier section, while varna slipped into jati later, it certainly did not encompass the institution of slavery. Greek traveller Megasthenes mentions that all Indians were free and they did not even consider using foreigners as slaves (McCrinkle, 1877). In contrast, Galbraith (1987) quotes Aristotle's explicit view that some men are by nature slaves and that slavery is both expedient and right. Moreover, the welfare state envisaged by

⁷ Emphasis on societal welfare had found expression in the treatise *Kathopanishad* in Yajur-Veda much earlier than that in Arthashastra (Knapp, 2006). The specific text read, "May all be happy, may all be free from disease, may all realize what is good, and may none be subject to misery." This exhortation is reminiscent of Jeremy Bentham's principle invoked two millennia later in the late 18th century (Burns, 2005). It states, "It is the greatest happiness of the greatest number that is the measure of right and wrong."

Kautilya was also not a theocratic state, for Arthashastra does not prescribe any organized theological body to intervene in the affairs of the state. For such a welfare state to flourish; Kautilya fashioned institutions for the conduct of the ruling king, state administration, internal security, national defence, and economic activities. To this end, rules, regulations, and policy measures were prescribed in a total of 15 books of the treatise Arthashastra. Nine of these books are completely devoted to king's conduct, administration, and security issues; and about 6 are devoted to political economy aspects. Below, I bring out quite a few important examples of the latter.

4b Provision of Public Goods

That the happiness of the ruler lies in the happiness of the subjects was not mere a pious statement for Kautilya. He identifies and mandates that government must provide for and intervene in, what in today's terminology are called *public goods*, *common property resources*, and *natural monopolies*. For example, in (2.1.19-20) he prescribes state provision of public goods such as roads, waterways, tanks, dams, and irrigation canals. Concern for common property resources gets expressed in (2.2.1,5), where the non-agricultural lands were expected to be allotted (on lease) as cattle-pastures and settlers were allowed in identified forests to trade in forest-produce. Ore and mineral-salt mines were to be owned by the state; however, if leased out, then monopoly tax would be collected (2.17.22, 28 & 2.12.36-36). As referenced in earlier section, in modern times, poverty reduction is considered as a public good and government must engage itself in poverty reduction. The originator of this modern idea was Jeremy Bentham. At the turn of the eighteenth century he proposed a relief system (workhouses) by the state to secure paupers from starvation (Stokes, 2001). We find the same ideal proposed by Kautilya, albeit two millennia earlier. He clearly mentions in (2.1.26) that the helpless among children, aged persons, and those in distress must be looked after by the state. Thus, Kautilya makes the idea of welfare state and identification of public goods very ancient.

4c Public Finance

Kautilya categorically states that role of the government is dependent on finance, and hence, ruler must focus attention on treasury (2.8.1). He opines that revenue generation by the state should be considered as a compensation to the ruler for bringing order, wellbeing, and security (1.13.5-7,9). And, once again, this thought is a *deja vous* moment for Kautilya – Thomas Aquinas had said the same thing a millennium later in *De Regimine Judaeorum*. For

Aquinas too, taxation was meant as a fair payment for the services of a king. These services included provision of public goods but did not constitute income redistribution. To him, that would be the distinction between a just king and a great robber (Meredith, 2008). While taxation is necessary, Kautilya was aware of limits to taxation. To him, ruler did not have too much discretion in matters of taxation, for excessive rates could cause taxpayers, especially in the border areas, to move to neighbouring countries (5.2.3). This is reminiscent of what Tiebout (1956) wrote about competition across tax jurisdictions and the tendency of residents to migrate where taxes are lower in relation to delivery of public goods. Kautilya also carried forward the idea, referred earlier in sub-section 3f of this paper from Book XII of Mahabharata that taxes should be collected just like the bees collect honey from the flowers. Kautilya emphasizes that taxes should be collected sustainably, just as only the ripened fruits are picked from the orchards, with unripened ones given time to mature (5.2.70); or else citizens may revolt against the ruler.

To achieve this purpose, Kautilya had identified a detailed list of revenue sources and their categories. They ranged from agriculture to zoo including tradable and manufactured items. For example, agricultural produce was the most important part of the state's revenue. Those lands that were state owned but not cultivated by state could be leased out to cultivators who would give half the produce to state. Others who could not bring their own seeds, bullocks, labourers, and implements would give about three-fourth of the produce to the state (2.24.26). And those who owned lands would give only one-sixth of the produce to the state. Kautilya also provided a detailed list of duties on various goods and services. Among others, for example, duties were 5 per cent on salt, sugar, wines, and liquor and gambling; 10 per cent on silk cloths, various metals, and sandal-wood; and 20 per cent on imports (2.22.1-7). The list is reminiscent of the limited number of GST tax rates introduced recently by the Indian government in 2017.

Moreover, Kautilya was also very much concerned about judicious use of the tax revenue (8.4.23). Exactly on the lines of the modern 'pay commissions' that get constituted by governments for fixing wages, salaries, and revenue expenditures of the government, Kautilya had prepared a thorough list for annual wages and salaries to be paid to the government employees as also for other revenue expenditures. For example, payments

ranged from as high as 48,000 *panas*⁸ per year to king's minister, army commander, and the teacher; 24,000 *panas* to collector-general; 12,000 *panas* to village officers (*paura*); 1000 *panas* to department superintendents; 500 *panas* to accounts staff; 60 *panas* for servants, guards, valets, palanquins attendants, labourers, and 10 *panas* per *yojan* (10-15 km) for a messenger. While his attention to such minute details of administrative payments was noteworthy, what was even more remarkable was his mindfulness of the need to preserve substantive revenue for public goods. He categorically mentioned that wages and salaries of the state should not exceed 25 per cent of the total revenue (5.3.1). Once again, this is reminiscent of present day governments being advised by economic advisors to shun revenue deficits. Saletore (1963) had summed up well when he said that the Kautilya's theory of public finance was both comprehensive and probably the world's most ancient.

4d Markets, Property Rights, Prices, and Trade

Taxation is not an end in itself. Its aim is to cover administrative expenses and provide public goods. The ultimate objective, of course, is the material wellbeing of society. Kautilya knew that it is not excessive taxes but market facilitation and increase in output that would result in increased material wellbeing as well as increased treasury. For example, he asserts that promoting prosperous activities, abundance of crops, keeping society away from thievery and trouble would ensure increase in treasury (2.8.3). To him, upholding property rights was important to promote livelihood (8.3.28-29). Hence, penalties and punishments were stipulated for violation of individual property rights. In fact, Kautilya devotes entire Book 3 on the conduct of judges and specifies nature of contracts and rules of evidence concerning immovable properties, loans and deposits, inheritance, and marriage. In the plan of a fortified city, he had assigned specific quarters for trading of different goods, location of their warehouses, record-rooms, stables, and for merchant guilds (2.4.9-16). The Superintendent of Markets was to inspect weights and measures for any frauds committed and mete out punishments (4.2.2). There were specific instructions to Mint Master for exact proportions of metals going into making of silver and copper coins and strict penalties for production of counterfeits (2.12.24-25). As pointed out by Sihag (2009) and Skare (2013), among other things, Kautilya's detailed attention to weights and measures, specifications for coin content, and the strict punishments for their violations are indicative of his understanding of market failure due to asymmetric information. Through his alerts, in

⁸ One *pana* is a punch-marked (silver/copper) coin of the Maurya period. Further division of coins upto one-eighths *pana* also existed.

modern terminology, he was addressing the moral hazard problem faced by market participants. Thus, he had ensured that tangible infrastructure was put in place for smooth functioning of the markets. In those days, the most important source of market supplies was agriculture, and, therefore, farmland. He acknowledged variability of land quality which depended upon variation in rainfall, arability, adaptability of land to different crops, and population density. In this, while he may have indirectly invoked diminishing returns to land *a la* Ricardo, he also seemed concerned with non-economic factors such as menace of wild animals, forest tribes, and attacks from neighbouring rulers affecting land productivity (6.1.8). Therefore, it was advisable that ruler picks secure locations to settle new villages and market towns with provisions of roads, water tanks, and other infrastructural requirements.

Kautilya's observation about goods *auctioned* at the markets was indicative of his awareness of demand and supply forces and relative scarcity. He was aware of traders restricting supply by colluding and charging monopoly price. For such trade restricting behaviour, he had mandated heavy penalty (4.2.19). On the other hand, if there was glut in the market, director of trade was expected to hold back sales to prevent price decline (4.2.33). Kautilya seemed to have a notion of a just price. The director of trade was to ascertain cost price after taking into account investment, production, rent, interest, duty, and other expenses (4.2.36). This applied both to importables and exportables. For determining sale price of domestic and imported goods in particular, a 5 per cent and 10 per cent profit was allowed over and above purchase price of the goods, respectively (4.2.28). There were penalties for sale prices being higher than these stipulated mark-ups. If there was too much competition among buyers for purchase of goods or land, the profits would be too high. In that case, the increased price and the duty were mandated to go to treasury (2.21.9, 3.9.5)⁹. In fact, he was also aware of under-invoicing by traders to avoid duty. If detected, trader had to pay eight times the regular duty (2.21.7, 11).

From the available evidence it can be inferred that Kautilya favoured free trade. He had stipulated duty concessions for imported products to augment their supply (2.16.11; 2.21.31). In fact, in his master plan for physical infrastructure of the markets in the cities, he had also

⁹ These interventions suggest that while Kautilya wanted to promote economic growth through market infrastructure, prosperous activities, and abundance of crops; he disfavoured disproportionately high rates of profits. This notion invokes what Piketty (2014) has argued – That when the return on capital is higher than the rate of economic growth, it causes higher income inequalities, and, hence, the need for state intervention. Though, Summers (2014) criticizes Piketty for underestimating the diminishing returns to physical capital, which will set an upper limit to return on capital and hence on inequality.

arranged for separate quarters for foreign traders. Kautilya's worldview is perhaps reflective of the principles exposed earlier in the Vedic literature. For example, verse (6.71) in the text *Maha Upanishand* from Sam-Veda (Warrier, 1953; Hattangadi, 2016) states, "Only narrow-minded persons discriminate saying one is a relative and the other is a stranger. For the noble-hearted, the entire world constitutes a family." It is noteworthy to mention that even the sixteenth century reformist, Martin Luther was against trade. Explicitly citing India, he wrote (Luther, 1524; p. 17), "But foreign merchandise which brings from Calicut and India, and the like places, wares such as precious silks, and jewels, and spices, which serve only love of show and no useful purpose, and drain the land and people of their money, should not be permitted." One had to wait for Smith (1776) to openly profess free trade in Europe. On the whole, Kautilya's detailed understanding and documentation of prices, cost, domestic markets, and foreign trade was more than exemplary for his times. Spengler (1971, p. 49) acknowledged this when he wrote, "There was more recognition of the role of price and market in some of the Indian writings than in those of Aristotle, viewed by some as the founder of economics."

4e Lending, Risk, and Interest Rates

Access to loan is an important component of market facilitation. West Asian religious traditions allowed lending but forbade charging of interest. Ancient Jewish literature allowed charging interest but only to the non-Jewish (foreign) debtors. Even the Greek and Roman philosophers such as Aristotle, Cicero, and Pliny disapproved of charging interest on lending. In fact, Cato considered it 'as bad as murder' (Ingram, 1919). In the Indian tradition, debt (*Rna*) as well as its repayment has often been mentioned in Rig Veda but whether or not interest was charged is not clear (MacDonnell and Keith, 1912). However, circa 700 BCE, Panini, the grammarian, had laid down rules and symbols for expressing interest in per cent terms (Datta, 1927). In fact, even the daily and compound interest was thought through. A grammarian would only systematize what is in vogue in society. Hence, expressing interest as a per cent of debt must have been known to Indians prior to 700 BCE. This notion of expressing interest as a 'per cent' originated in India and the Dharmashastras written after Panini's grammar confirm that money lending and charging interest was a legitimate occupation (Jain, 1929).

Equally important, however, is Kautilya's acumen to associate interest rate variability with risk, uncertainty, and other situations characterising loans (3.11.1). For example, the per-

month base rate he had prescribed for a secured loan was 1.25 per cent and for (local) trade and commerce it was 5 per cent. However, if the commercial activity involved travel through forest or sea, there was additional risk premium of 5 and 15 per cent, respectively. This relative riskiness of land and sea routes, and hence of borrowings was recognized by Kautilya (7.11.17, 7.12.20-27). Higher rates were also prescribed when risks were even higher in certain dealings. For example, advances to soldiers on expedition would attract double the charge due to unusual risks (5.3.43). Beyond these and a few other prescribed rates, usury was made illegal and fetched punishment.

4f. On Labour Market

As reported in earlier sub-section on public finance, the lowest wage for state employees was 60 panas per year for unskilled workers such as servants, guards, valets, palanquin bearers, and labourers. In the private sector, for agricultural labourer, watchmen, cowherds and others, Kautilya had fixed the rate at direct cash of 15 panas a year plus annual provision of food for the labourer and his family (2.24.28). As Kangle (Part III, p. 209) describes, this would add upto about 60 panas a year, the lowest wage for an equivalent role in government sector. If the wages were not agreed upon in the private sector, he stipulated that an agricultural labourer, cowherd, and a trader would receive $1/10^{\text{th}}$ part of the crops, butter, or the goods dealt in by them (3.13.27). Thus, Kautilya seemed to have a fair idea of minimum wage for unskilled labour in different sectors. He also stated that general occupations such as physicians, professional story-tellers, artisans and others should get remuneration similar to what others of those types get elsewhere (3.13.30). The term 'elsewhere' is reflective on the notion of opportunity cost in determining wages for skilled professionals. Kautilya also shows his understanding of relation between labour productivity and wages. For yarn, textile, and armour making, he specifies that wage should be determined based on amount of work, quality of work, and time required. Thus, he is aware of wages being a function of skill, time, and quality. Moreover, he talks of incentives to craftsmen in terms of giving herbal shampoos, perfumes, and other gifts not related either to piece rate or time rate (2.23.2-8). This again, is a reflection of his understanding of 'efficiency wage' concept that would ensure quality and prevent shirking.

Kautilya writes about labourer's rights and occupational safety as well. If a labourer is incapable, falls ill, or is in calamity, he can get annulment of his work agreement or get the work done by another person (3.14.2). If a labourer presents himself for work and employer

allows him to work for a while but retrenches quickly, it would be assumed that the work is done by the labourer (3.14.9). If a labourer is hired through a *sangha* (union or crafts guild), he/she could not be removed or replaced without informing the employer, else penalties were stipulated (3.14.15). While Kautilya mandated no slavery among Indians (3.13.4) and that Indians did not have a slave-owning society like the one in ancient Greece, where small number of citizens owned large hordes of slaves (McCrinkle, 1877), bonded-labour (*udardaasa* or *ahitaka*) existed. Generally, this would be the result of a person's services pledged to another due to times of distress such as being a convict or a defaulter of penalties or contracting debt, or being in penury. However, Kautilya had explicitly stated rights of such persons. Such persons had a right to be freed from the pledged status by redeeming through accumulated savings from their job. They would earn the same minimum wage as earned by free-labourers. Moreover, one could not take a minor below the age of eight as a bonded-labour. Similarly, dishonouring female (bonded) labour, giving corporal punishment, forcing to do menial jobs such as picking urine and dung was punishable (3.13.9). Furthermore, a bonded-labour could own property and his kin had the right to inherit it.

5. Concluding Comments

The history of Indian economic thoughts goes back to Vedas which were first composed at least three millennia ago. The expressions of early economic thoughts were grounded in the socio-cultural and material environment that existed then. Though disjoint and scattered in different texts, these thoughts were profound and did get collated and improvised over the centuries. The treatise on political economy, Arthashastra, written circa fourth century BCE, came out of the crucible of the Vedic and other secular texts. The continuity of thoughts, however, was lost probably after the Golden Age of the Gupta dynasty in the sixth century CE, and further escaped into oblivion from the times of Muslim invasions and colonial rule. Discovery of many of the ancient texts, their translations into English, and their exposure, both to domestic and foreign researchers began only in the early twentieth century. However, the colonial preconceptions about 'backwardness' of Indian society resulted in focus of academic research mainly on the otherworldly nature of the Indian tradition. The hangover continued after independence, where economist such as Raj Krishna, pejoratively referred to India's slow GDP growth rate as the 'Hindu Rate of Growth'. In fact, having copied the command and control model of the Soviet Union, the slow growth rate was the Socialist Rate

of Growth. A corollary of these developments was that only a scant attention was paid to the history of economic thought that emerged in the Indian subcontinent.

If the Sanskrit grammarian Panini came up with nomenclature for compound interest circa 700 BCE, it was Kautilya who understood the relation between interest rates and risk and uncertainty. In contrast, western world had looked down upon interest as usury until a millennium after Kautilya's treatise. If the examples from the Vedic literature talked of material acquisitions as a precondition for otherworldly objective, text in Mahabharata alluded to ruler paying attention to fiscal prudence, public goods, and market facilitation. Kautilya went quite a few steps further. To him, the concept of state intervention for public goods, common property resources, and natural monopolies was well understood. Moreover, if the detailed list of salaries and wages to be paid to government employees reminds one of the 'pay commissions' appointed by modern states, restricting employee compensation to certain proportion of tax revenue highlights Kautilya's prudence in avoiding revenue deficit. Kautilya had also understood the importance of market facilitation and the role of prices and prevention of monopoly profits. Standardizing weights and measures and minting of coins, and, inventive ways of labour compensation were indicative of Kautilya's understanding of adverse selection and moral hazard problems. He was not averse to opening economy to foreign markets. When the protestant reformer, Martin Luther had proposed a ban on Indian goods circa sixteenth century, Arthashastra talked of freer trade in fourth century BCE through market concessions to imported goods. Thus, ancient Indian literature can be described as the preeminent Pre-Classical literature on economic thought, and, as alluded by Skare (2013), Kautilya could be considered as the first Pre-Classical economist.

The intent of this paper has been to present and give recognition to the economic thought that had emerged in ancient Indian literature. While otherworldly features of Indian tradition may be unique, what I have presented is the literature that shows importance given to material conditions and the economic incentives. The writings may not have given a specialized, dedicated, continuous exposition of abstract economic principles; however, Kautilya's treatise goes to show that economic principles that have been identified in the modern world were being put to use as political economy tools in the ancient Indian writings. The use of similes in early ancient texts, descriptions of economic advices to the rulers, and, the institutional rules and regulations laid down in Arthashastra for the smooth functioning of the political economy exemplify pragmatic application of the modern economic principles. As

Ingram (1919) said, “Institutions must be judged in their proper setting of time and place, and men cannot be understood unless they are brought into connection with the life of their own country and their own age.” In this context, the ancient Indian literature had achieved far beyond expectations. To paraphrase Waldauer, Zahka, and Pal (1996), had this literature been accessible to the occidental thought during the middle ages and the mercantilist period, classical economics might have evolved much earlier. This paper is an attempt to bring out in bold relief, the contribution of this literature in the history of economic thought.

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