

***Star Trek's* Federation: A Keynesian Post-Scarcity Utopia**

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Introduction

ECONOMICS IS A social science that studies the factors which determine the production, distribution and consumption of goods and services, and the various interactions between these factors. The term is derived from the Greek οἶκος (house) and νόμος (nomos, custom/law). This is a critical field of study since goods, commodities and resources are always finite and the individual and the group to which the individual belongs must choose how to acquire and allocate these limited assets. Such choices may be influenced by central (such as state) planning, markets or prices and constitute an “economic problem” (Keynes 1930b), as will be explained.

The discipline is commonly divided into two separate fields of study. Microeconomics examines the behaviour of the smaller and more basic economic elements such as individuals and their own markets. Macroeconomics studies the behaviour of entire economies that in turn consist of aggregates of individuals (Mankiw 2011).

National macroeconomic approaches have varied over the ages and are naturally expected to continue to change in the future. *Star Trek* is a popular science fiction franchise that comprises over 700 hours of viewing time, “a rolling and seemingly endless adventure, a continual reaffirmation of the Campbellian monomyth” (Grech “Picard,” 20). The series spans the 22nd-24th centuries and includes the United Federation of Planets, a polity of allied worlds, a “(l)iberal, post-capitalist, almost perfectly socialist utopian democracy that embraces a constitutional republic” (Grech “Philosophical Concepts,” 3-4). In this future

most (if not all) of the major problems facing the human species have been resolved and the Earth has since been transformed into a human paradise, with [...] a literate and compassionate population that has learned to appreciate life as a grand adventure” (Roddenberry 1987, 35).

The Federation practices a markedly different economic

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macroeconomic approach toward the end of the timeline depicted in the franchise when compared to the contemporary era.

This paper will review the relevant origins of current economic theory in developed countries, limiting its purview to the works of the economists Adam Smith and John Maynard Keynes. This is particularly appropriate as 2016 is *Star Trek's* 50th anniversary and the 70th anniversary of Keynes's death. This essay will also contrast extant economic practices with those depicted in the fictional *Star Trek* future. It will be shown that the Federation comprises a Keynesian post-scarcity economy, as averred by Keynes in his optimistic predictions,

in days not so very remote, [...] the greatest change which has ever occurred in the material environment of life for human beings in the aggregate [...] will all happen gradually, [...] there will be ever larger and larger classes and groups of people from whom problems of economic necessity have been practically removed (Keynes 1930b).

This paper will also demonstrate the contrasts that arise when members of the Federation, through a form of time travel, encounter contemporary individuals who are accustomed to capitalism. As Manu Saadia, the author of the forthcoming book *Trekonomics* notes, encounters of this sort are akin to

a modern-day version of Gulliver's Travels. [...], [R]einvents the old Enlightenment trope of the well-meaning explorer who grapples with the idiosyncrasies of the not-so-exotic tribes he encounters. [...] When our world appears through strangers' eyes, the audience's perspective flips. This trope reveals the comical strangeness in what we consider familiar and habitual. We are led to realize that nothing in our world is in fact natural. Everything that we take for granted is arbitrary, the result of social convention, chance or historical accident, and will inevitably change (Saadia, *Trekonomics*, chapter 1).

This paper will further depict the deliberately exaggerated differences between the Federation and the Ferengi economic systems since the latter constitutes a deliberately overstated and parodic version of capitalism. This paper will also consider the circumstances that lead to persistent inequality to this very day, shaping our society

more on Ferengi lines than on those of the Federation. Reference will be made to Thomas Piketty's *Capital in the Twenty-First Century* (2014) since this authoritative work reviews broad historical global economic trends and suggests possible actions that may mitigate the current economic divides between individuals and nations.

Adam Smith

Adam Smith (1723-1790) was a Scottish moral philosopher and a key figure in the period of Scottish Enlightenment. He is widely considered to be the father of modern economics (Haakonssen) and his theories were published in two books, *The Theory of Moral Sentiments* (1759), and *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776). The two works provide somewhat contrasting views. According to Ekelund and Hebert, "in the former, sympathy is the moral faculty that holds self-interest in check, whereas in the latter, competition is the economic faculty that restrains self-interest" (2007, 105).

Smith's most oft quoted maxim is that the "unintended consequences of intended action" benefit society at large, and he referred to this as "the invisible hand." He asserted that the entrepreneur, "[b]y pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it" (Smith 1776). This refers to the actions of individuals who are driven by rational self-interest to better their lot in the setting of competition from peers, and who thereby inadvertently improve the economic lot of society at large, fostering prosperity for all. A free market is necessary for this to occur and for this reason, Smith is also known as the father of free market economics.

Smith also maintained that productive labour should be made more so by the process of competition which leads to a lowering of prices and thereby an extension of markets, resulting in more demand and the need for increasing supply and turnover. He also proposed that ending barriers to business, both domestically and internationally (including lowering taxation) would stimulate economic activity, and enhance not only individual but also eventually State prosperity.

However, this viewpoint exaggerates and lauds self-interest as a magnanimous and philanthropic force that ultimately and invariably benefits all of society. This is unrealistic as evidenced not only by the poor working conditions and poverty of many workers during the industrial revolution (Jensen) but also by the current widening divide between the haves and have nots due to "worrisome forces of divergence" (Piketty 23).

Keynes

John Maynard Keynes (1883-1946) was a prominent economist who refined earlier work on business cycles. He is widely considered to be the father of modern macroeconomics and one of the most influential economists of the 20th century (Clarke). His book, *The General Theory of Employment, Interest and Money* (1936), expounded the theory that a market economy naturally tends to restore itself to full employment after temporary shocks, depressions and recessions. Keynes wrote this work during the Great Depression and blamed the underlying problem as being a shortage of demand in the supply and demand equilibrium. He recommended that governments make up the shortfall in demand by borrowing and spending, thus creating demand and stimulating the economy. This concept is known as Keynesian economics and overthrows a basic tenet of classical economics: that saving results in economic growth.

However, Keynes also wrote a short essay in two parts entitled “Economic Possibilities for our Grandchildren” in the journal *The Nation and Athenaeum* (Keynes 1930a, 1930b), which was later reprinted in *Essays in Persuasion* (1933). This essay conjectured on the ways in which the global economy might eventually evolve, ending with optimistic predictions for a utopian economic future. Keynes propounded the eventual probability of the world evolving into a post-scarcity economy, one in which goods, services and information would be universally accessible since

[a]ll kinds of social customs and economic practices, affecting the distribution of wealth and of economic rewards and penalties, which we now maintain at all costs, however distasteful and unjust they may be in themselves, because they are tremendously useful in promoting the accumulation of capital, we shall then be free, at last, to discard (Keynes 1930b, 37).

In brief, an idealistic prospect, “one in which the need for accumulation had withered away” (Chernomas 1984, 1007), a future wherein “[w]e shall once more value ends above means and prefer the good to the useful” (Keynes 1930b, 37). A vast amount has been written about this relatively short essay, to the extent that an edited collection of essays has been published (Pecchi and Piga 2008). Selected quotations from the essay will be used to contrast Keynes’s vision with that of Gene Roddenberry’s United Federation of Planets.

The United Federation of Planets

“Many worlds, human and otherwise, have joined together to form a Federation of mutual benefits and services” (Roddenberry 1987, 35). The utopian United Federation of Planets appears to operate as a post-scarcity economy which embraces rationalism, tolerance, altruism and egalitarian meritocracy. The economics of the Federation were not explored when the show was first aired. As noted in the *Star Trek Writers/Directors Guide* by the franchises’ creator, Gene Roddenberry, “television today simply will not let us get into details of Earth’s politics of Star Trek’s century; for example, which socio-economic system ultimately worked out best” (Roddenberry 1967, 29).

However, twenty years later, in *The Next Generation* and in the following series, as well as in the movies that overlapped the various series, these restrictions had become passé (Roddenberry 1987, 35). It is abundantly clear that the polity does not internally circulate currency as we know it. “When the new world economy took shape in the late twenty second century [...] money went the way of the dinosaur, Fort Knox was turned into a museum” (Bole, “Dark Frontier”).

When a woman from 1986 protests “don’t tell me they don’t use money in the twenty-third century,” Captain Kirk almost sheepishly replies “well, they don’t” (Nimoy, *Star Trek IV*). This is reaffirmed by Captain Picard: “money doesn’t exist in the twenty-fourth century.” A flabbergasted 21st century human expostulates “No money! That means you don’t get paid.” To which Captain Picard replies “the acquisition of wealth is no longer the driving force in our lives. ...We work to better ourselves ...and the rest of humanity” (Frakes, *First Contact*). This was prefigured by Keynes, as will be discussed later, who professed that

[t]he love of money as a possession – as distinguished from the love of money as a means to the enjoyments and realities of life – will be recognised for what it is, a somewhat disgusting morbidity, one of those semi-criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease (Keynes 1930b, 37).

The contrast is even starker when the Starship *Enterprise* encounters a 20th century human, “Ralph Offenhouse, age fifty five, occupation financier” who is found in suspended animation with a terminal disease, and who is promptly revived and cured by the *Enterprise* medical

team (Conway, “The Neutral Zone”). Ralph is monomaniac:

I need to make a phone call as soon as possible. [...] I have provided for myself. I have a substantial portfolio. It's critical that I check on it. Let the bank know that I am alive and well. [...] Well, do you at least have a copy of The Wall Street Journal? [...] I have to phone Geneva right away about my accounts. The interest alone could be enough to buy this ship. [...] I demand a phone, or a radio whatever else you have. Frankly, enough is enough. Especially under the circumstances, and considering what I paid for this procedure! I must make contact with my lawyer. (Conway, “The Neutral Zone”)

This echoes Keynes, who was fully cognisant of the cumulative effect of compound interest. He specifically observed that “the power of compound interest over two hundred years is such as to stagger the imagination” (Keynes 1930a, 97). Ralph Offenhouse further expostulates with the starship's Captain

I'm sure whatever it is seems very important to you, but my situation is far more critical. [...] Believe me, I'm fully cognisant of where I am, and when. It is simply that I have more to protect than a man in your position could possibly imagine. No offence, but a military career has never been considered to be upwardly mobile. I must contact my lawyer. [...] he was a full partner in a very important firm. Rest assured, that firm is still operating. (Conway, “The Neutral Zone”)

The 24th century crew comment disparagingly out of earshot: “these are the most unusual humans I have ever encountered. [...] Well, from what I've seen of our guests, there's not much to redeem them. It makes one wonder how our species survived the twenty-first century.” This also echoes Keynes who stated “I feel sure that with a little more experience we shall use the new-found bounty of nature quite differently from the way in which the rich use it to-day, and will map out for ourselves a plan of life quite otherwise than theirs” (Keynes 1930b, 38). Clearly, capitalism in the *Star Trek* universe has been consigned to a somewhat distasteful past history, an almost bizarre anthropological aberrancy. Ralph later partially apologises:

I didn't mean to come on so strong. It's just that I've built my whole life on knowing what's going on. For the first time I feel completely out of touch. It's making me crazy. You can understand that? (Conway, “The Neutral Zone”)

But in between the previous quotation and the ones before, this telling exchange summarises the differences between current economics and the Federation post-scarcity economy.

Picard: A lot has changed in the past three hundred years. People are no longer obsessed with the accumulation of things. We've eliminated hunger, want, the need for possessions. We have grown out of our infancy.

Ralph: You've got it all wrong. It's never been about possessions. It's about power.

Picard: Power to do what?

Ralph: To control your life, your destiny.

Picard: That kind of control is an illusion.

Ralph: Really? I'm here, aren't I? I should be dead but I'm not. (Conway, “The Neutral Zone”)

Ralph is shaken, his worldview and lifelong beliefs exposed as not only outdated but puerile. The following exchange neatly summarises and reiterates the first Keynesian quotation in this paper:

Ralph: what will happen to us? There's no trace of my money. My office is gone. What will I do? How will I live?

Picard: This is the twenty fourth century. Material needs no longer exist.

Ralph: Then what's the challenge?

Picard: The challenge, Mister Offenhouse, is to improve yourself. To enrich yourself. Enjoy it (Conway, “The Neutral Zone”).

In the Federation, labour and leisure are clearly indistinguishable. This was also prefigured by Keynes whose quotation applies not only to his utopian future vision but also to the fictional United Federation of Planets. “[I]t will be those peoples, who can keep alive, and cultivate into a fuller perfection, the art of life itself and do not sell themselves for the means of life, who will be able to enjoy the abundance when it comes” (Keynes 1930b, 37).

The Ferengi

As if the contrast between the utopian Federation future and contemporary times is insufficient, the Star Trek franchise portrays a parodic vision of extreme capitalism reified in an alien species, the Ferengi. This race venerates profit above all else, and thrives on cheating, bribery and misogyny in their relentless quest to accumulate profit. Ferengi who fail to behave as per custom risk having their “business license” revoked and becoming literal outcasts in Ferengi society (Brooks, “Body Parts”).

Trading is licenced by the “Ferengi Commerce Authority” (FCA) a Ferengi government agency supervised by a “Board of Liquidators” who are charged with overseeing business practices as per the official “Ferengi Trade By-Laws” (Brooks, “Body Parts”; Siddig, “Profit and Lace”).

Female Ferengi are forbidden from trading or owning property and the FCA had the power to punish Ferengi females found to have earned profit by selling them into indentured servitude (Siddig, “Profit and Lace”). FCA agents are known as “liquidators,” and are greatly feared by Ferengi traders (Siddig, “Profit and Lace”).

The Ferengi equivalents of heaven and hell are also based on monetary values. The “Divine Treasury” is the heaven to which financially successful Ferengi aspire to after death. It is said to be made of pure “latinum,” the gold equivalent for Ferengi – as will be explained later. The newly deceased are met by a “Registrar” at the gates to the Divine Treasury and if they are found worthy, the Registrar accepts their bribe and ushers them inside, where they are then met by the “Blessed Exchequer.” Their profit and loss statements are reviewed and if found to be favourable, the deceased are allowed to bid on a new life under the supervision of the “Celestial Auctioneers” (Conway, “Little Green Men”; Bole, “False Profits”). Ferengi hell is known as the “Vault of Eternal Destitution” (Conway, “Little Green Men”).

Ferengi customs are best appreciated by referring to the equivalent of the Ferengi Bible, the “Rules of Acquisition” (Behr), a numbered series of aphorisms, guidelines, and principles that provide the immutable foundation of business philosophy in Ferengi culture, “unabridged and fully annotated, with all 47 commentaries, all 900 major and minor judgments, all 10,000 considered opinions. There’s a rule for every conceivable situation” (Bole, “False Profits”).

The Rules of Acquisition may be arbitrarily but conveniently grouped by theme and only a few representative examples will be given. Several refer to common busi-

ness sense, e.g.:

- Rule 3: Never spend more for an acquisition than you have to (Allen, “The Maquis, Part II”).
- Rule 45: Expand or die (Bole, “False profits”).
- Rule 57: Good customers are as rare as latinum. Treasure them (Kolb “Armageddon Game”).
- Rule 62: The riskier the road, the greater the profit (Conway, “Little Green Men”).
- Rule 74: Knowledge equals profit (Kroeker, “Inside Man”).
- Rule 98: Every man has his price (Lobl, “In the Pale Moonlight”).
- Rule 112: Never have sex with the boss’s sister (Livingston, “Playing God”).

However, blatant misogyny is patent in:

- Rule 94: Females and finances don’t mix (Siddig, “Profit and Lace”).
- Rule 139: Wives serve, brothers inherit (Conway, “Necessary Evil”).

The fraudster trait is unmistakable in:

- Rule 239: Never be afraid to mislabel a product (Brooks, “Body Parts”).
- Rule 1: Once you have their money, you never give it back (Livingston, “The Nagus”).
- Rule 17: A contract is a contract is a contract... but only between Ferengi (Brooks, “Body Parts”).

The trait to cold-heartedly exploit one and all is evidenced in:

- Rule 6: Never allow family to stand in the way of opportunity (Livingston “The Nagus”).
- Rule 21: Never place friendship above profit (Livingston, “Rules of Acquisition”).
- Rule 111: Treat people in your debt like family... exploit them (Vejar, “The Darkness and the Light”).
- Rule 211: Employees are the rungs on the ladder of success. Don’t hesitate to step on them (Burton, “Bar Association”).

And finally, the rules that most parody Ferengi and the rank capitalism that they embrace are:

- Rule 10: Greed is eternal (Bole “False profits”).

- Rule 18: A Ferengi without profit is no Ferengi at all (Auberjonois, “Ferengi Love Songs”).
- Rule 23: Nothing is more important than your health... except for your money (Whitmore, “Acquisition”).
- Rule 102: Nature decays, but latinum lasts forever (Friedman, “The Jem’Hadar”).
- Rule 263: Never allow doubt to tarnish your lust for latinum (Burton, “Bar Association”).
- Rule 229: Latinum lasts longer than lust (Auberjonois, “Ferengi Love Songs”).
- Rule 285: No good deed ever goes unpunished (Bole, “The Collaborator”).
- Unnumbered: A man is only worth the sum of his possessions (Whitmore, “Acquisition”).

This code of behaviour directly violates Keynes’s credo. “When the accumulation of wealth is no longer of high social importance, there will be great changes in the code of morals [...] by which we have exalted some of the most distasteful of human qualities into the position of the highest virtues” (Keynes 1930b, 36). However, even in the absence of Keynes’ teachings, Ferengi behaviour so lampoons the worst of capitalist behaviour that the race become an outright parodic caricature of capitalist comportment. Indeed, Ferengi conduct clearly demonstrates “that avarice is a vice, that the exaction of usury is a misdemeanour, and the love of money is detestable” (Keynes 1930b, 37).

One particular monologue summaries the enlightened Federation’s view of the Ferengi

I’ll never understand this obsession with accumulating material wealth. You spend your entire life plotting and scheming to acquire more and more possessions, until your living areas are bursting with useless junk. Then you die, your relatives sell everything and start the cycle all over again (Lynch, “Q-Less”).

Current extreme capitalist demeanour as inspiration for the Ferengi species is actually acknowledged by a Ferengi bartender in a conversation with Sisko, the commanding officer of the space station *Deep Space 9*.

Commander, I think I’ve figured out why humans don’t like Ferengis [...], humans used to be a lot like Ferengi. Greedy, acquisitive, interested only in profit. We’re a constant reminder of a part of your past you’d like to forget. [...] But

you’re overlooking something. Humans used to be a lot worse than the Ferengi. Slavery, concentration camps, interstellar wars. We have nothing in our past that approaches that kind of barbarism. You see? We’re nothing like you. We’re better (Friedman, “The Jem’Hadar”).

Currency

The technology in *Star Trek* includes replicators which are able to produce just about anything if given the correct template/pattern (Grech “The Transporter,” 52). One would have thought that this would instantly result in a post-scarcity economy unless the usage of these devices consumes something (such as energy) that is relatively scarce, re-invoking the tenets of supply and demand and thereby necessitating a form of medium of exchange, material or electronic.

Indeed, some sort of currency appears to be in use in the Federation but its role is never quite pinned down. The currency is called latinum and is a rare silver-colored liquid that is used as currency by the Ferengi and several others races. Denominations in increasing value are the slip, the strip, the bar, and the brick. The liquid is said to unreplicateable and for ease of use, is bound to replicateable (and therefore valueless) gold to produce a solid (as opposed to awkward liquid) currency (Lobl, “Who Mourns for Morn?”). The occasional need for currency by humans can result to humorous situations:

Jake: I’m human, I don’t have any money.

Nog (a Ferengi): It’s not my fault that your species decided to abandon currency-based economics in favour of some philosophy of self-enhancement.

Jake: Hey, watch it. There’s nothing wrong with our philosophy. We work to better ourselves and the rest of humanity.

Nog: What does that mean exactly?

Jake: It means. It means we don’t need money (Dorn, “In the Cards”).

Post-Scarcity Economy

Keynes noted that the existential “economic problem, the struggle for subsistence, always has been hitherto the primary, most pressing problem of the human race – not only of the human race, but of the whole of the biological kingdom from the beginnings of life in its most primitive forms” in the toil for survival (Keynes 1930b, 36). He attempted to predict long-term trends, clearly stating that the

purpose in this essay, however, is not to examine the present or the near future, but to disembar-rass myself of short views and take wings into the future. What can we reasonably expect the level of our economic life to be a hundred years hence? What are the economic possibilities for our grandchildren? (Keynes 1930a, 96).

His paper commenced on a historical note, observing that in

the beginning of the eighteenth century, there was no very great change in the standard of life of the average man living in the civilised centres of the earth. [...] But no progressive, violent change. [...] This slow rate of progress, or lack of progress, was due to two reasons – to the remarkable absence of important technical improvements and to the failure of capital to accumulate (Keynes 1930a, 96).

Since the essay was penned during the Great Depression of the 1930s, he alluded to this as a transient setback.

We are suffering just now from a bad attack of economic pessimism. [...] We are suffering, not from the rheumatics of old age, but from the growing-pains of over-rapid changes, from the painfulness of readjustment between one economic period and another. The prevailing world depression, the enormous anomaly of unemployment in a world full of wants, [...] blind us to what is going on under the surface to the true interpretation of the trend of things (Keynes 1930a, 36).

Keynes attributed this temporary upheaval to

[t]he increase of technical efficiency [that] has been taking place faster than we can deal with the problem of labour absorption; the improvement in the standard of life has been a little too quick. [...] What is the result? In spite of an enormous growth in the population of the world, which it has been necessary to equip with houses and machines, the average standard of life in Europe and the United States has been raised, I think, about fourfold. The growth of capital has been on a scale which is far beyond a hundredfold

of what any previous age had known (Keynes 1930a, 97).

Keynes predicted that in “a few years [...] we may be able to perform all the operations of agriculture, mining, and manufacture with a quarter of the human effort to which we have been accustomed.” This would almost inevitably lead to “technological unemployment” (Keynes 1930a, 98) since the rate at which workers are laid off due to increasingly efficient work practices outruns “the pace at which we can find new uses for labour.” Keynes happily anticipated this since “[a]ll this means in the long run that mankind is solving its economic problem.” Despite this, he opined that the available commodities would increase “the standard of life in progressive countries [...] four and eight times as high as it is to-day.” He also hedged his bets by acknowledging “the possibility of a far greater progress still” (Keynes 1930a, 98).

He concluded that “assuming no important wars and no important increase in population, the economic problem may be solved, or be at least within sight of solution, within a hundred years” (Keynes 1930b, 36). He also admitted that the current capitalist code of conduct must perforce continue awhile as a necessary evil until this future was reached. “Avarice and usury and precaution must be our gods for a little longer still. For only they can lead us out of the tunnel of economic necessity into daylight” (Keynes 1930b, 37), viewing this period as an evolutionary phase until the post-scarcity condition is reached. Keynes therefore anticipated

a Marxist revisionist prediction fulfilled by capitalist reform. Labor, which is the sole producer of value added, inherits control and ownership over all that is produced. Private property is no longer a source of economic power, its historic purpose of saving and accumulating having outlived its usefulness (Chernomas, 1023).

Keynes assumed that the problem would metamorphose into one of excessive leisure, with a novel set of troubles. Referring to the common man, he wondered how he would “use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably and well” (Keynes 1930b, 36). He commented: “I think with dread of the readjustment of the habits and instincts of the ordinary man, bred into him for countless generations, which he may be asked to discard within a few decades” (Keynes 1930b, 37). A par-

tial solution is offered, such that individuals who desire purposeful work will be allowed to, and will be “glad to have small duties and tasks and routines [...] to make what work there is still to be done to be as widely shared as possible” (Keynes 1930b, 37).

However, at least to the present time, Keynes’s predictions were wildly optimistic. He bluntly noted that “the needs of human beings may seem to be insatiable. But they fall into two classes – those needs which are absolute” and are necessary to survival and those “of the second class” which “make us feel superior to, our fellows.” He correctly noted that the latter “may indeed be insatiable; for the higher the general level, the higher still are they” and this is precisely what we find to this day, an Adam Smith scenario run wild (Keynes 1930b, 37). Thomas Piketty in *Capital in the Twenty-First Century* has described this as the “central contradiction of capitalism” (Piketty 2013, 571) wherein wealth grows faster than economic output and

the entrepreneur inevitably tends to become a rentier, more and more dominant over those who own nothing but their labour. Once constituted, capital reproduces itself faster than output increases. The past devours the future (Piketty 2013, 571).

Keynes was therefore naïve in his assumption that that once essential needs are satisfied, then we would “prefer to devote our further energies to non-economic purposes” (Keynes 1930b, 37) since it is manifestly obvious that the richer are becoming increasingly richer, the middle class is shrinking, and the inequality gap rises inexorably in an “endless inegalitarian spiral” (Piketty 2013, 515). This is an almost inevitable economic consequence since

[w]hen the rate of return on capital exceeds the rate of growth of output and income, as it did in the nineteenth century and seems quite likely to do again in the twenty-first, capitalism automatically generates arbitrary and unsustainable inequalities that radically undermine the meritocratic values on which democratic societies are based (Piketty 2013, 1).

Current capitalism

Keynes acknowledged that the entrepreneur would continue to strive to better him or herself, averring that “[t]he strenuous purposeful money-makers may carry all of

us along with them into the lap of economic abundance” (Keynes 1930b, 36), harking back to the *laissez-faire*/invisible hand theories of Adam Smith. Keynes labelled this type of individual “[t]he “purposive” man [...] always trying to secure a spurious and delusive immortality for his acts by pushing his interest in them” (Keynes 1930b, 37). This typifies Ralph, the fictional entrepreneur in *Star Trek* and the Ferengi race. Keynes even conceded that if and when his post-scarcity utopia arrived,

there will still be many people with intense, unsatisfied purposiveness who will blindly pursue wealth – unless they can find some plausible substitute. But the rest of us will no longer be under any obligation to applaud and encourage them (Keynes 1930b, 37).

Keynes thus partially acknowledged that the “needs [...] of the second class” (Keynes 1930b, 36) may pose obstacles since he saw “the solution to the economic problem as limited by human nature (unlimited wants)” (Chernomas 1984, 1009). Interestingly, Saadia, the author of the upcoming book *Treconomics*, observed that such individuals might still be satisfied as

[s]elf-interest, conflict and competition may certainly exist but the reward for winning in the marketplace [...] is of an intangible but no less real nature: glory [...], merit, prestige and recognition, then self-interest will drive at least some individuals to excel at their trade and to shoot for the moon in their endeavors. The products of their combined labor will be available to everyone at no cost. Society will reap the benefits of countless strokes of genius [...] Your currency is your good name (Saadia, *Treconomics*, chapter 1).

This is witnessed several times in the canon when individuals refer, for example, to “Doctor Noonien Soong [...] The foremost authority in cybernetics” (Scheerer, “The Measure Of A Man”), “Galen: the foremost archaeologist in the Federation” (Frakes, “The Chase”), “the foremost space trader of our time. Carter Winston has acquired a dozen fortunes only to use his wealth time and again to assist Federation colonies in times of need or disaster” (Sutherland, “The Survivor”). However, Keynes made an arguably unwarranted assumption. He

seems to think that the consumption needs of human being can be satisfied; this suggests his belief that the dominant characteristics of capitalist society, once they have served their purpose, can and should be discarded (Chernomas 1984, 1009).

But man is more like Scrooge, avidly collecting wealth and often indulging in “conspicuous consumption” as a public display of economic power in order to maintain a perceived social status and to preserve a spurious sense of superiority (Veblen 1899). This is evidenced by Ralph Offenhause, the financier (Conway, “The Neutral Zone”) and by the entire Ferengi race. Indeed, in *Star Trek*, primitive races often parody the application of Bataille’s theory of consumption that refers to “the accursed share” that excessive and non-recuperable part of the economy that is produced in excess of need and gratuitously wasted without gain to society as a whole, such as in sumptuous spectacles, the construction of monuments, warfare etc (Bataille 1849).

This is contrary to the precepts of *Star Trek’s* Federation and to many contemporary philosophers and writers, as summarised by Hemingway: “There is nothing noble in being superior to your fellow man; true nobility is being superior to your former self” (quoted in Nielsen et al, 11). Keynes opined that the rate at which his utopian predictions would occur depended on only four things:

our power to control population, our determination to avoid wars and civil dissensions, our willingness to entrust to science the direction of those matters which are properly the concern of science, and the rate of accumulation as fixed by the margin between our production and our consumption; of which the last will easily look after itself, given the first three (Keynes 1930b, 37).

He also urged humanity to introduce gentle measures for the eventual post-scarcity era, as “there will be no harm in making mild preparations for our destiny, in encouraging, and experimenting in, the arts of life as well as the activities of purpose” (Keynes 1930b, 37). Keynes’s theories prefigure the currency-less Federation, but does not sufficiently recognise the current evolution toward a “globalised patrimonial capitalism” due to the hoarding of global wealth by a relatively small proportion of individuals (Piketty 2013, 534).

It has been noted that “there is no natural, spontaneous process to prevent destabilizing, inegalitarian forces from prevailing permanently” (Piketty 21), leading to the conclusion that active measures must be taken in order to approximate the Keynesian ideal. Several suggestions have been put forward and one relatively simple application is education. Piketty states that “the main force in favour of greater equality has been the diffusion of knowledge and skills” (Piketty 22). This is evidenced in “the Scandinavian countries, where wage inequality is more moderate than elsewhere, [who] owe this result in large part to the fact that their educational system is relatively egalitarian and inclusive” (Piketty 307). A general improvement in global population education levels would not only reduce the haves-haves not gap but also prepare humanity to enjoy the attendant leisure that a post-scarcity economy would bring about.

Conclusion

At one point, 24th century *Enterprise* crewmembers bring Samuel Clemens (Mark Twain) to the future on board the *Enterprise* (Landau, “Times Arrow” Part 2). Clemens is disbelieving, clearly thinking that what he is seeing is too good to be true. He maintains

Well, that’s the problem I see here. All this technology, it only serves to take away life’s simple pleasures. [...] I’m not so impressed with this future. Huge starships, and weapons that can no doubt destroy entire cities, and military conquest as a way of life? [...] Well, I know what you say, that this is a vessel of exploration and that your mission is to discover new worlds. [...] That’s what the Spanish said. [...] And the Dutch and the Portuguese. It’s what all conquerors say. (Landau, “Times Arrow” Part 2)

Counsellor Troi however explains:

I think what we’ve gained far outweighs anything that might have been lost. [...] We live in a peaceful Federation with [...] thousands of species that we’ve encountered. [...] The people you see are here by choice. (Landau, “Times Arrow” Part 2)

Clemens remains unswayed.

So there’re a privileged few who serve on these ships, living in luxury and wanting for noth-

ing. But what about everyone else? What about the poor? You ignore them. [...] Young lady, I come from a time when men achieve power and wealth by standing on the backs of the poor, where prejudice and intolerance are commonplace and power is an end unto itself. And you're telling me that isn't how it is anymore? (Landau, "Times Arrow" Part 2)

And Troi gently explains "poverty was eliminated on Earth a long time ago, and a lot of other things disappeared with it. Hopelessness, despair, cruelty" (Landau, "Times Arrow" Part 2), finally persuading Clemens that the Federation is indeed an ideal to which humanity should aspire.

Will Keynes ever be vindicated? A Federation type utopia can only be achieved by a concerted global effort that is glaring in its absence. However, it is possible that new technologies give "the possibility of a far greater progress still" (Keynes 1930a, 98) and advances in nanotechnology, artificial intelligence and robotics, automation and 3-D printing may forcefully precipitate a post-scarcity economy.

Manu Saadia, the author of the upcoming book *Treconomics* notes

the greatest sense of wonder [...] from Star Trek comes not from the warp drive, the stars, new life and new civilizations, but from its depiction of an uncompromisingly humanist, galaxy-spanning utopian society. [...] our potential for social and economic improvement (Saadia, *Treconomics*, chapter 1).

Until then "wealth is so concentrated that a large segment of society is virtually unaware of its existence. [...] That is why it is so essential to study capital and its distribution in a methodical, systematic way" (Piketty 259). This is an issue of global importance, one that affects all of humanity. "Indeed, the distribution of wealth is too important an issue to be left to economists, sociologists, historians, and philosophers" (Piketty 2) since unfortunately, "[s]ocial scientific research is and always will be tentative and imperfect" (Piketty 3).

Science fiction may prove useful (as it does in so many other fields of study) in speculating where the future may lead us and possibly chart us away from courses that might be detrimental to the overall economic development of mankind. Our studies might lead us toward a utopian future that approaches the "Epicurean approach

to life by citizens of the Federation with their "balanced approach towards life. Never too much, never too little" (Bole, "Liaisons") (Grech "Picard," 22), a future "where-in humanity has enlightened and transcended itself and explores its playground, the entire galaxy, with wonders still to be discovered" (Grech "Picard," 22).

In *Treconomics* the absence of money implies that status is not tied to economic wealth or discretionary spending. Conspicuous consumption and luxury have lost their grip on people's imaginations (Saadia, *Treconomics*, chapter 1).

All Federation denizens are therefore free to pursue the goal of self-actualisation, to transcend levels of physiological, psychological and social needs in order to obtain fulfilment of personal needs in terms of life's meaning (Maslow). This position may become possible in a post-scarcity economy since the resulting economic surplus could be channelled into the arts and the sciences, including the exploration of space and time – an enviable goal that is inarguably worth aspiring to.

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