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See Appendix COM – Trading with Scene-snitching Aliens Example
See Appendix ENVAL – Enhanced Value & Looting Summary

“The captain might navigate a starship and the explorer might detect useful civilizations by the most tenuous of signs, but in the final clutch it was the trader ... who faced the aliens and who plucked out of their minds and culture that which was useful and give in return something they found useful.”

– Isaac Asimov, “Nothing for Nothing” (1979)

Interstellar Barter: As discussed previously in What You Got, When You Get, 2 Taxation & Census, p. 302, *supra*, the basic economic unit of this game is the Resource Point (RP); the game addresses only resources. There is no ‘monetary system’ or ‘money’ in the game.

Given the awesome complexities of the money markets and values on our one little planet, there is some doubt as to whether such a system could be made to work in interstellar civilization between widely-separated worlds, with minimal interaction, where each world is a civilization onto itself. Imagine, for example, a ‘water planet’ with only a few scattered inhabited islands,¹ and vast distances of ocean in between; among the premodern Polynesian island cultures of the south Pacific, the most commonly traded items, beads and sea shells – easy to transport on small boats – were the only items that approached any kind of ‘currency’ as they circulated through the islands. In short, the basic interstellar commerce system depicted in this game is at best crude.

➤ **Intrinsic Value:** The “intrinsic value” of a resource or thing is the inherent value of the object in a particular economic location. In our own world, the most common example used for ‘intrinsic value’ is sports memorabilia, for example, a famous player’s autograph on a baseball vastly inflates the value of the baseball which, by itself, has low intrinsic value.

✓ Babe Ruth signed far more baseballs after he died than he did in his lifetime.

A baseball in an industrialized Western nation has low ‘intrinsic value’ because they are mass-produced at low cost from readily available materials, they are commonly available items, and they are not necessary for everyday survival; a baseball is a luxury. The MLB uses over 160,000 baseballs in a season, about 90-120 baseballs per game. If the baseballs were transported to another country, where the people are poor, the value of the baseball might increase because they are imported (arbitrage), and are a rarer and highly desired commodity in that country, or they might be worthless in the sense of unsellable because poor people don’t have spare money (or desire) to buy them. Consumerism requires both.

In interstellar economics, it can be assumed that every colony planet will eventually have or develop an excess of a resource, or have or develop a resource that is of little or no value to that colony planet except that it has value for trade elsewhere. Cargo Ships pick up resources from places where there is an excess, and where the resource has a relatively low ‘intrinsic value’ and by virtue of transporting them to places where they are needed and in demand, increase the value of those resources upon safe arrival at the destination.

✓ Resource has been used very broadly in this game system, to mean anything that is useful and necessary to the functioning of civilization and/or everything, whether tangible or intangible, that is available for a civilization to draw upon in carrying out its basic functions or to perform a necessary task. In this game, resource and Resource Points (RPs) have been used for raw materials, manpower, intellect, trained special-

ists, food and basic living items, as well as high-end manufactured items, such as machinery, metals and alloys, and even stardrives. One can have all the resources imaginable – for example, being the sole occupant of a treasure-filled pile of rocks on the Giza Plateau – and not have a RP in Varanasi. Hint: You need Cargo Ships!

- **Enhanced Value:** Enhanced value – a key concept in GGDM commerce – is obtained by comparing the ownership of the Cargo Ship and the colony where it is being Loaded or Unloaded, *if they are different*, the cargo has *enhanced* RP value to the recipient. Enhanced value simply represents *boundary control function* and boundary crossing, even if the origin of the RPs Unloaded is the same population type as the colony receiving them.
 - ✓ Enhanced Value accrues only to the **alien** recipient of the RPs at the time of receipt in any qualifying situation. ‘Double enhancement’ is possible if RPs Loaded from an **alien colony** are subsequently received by (Unloaded to) another **alien colony**.
 - ✓ The true value of receiving alien RPs is not having to subtract RPs from the Treasury, plus inflated local GDP when downloaded, and building diplomatic contacts.

This system is deliberately vague and simplistic; the game does not track origin of RPs or the origin, movement and activity history of ships, and players should resist the urge to exploit ‘loopholes’ in the system.² It is up to the participants to look or not look, to use in the game if necessary and suitable to the story, and to be honest and play the game rules in good faith.³

“[Trader] ‘I pointed out that a smaller stone-tipped stick could be hurled forward with greater force and effect and with longer range if a cord under tension were used as the mechanism of propulsion.’

The explorer said, ‘Such devices have been encountered among primitive intelligences which were, however, far advanced beyond these. Paleontologists call it a bow and arrow.’

The captain said, ‘How could the knowledge be absorbed? It couldn’t be, at this level of development.’

[Trader] ‘But it was. Unmistakably. ... Surely you do not think I would have taken these art objects were they twenty times as valuable, if I had not been convinced that I had made a return? Nothing for nothing, Captain.’”

– Isaac Asimov, “Nothing for Nothing” (1979)

Marketing: Prior to departing for a distant colony with a load of RPs, or to pick up a load of RPs, it is helpful to know where the cargo might be in demand.

Activation of the Commerce Power for the purposes of Marketing requires one Act, and allows a position to obtain *with certainty* advance knowledge of the *enhanced value* by percentage in the value of the cargo if Loaded from or Unloaded at non-sovereign colonies within the Operational Flight Limitation (i.e. ‘the range’) of the Cargo Ship (excluding those located in the same system as the Cargo Ship is currently). Thus, the activation must specify a target Cargo Ship or ships that are currently located at a colony (ownership is irrelevant). There is no Power Activation check for Marketing, this is the only purpose of Commerce Power that is not possible to fail.

- ✓ Activation of the Commerce Power for the purpose of Marketing is a commitment to activation of the Commerce Power on the following Regular Turn for purpose of Trade Mission (*ut infra*).

- ✓ In the Actions submitted to the Concierge by the position, the position may list one known non-sovereign colony within range of the Cargo Ship(s) for each currently undisrupted Government Title held by the position.
- ✓ In return, the Concierge will provide the *enhanced value* expressed in a percentage both if cargo is loaded from or delivered to any of those locations (i.e. one activation).
- ✓ The values provided by the Concierge are only valid *if* the target Cargo Ship departs for any of those locations in the next Regular Turn. If not, the Marketing is wasted.

Marketing is never required, Cargo Ships may always depart for any legal destination within their range, with or without cargo, and may travel blindly to whatever market is at the destination. Note that, in some instances, the Concierge may manually adjust the market values (by Intervention) if a location has received too many unloads or loaded too many ships recently, or for other circumstances; but in most cases, market value will be determined by a die roll.

- ✓ Marketing cannot be used or applied to Trucking Transactions as they are of a different structure than standard interstellar trade. See Flea Market 4 Commerce, p. 1225, *infra*.
 - ✓ Marketing cannot be used or applied to Looting, see Black Market, 3 Commerce, p. 1211, *infra*, but they do still receive enhanced value when Unloaded.
- Price-Lock Ness: The Marketing Activation must function as a ‘price lock’ (even if not realistic) otherwise, it is pointless in the game. As with some other GGDM rules, this is a concession to game necessity. The economic fallacy of the Marketing Activation in GGDM is that it implies perfect knowledge and perfect competition – the very same features alleged as advantages to centralized managed economies, like the Soviet Union which failed miserably.
- ✓ “Since human beings are finite and temporal, praxeology pays attention to the time dimension of human action. From that attention to time, praxeology quickly hones in on the idea of *future uncertainty*. Uncertainty means that the future is ‘somewhat predictable,’ i.e., it is neither completely determined nor completely random. Future uncertainty is conclusively deduced from the axiom of intentional human action. If future outcomes were completely known with certainty, *no ends would be chosen*, as we would simply wait for those outcomes to occur. Conversely, if we thought the future were completely random, *no means would be selected*, since we would not think that means could help achieve ends. The emphasis on time considerations and on future uncertainty is one of the main reasons Austrian economists typically reject basic neoclassical economic market models that invoke idealizations like ‘perfect knowledge’ or ‘perfect competition.’ Such models imply instantaneous adjustments to prices, which cannot conceivably occur in real human action. Austrian economists believe these models are flawed and must be rejected.” – Michael Accad, M.D., “An introduction to praxeology and Austrian school economics,” alertandoriented.com (blog), April 13, 2016 (emphasis in original).

Participants are invited to give the GGDM Marketing Activation some thought. One might try to imagine how it would actually work with Cargo Ships (‘tramp freighters’) going wherever they think there is a market for their cargo or to find a cheap load, or it might be that in future interstellar civilizations, through means unknown to us currently, the neoclassical models of perfect knowledge and perfect competition might be realized? GGDM inherently assumes much of what is not now thought possible.

- ✓ Marketing is simply a ‘marketing’ tool – obtaining advanced knowledge of the enhanced value of the RPs if loaded or unloaded at target non-sovereign colony(s) – whereby a position can use Marketing to negotiate trade at an **alien colony** for enhanced value. Marketing takes no account of the origin of the RPs (which could theoretically be the same as the colony to which they were unloaded); the game information does not track the origin of RPs or the activities of ships.
- ✓ Loading RPs at an **alien colony** then Unloading them to the same colony for enhanced value both ways is called ‘**porting**’ in GGDM and *violates the spirit of the system*. The cost of this, constant use of Scenes and Power Activations, and **apostasy** risk, might be deemed by some to be worth the *double enhanced value* at the colony, but the RPs can only be used at that colony limiting their ‘unjust’ enrichment potential slightly. The Concierge may also notice and probably should forbid it unless some convincing rational and extra-rational reason (as in very imaginative) can be supplied.

“Mercantilist theory and practice should be placed within the context of the age – a time of excessive international warfare, internal political strife, crop failures, severe climactic variations, defective consumption, insufficient distribution, and depressed prices alternating with scarcity-provoked inflation. Governments felt obliged to intervene in the economic life of states in order to find ways of combating the gloomy prospects.

Jean-Baptiste Colbert, Louis XIV’s controller-general of finance, was the most energetic of the experimenters. He persuaded his king to raise tariffs, regulate manufacturers, establish and underwrite commercial companies, and encourage the immigration of foreign craftsmen. He also convinced his king to go to war in order to crush commercial rivals and take over their markets. Louis needed little encouragement to merge his dream of dynastic glory with Colbert’s mercantilist vision. ... War was the crudest weapon of the mercantilists. It promised the quickest solution but entailed the gravest of risks. Tariff barriers against manufactured goods offered a more subtle approach. ... Indiscriminately applied tariffs have a boomerang effect though.”

– Raymond Birn, [Crisis, Absolutism, Revolution: Europe 1648-1789](#) (2nd Ed., 1992), p. 53

Tariff Walls: Any of the preceding sound familiar? The ghost of Colbertine mercantilism remains. There is caterwauling about tariffs and import trade imbalances around every national election. The entire current economic system was created in large part by the obligatory government intervention to fight the Great Depression and subsequent recessions. The difference is that actual war, with bullets, in the current world order, is too risky; e.g., the 1990 Iraqi invasion of Kuwait, whatever the reasons offered, was widely seen as an attempt to crush and annex a commercial rival and gain a greater share of the oil market. The war is now in cyberspace.

Before the Big Bopper (“Chantilly Lace”): Mercantilism vs. Consumerism formed one of the great, intricate, protracted socioeconomic struggles of Europe during the 16th to 18th Centuries. Mercantilism, practiced famously by France, emphasized the production of goods for export and on the accumulation of cash reserves through positive trade balance.

The underlying assumption of the time was that the only people who had money to spend were the wealthy and thus, industries that produced exports that appealed to the wealthy, and the greatest cash surplus, were encouraged and supported by the state. France became famous for wines, Chantilly lace (before the Big Bopper), clothing fashions, perfumes, cosmetics, hats, shoes, pastries and confections, art which they exported for high profits around the world.

- ✓ “The glass of Saint Gobain, silks of Lyon, tapestries of Beauvais, Chaillot, and the Gobelins factory of Paris, the embroidered cloths of Arras and Carcassonne – all became by-words for quality and beauty among leisured customers. France became the workshop of Europe’s aristocracy. Colbert could conceive of no other kind of market. He set the tone of *luxe* for French products that haunts its industry to this day.” – Raymond Birn, Crisis, Absolutism, Revolution: Europe 1648-1789 (2nd Ed.), p. 55.

Consumerism, conversely, encourages the accumulation and consumption of goods and services. Mercantilism plays into consumerism, however, consumerism makes the assumption that most people have some spare change, and that if they have spare change and see something they desire, they will buy it if they can afford it. Consumerism is instantly familiar to the reader because, when combined with the industrial revolution of the 17th to 20th Centuries, it was wildly successful. Manufacturers can make a huge profit selling cheaply mass-produced goods to common people in their own country and in other countries in exchange for their spare change; especially if the goods are consumable and the sale is repeatable. Simply put, consumerism has a larger market base at a smaller *per-unit* profit than mercantilism, and also works domestically in a political and social view by meeting the needs of the population and driving new products.

Both have always existed and still exist as local and national business or market strategies. What made the rivalry so prominent was the opposing models of France (agrarian, religious) and Britain (urban, middle class) and their conflicts for colonial, naval and world market hegemony (see 2 Disruption, EN 9, p. 280, *supra*). France, resisting technological and socioeconomic change and industrialization, lost to the Anglosphere for that and other geopolitical reasons.

- ✓ “In the almost complete absence of other sustained macro-political and social narratives – concern about global climate change notwithstanding – the pursuit of the ‘good life’ through practices of what is known as ‘consumerism’ has become one of the dominant global social forces, cutting across differences of religion, class, gender, ethnicity and nationality. It is the other side of the dominant ideology of market globalism and is central to what Manfred Steger calls the ‘global imaginary.’” – Paul James and Imre Szeman, Globalization and Culture, Vol. 3: Global-Local Consumption (Introduction) (2010) [Introduction section is available on academia.edu for free].

The base assumption of the discussion of domestic subsistence ‘comfort level’ in GGDM (see Resources, 2 Taxation & Census, p. 301, *supra*) is probably shaded toward consumerism because it was written by a late 20th Century person of Western culture, for readers of the same milieu, though the core arguments of domestic subsistence are independent of consumerism. Positions in GGDM however, might develop forms of mercantilism or enhanced export values to certain well-known markets by use of Writs, Specialized Colonies, Commerce or Marketing Colleges.

- ✓ “Some contemporary theorist already saw the shortcomings of Colbertine mercantilism. The great French marshal Sébastien Le Prestre de Vauban (1633-1707) pleaded for a system of priorities that would place the welfare of laboring poor ahead of a favorable balance of trade ... Vauban advocated state responsibility for full employment even if it meant giving away exports, and called for a graduated tax based on income, not rank. ...the legal officer Pierre le Pesant de Boisguilbert (1646-1714) pointed out mercantilism’s failure to grapple with maldistribution of wealth. *Money, he believed, had become the master, of commerce not its servant.* ... As might be im-

agined, Colbert’s theories found severe critics across the English Channel.” – Raymond Birn, *Crisis, Absolutism, Revolution: Europe 1648-1789* (2nd Ed., 1992), pp. 55-56 (emphasis added, this is still more true today, e.g., Wall Street, FINRA).

- In the remainder of the quoted paragraph, Mr. Birn goes on to discuss the Fable of the Bees (1714), as one of the main severe criticisms of Cobertine mercantilism which is also one of the original arguments for consumerism.

Consumerism has also not solved maldistribution of wealth and thus is not better in that sense (as Oxfam’s annual global wealth reports show), in fact, many feel that it has made it worse or is the culprit (noting however, that maldistribution of wealth has always existed *as long as there is force of law*, e.g., “An imbalance between rich and poor is the oldest and most fatal ailment of all republics.” – Plutarch). See *Economic Inequalities*, p. 246, and EN 8, p. 251, 3 *Entropy*, *supra*.

➤ The Paradox of Thrift: Consumerism is paradoxical to savings as a concept of wealth accumulation and moral good. It is called the Paradox of Thrift; generally that more saving and less spending as a widespread sociocultural, socioeconomic value is actually bad for the economy leading to decreased output, decreased demand, and unemployment in spiraling effect. Yet in the centuries before consumerism took hold, frugality and savings were seen as both morally virtuous, and the means to wealth accumulation (excepting the aristocracy and nobility *who were expected to be extravagant* to benefit others by employment and trade). The advent of consumerism thus tracks with general secularization in the West.

- ✓ “The paradox of thrift ... is a paradox of economics. The paradox states that an increase in autonomous saving leads to a decrease in aggregate demand and thus a decrease in gross output which will in turn lower total saving. The paradox is, narrowly speaking, that total saving may fall because of individuals’ attempts to increase their saving, and ... that increase in saving may be harmful to an economy. Both the narrow and broad claims are paradoxical within the assumption underlying the fallacy of composition, namely that what is true of the parts must be true of the whole. The narrow claim transparently contradicts this assumption, and the broad one does so by implication, because while individual thrift is generally averred to be good for the economy, the paradox of thrift holds that collective thrift may be bad for the economy. It had been stated as early as 1714 in The Fable of the Bees, and similar sentiments date to antiquity. It was popularized by John Maynard Keynes and is a central component of Keynesian economics. It has formed part of mainstream economics since the late 1940s.” – from Wikipedia article, “Paradox of Thrift,” January 17, 2019.

Expression of such sentiments in late antiquity would have been clearly anti-Christian (in the sense of virtues and vices), as Christianity then inveighed mightily against Roman vice and excess, as leading to the martyrdom of Jesus Christ and many of the Apostles.

- ✓ See also the Parable of the Broken Window introduced by Frédéric Bastiat in 1850 which makes a somewhat similar economic argument for consumerism.
- Consumerism Modernity: Consumerism became historically intertwined with, or perhaps caused in large part, industrialization of manufacturing and unionization of labor. Though probably not supporting mercantilism, Dean Inge in the early 20th Century still expresses the English aristocracy’s skepticism of consumerism that relates to unionized labor:

- ✓ “The manufacture of goods to be exchanged for food may fall off owing to foreign competition, a result which is likely to follow from a rise in the standard of living, for the labourer then demands higher wages, and consumes more food per head, which of itself must check fertility, since the same amount of food will now support a smaller number. The delusion shared by the whole working class that they can make work for each other, at wages fixed by themselves, is ludicrous; a community cannot subsist ‘by taking in each other’s washing.’ Or the supply of importable food may fail by the peopling up of the countries which grow it.” – Dean William Ralph Inge, Outspoken Essays, “The Future of the English Race” (The Galton Lecture, 1919), available for free on the Gutenberg Project [notice the awful ‘X-up’ form existed in 1919?].

Dean Inge is referring to the Malthus concepts, which have so far, been checked by expanding technology which has exploded crop yields per acre and created stored surpluses that required government market controls and subsidies to maintain prices.

- ✓ “The second problem ... is that technological optimists argue that we don’t really [need] to worry about resources, that all we need are free markets and the price mechanism. That as long as there are free markets that whenever resources start to become scarce, the market signals that it’s time to innovate, that there will be rewards to innovation. And so the assumption is that as a resource becomes scarce, people develop – put effort into developing a new resource or finding more efficient ways of using the existing resource or developing new technologies and so forth. This is a hard argument to counter because up until this point, the technological – excuse me – the technological optimists have been correct. We have maintained the most complex society humanity has ever known, and we have maintained it up to this point...” – Joseph Tainter, podcast interview on PeakProsperity.com, by Adam Taggart, June 25, 2017.

Inge’s and Tainter’s commentaries also relate back to the domestic subsistence discussion, see 2 Resources and Red Planet, 2 Taxation & Census, pp. 301, 307 respectively, and Natural Assumptions, 4 Taxation & Census, p. 327, *supra*.

- ✓ See also discussion of the Inge Process, 5 Diplomacy, p. 1161, *supra*.

“Germany had been forced to depend largely on synthetics after conquering the productive capacity of a highly industrialized continent. Japan’s problem was exactly the reverse. After conquering endless supplies of raw materials, Japan could depend only on the limited manufacturing potential of the home islands. If the two Axis Powers had managed to pool such resources – if they had been true political and geographical instead of unilateral partners – the difficulties of their enemies might have been multiplied. But in the strategic sphere, the Allies were able to wage a war on interior lines, with the bombing plane serving as the most effective weapon against Germany, and the submarine as well as the bombing plane against Japan.”

– Lynn Montross, War Through the Ages (3rd Ed., 1960), p. 957 ⁴

Use Two Hands Please: Commerce Power Activations for Loading or Unloading Cargo Ships require that both the colony and the ship(s) that are the target of the activation check to see if they obey the Power Activation.

The colony should be checked first because if the workers are on strike (i.e. fail to obey the Power Activation) then there is no need to check the target ships and the activation will fail. If

the colony obeys the Power Activation, then each ship involved must also check to see if it obeys the Power Activation, and if so, Unloading or Loading will proceed. If a ship fails to obey, it will not perform as ordered, but other ships might if multiple ships were targeted. An active Epistemological Constructural Element at the colony or on a ship, allows Enlightenment to be applied to their rolls if it was designated for that Power Activation.

- ✓ If the Loading or Unloading is occurring at a non-sovereign colony, the colony is *first* checked to see if it ‘obeys’ the Power Activation (i.e. accepts alien goods) as if the colony owner had activated the Load or Unload Resources at that colony. If the colony fails, the alien goods are not Loaded from or Unloaded to the Colony, regardless of the willingness of the Cargo Ships involved. Enlightenment can be used to reroll failed die rolls if the ships have active Epistemological Constructural Elements (see Skool Tyme, 2 Constructural Elements, p. 190, *supra*), *but cannot be applied to the alien colony’s roll* because there is no Power Activation. If the **alien colony** fails first, rolls for the ships are not necessary and Enlightenment will not be used.

Uploading: Cargo Ships *that begin the turn* in a system with an eligible colony may Load RPs from that colony by activating the Commerce Power for the purposes of Loading.

- ✓ Eligible colony is defined as either a sovereign colony or a non-sovereign colony where permission has been given by the owning position to Load RPs from the colony. Colony political status is irrelevant to eligibility to Load RPs.

A colony may not load more RPs to the Cargo Ship in a turn than the colony would have produced if it had been taxed at the beginning of the turn (i.e. the GDP limit, see Gross Domestic Product, 1 Construction, p. 662, *supra*), with the exception of Looting (see 3 Commerce, p. 1210, *infra*). As discussed in 1 Construction, *supra*, a colony may not spend more in a turn on activities at that colony than the colony would have produced if taxed at the beginning of that turn (see Gross Domestic Product), and this applies to Loading RPs to Cargo Ships as well as Construction Activities. The RPs loaded to Cargo Ships (similar to RPs spent on Construction activities) are subtracted from the position’s Treasury. RPs loaded to alien Cargo Ships between Regular Turns, count toward the colony’s GDP on its owning position’s next Regular Turn.

- ✓ Ships which execute a short movement arrive at the end of the same Regular Turn thus, a Cargo Ship that completed a short movement would be at the colony at the beginning of the next Regular Turn for the purposes of Loading RPs. See Space Hop, 2 Movement, p. 850, *supra*.
 - ✓ Loading is also used by the receiving Cargo Ship to transfer RPs between Cargo Ships owned by different positions if they both begin the Regular Turn in the same colony system (permission is obtained by the previous Unload action issued by the owning position to the alien Cargo Ships involved), see Change for a Trillion, 1 Commerce, p. 1185, *supra*.
- **Front End Loading:** Cargo Ships each have a limit on RPs that can be Loaded onto the ship, which is governed by the Cargo Ship’s Patent and any improvements or enhancements that may have been made to the Cargo Ship Patent; a Cargo Ship may never Load more RPs than its capacity. Upon activation of the Commerce Power for the purpose of Loading, the position must include in the Actions the exact number of RPs to be Loaded to each Cargo Ship at that location.

- ✓ If information is missing from the Actions, the Concierge will not hold up the game or inquire, rather, the Actions are executed as received.
 - ✓ If a position fails to inform the Concierge of what is to be Loaded, it is a wasted Power activation.
 - ✓ If there are not sufficient RPs in the Treasury to pay for the Loading, the Cargo Ship will Load what is available.
 - ✓ If the activities at the colony on that turn exceed the local GDP, Construction activations will take precedence over all others.
 - ✓ Note that Loading from a *Conquered Colony* is automatically Looting (see 3 Commerce, p. 1210, *infra*) and will trigger the mechanics related to Looting.
- **Back End Loading:** Cargo Ships may Load RPs from eligible **alien colonies** (i.e. colonies owned by any other position, regardless of Native Population Type) at *enhanced value* (*ut supra*, p. 1193). If the **alien colony** is on a Balkanized planet with a friendly colony, the owner of the Cargo Ships may provide the required Scene. Otherwise, the Scene may be ‘snitched’ from the **alien colony** if one is available (see Scene Snitching, 3 The Sidereal Stage, p. 124, *supra*). If there is no Scene on the **alien colony** to be used for the Commerce Power activation, the Load actions will fail, and the Power activation will be wasted.
- ✓ The owner of the **alien colony** is never required to activate the Commerce Power to Load RPs to another position’s Cargo Ships, only the owner of the Cargo Ships needs to activate the Commerce Power. But the sovereign must still grant permission.
- Actual RPs* (not enhanced RPs) loaded from the **alien colony** will be immediately subtracted from the alien position’s Treasury *and count against the alien colony’s GDP limit on its owner’s next Regular Turn*. The Load RPs will fail either partially or completely, if there are not sufficient RPs in the aliens’ Treasury at the time of the loading to support the loading.
- ✓ Yes, this is kind of weird. The Treasury is always simultaneously local and non-local throughout the position. It is a quantum smear.
- **Packing It In:** RPs from non-sovereign colonies are Loaded at the *enhanced value* to the Cargo Ship. The amount subtracted from the owner’s Treasury and that counts against the colony’s GDP for the next turn is the unenhanced value of the RPs loaded.
- ✓ For example, if 15 RPs of *enhanced value* were Loaded to another position’s Cargo Ship by a colony, the actual (unenhanced) value at the colony might be 10 RPs (with 50% enhancement) which is the amount subtracted from the Treasury and that counts against the colony’s next Regular Turn GDP.

Except for Looting, a colony cannot upload more in actual value than would be its GDP if taxed at that moment, see Gross Domestic Product, 1 Construction, p. 662. A Load RPs can fail partially or fully if the colony doesn’t have sufficient GDP at the moment of Loading (or RPs in the Treasury).

If the Commerce Power was activated for the purpose of Marketing for Load RPs at the location of the Cargo Ship prior to movement to the non-sovereign colony, that value will be used. If not, then the parties will need to take their chances on randomly determined enhanced value while Loading RPs from one position’s colony to another’s Cargo Ship. This

may result in partially complete Loading and uncertainty as to the amount in the Treasury and the amount of GDP available at the colony on the next Regular Turn.

- ✓ It may be profitable for a position to set up ‘trading post colonies’ on frontiers, through which alien trade passes, but should consider the Power Activations costs of hauling away RPs via Cargo Ships if not immediately used at the colony.
- ✓ Remember while slurping *alien fungi smoothies* and watching a female cat dancer on Nimbus III that Loading, Unloading or transferring anything at an **alien colony** can lead to *apostasy* (see *Alieny Apostasy*, 3 Disruption, p. 283, *supra*).

“Never sell weapons to people who don’t have a sense of humor.”

– Col. Jack O’Neill, *Stargate SG-1* television series

Humor: In current human theory, humor is regarded as a safety valve, an outlet for angst, a condition of *ekstasis* that keeps us sane. Angst, not wonder, is human literature. To wit:

- ✓ “During his 2009 interview for Australian Skeptics’ podcast The Skeptic Zone, Minchin addressed his performance style as one that allows bringing up issues that can be upsetting or judgmental to others, such as the ‘moral hypocrisy about the idea that the Bible is perfect, the only place that you need to go to for your moral guidance...and about, obviously, prejudice in the church, its role in ostracising homosexuals...your defences are down when you’re laughing as well and it’s couched in music. All I’m doing is making things consumable that are otherwise difficult to consume.” – from Wikipedia article, “Tim Minchin” citing to April 2009 interview (http://skeptizone.libsyn.com/the_skeptic_zone_26_17_april_2009).
- ✓ “Everyone experiences pain, of course. But a comedian has the ability to use their anger and intelligence to refocus and reconstruct their pain into entertainment. It’s so obvious that it almost goes without saying, but comedians are generally more intelligent and sensitive than the average person. It’s our undeniably superior (almost god-like) intelligence that made life difficult for us when we were children. We could see through the hypocrisy and illogic of our parents and teachers, but because of our age and size we couldn’t do anything about it. The more we pointed out the foolishness of our ‘superiors,’ the more they kept us down. But just as pressure and heat transform coal into diamonds, it’s that frustration, social pressure and the heat of anger that transforms us into comedians.” – from iComedy TV.⁵
- ✓ Merriam Webster online dictionary at *ecstasy*: *ékstasis* ‘displacement, mental distraction, astonishment, trance.’

Displacement and mental distraction means to stand outside ourselves in this context, humor lets us stand outside ourselves, be distracted from reality.

- ✓ “I fear the comic novel is in retreat. A joke is by definition politically incorrect – it assumes a butt, and a certain superiority in the teller. The culture won’t put up with that for much longer.” – Martin Amis, interview with Carol Burns, Washington Post, November 7, 2003.

Humor is, of course, one of those services *we spend money for...* handing over paper notes with no intrinsic value at the door.⁶

“Music files and downloading have indeed changed the currency of music to a great degree.” – Henry Rollins

“Downloading is definitely on the rise, but not because it’s free – that’s probably third on the list – but because it’s immediate and the selection is virtually unlimited.” – Don Rose (aka Dr. Don)

“Illegal downloading, digital cheating, and cutting and pasting other people’s stuff may be easy, but that doesn’t make those activities right.” – G. Hannelius

Downloading: RPs may be transferred from a Cargo Ship to any colony by activation of the Commerce Power for the purpose of Unload RPs targeting the colony and Cargo Ship. The ship is not required to *begin* the turn in the system, it may arrive at the beginning of the Regular Turn. Both the Cargo Ship and colony will be checked, as previously explained, to see if they obey the Power Activation to Unload RPs; Enlightenment (a club) might be applied (*ut supra*, p. 1202).

- ✓ Thus, a Cargo Ship can ‘drop and dump and run’; the Unload RPs activation will be processed with any Construction Power activation at the colony (see Material Handling, 1 Construction, p. 664, *supra*) and Movement Power activations process after Construction Power activations in the normal order of processing Power Activations. This may be extremely useful in Blockade Running, see 4 Commerce, p. 1233, *infra*.

RPs will only be Unloaded from *friendly* (i.e. sovereign) Cargo Ship(s) at a sovereign colony in a Regular Turn that would be sufficient to satisfy the colony’s needs for that turn, up to the limit specified in the Unload action. This may mean that some, all, or few of the RPs onboard a Cargo Ship will be Unloaded as a result of the Commerce Power activation for the purpose of Unloading RPs at that colony. RPs received from Unloading Cargo Ships will be spent first for the colony’s Regular Turn activities and any remainder will be subtracted from the position’s Treasury.

- ✓ These rules prevent wastage of RPs *within* the position’s system, because unused RPs at a colony are lost at the end of the Regular Turn. Thus, friendly Cargo Ships at a sovereign colony will only download what is necessary, up to the limit set in the action; the remaining RPs will remain onboard the Cargo Ship and are not lost.
 - ✓ Unloading RPs is also used by the sending Cargo Ship to transfer RPs between alien Cargo Ships if they both begin the Regular Turn in the same colony system, see Change for a Trillion, 1 Commerce, p. 1185, *supra*. As this is not an Unload RPs action to a colony, no *enhanced value* is received regardless of the ownership of the respective Cargo Ships involved. But you can give someone RPs by meeting them halfway.
 - ✓ Unloading RPs at a Conquered Colony does not trigger a Disruption Event and in fact, is useful in bribing ... uh, attempting to convert (uh, subvert) the Conquered Colony, see Conversion, 3 Order, pp. 554-555, *supra*.
- **Intrinsically Profitable:** The RPs received by a colony from Unloading RPs by an alien (i.e. non-sovereign) Cargo Ship will be based on the *enhanced value* of the cargo at that colony,

not the intrinsic value of the cargo as it was Loaded from the source colony. Generally, the value of cargo ('resources') will substantially increase merely by the act of transporting the resources to where they are needed.

- ✓ This would normally be considered 'price arbitrage' except that the game is based on resources and not money, selling is not part of this concept. Rather, this would more properly be termed "resource arbitrage."

The RPs available to the target colony on its owner's next Regular Turn is the *enhanced value* of whatever was Unloaded by the Cargo Ship owner on their previous Regular Turn. Unlike Unloading RPs from a friendly Cargo Ship at the colony, all RPs ordered to be Unloaded by the Cargo Ship owner will be 'dumped' onto the target colony and it is the responsibility of the colony owner to use them or lose them on their next Regular Turn.

- ✓ This is necessary because two positions are each taking their respective Regular Turns separately, as opposed to one position taking a Regular Turn and being able to coordinate the amount of RPs Unloaded to their colony to prevent wastage.
 - ✓ Notably absent from this process is the permission requirement; the Concierge does not require the colony owner's permission to receive Unloaded RPs from an alien Cargo Ship. In the rare instance that this is an issue, it can be dealt with through other means in the game. If the colony owner really does not want the RPs from aliens, combat is an option (like preventing Colony Ships from Landing).
 - ✓ Communication between the positions involved – grey diplomacy (see 1 Diplomacy, p. 1097, *supra*) – is extremely important, with minimum Concierge involvement.
- Arbitrage: Resource Arbitrage does not apply to RPs Unloaded from friendly Cargo Ships to sovereign colonies for use at that colony. This is a ***boundary control function*** in the GGDM rules; RPs Loaded, transported, and Unloaded between colonies owned by a position *occur within the system* and theoretically pass through the imaginary pool called the Treasury. The cost of building anything in the system is the entire assumption of cost by the system.
- ✓ One way to think of this is as a living body. The oxygen breathed into the lungs and transported to the rest of the body in your blood is all just part of the system, the muscles and brain don't receive any enhanced value in oxygen delivered by the blood by virtue of being transported through the body. They simply receive the oxygen you breathed in... all of the parts need each other and need to work together, each doing their own special job.

Conversely, the activation of the Commerce Power for Trade Missions and Marketing address specifically exporting of resources *out of the system* formed by the sovereign position, while accepting RPs downloaded to a sovereign colony by alien Cargo Ships constitutes opening the gate for non-sovereign RPs to enter the system.⁷

- Cha-Ching!: The *enhanced value* received from cargo unloaded to the colony by non-sovereign Cargo Ships is the number of RPs unloaded plus the percentage increase in value determined for that colony. For example, 10 RPs unloaded for a 50% increase in value, would equal 15 RPs value to the colony that would go toward the colony's activities for the next Regular Turn.⁸
- ✓ If *enhanced value* was established through Marketing prior to the departure of the Cargo Ships that value will be used when Unloading RPs to the **alien colony**. This is

important information both to the owner of the **alien colony** (so as to be able to plan their next Regular Turn activities) and to the owner of the Cargo Ship so as to negotiate with the owner of the **alien colony**.

- ✓ If no value was established prior to the departure of the Cargo Ships from their last location, the Concierge will have to determine the value at the time of the Unloading. The Concierge will not inform the **alien colony** or the Cargo Ship owner in advance (no pre-rulings) of the *enhanced value* of the Unloaded RPs at the **alien colony** and this may cause shortfalls and planning difficulties on the next Regular Turn activities.
- ✓ If the amount was established in advance by Marketing, and the Cargo Ship owner certified that the Unload RPs occurred (i.e. no Power Activation failure by the colony or ship), then the colony owner will know how many RPs are waiting to be used; however, if the RPs were Unloaded without previously established *enhanced value*, then the colony owner will have to guess and take chances on how much *enhanced value* is actually available which may lead to wastage.

It is therefore, much better operationally, if the value of the cargo is established through Marketing prior to departure (i.e. information), because Actions will fail if there is not enough RPs in the Treasury to cover the cost of the activities at the colony *or* if the amount taken from the Treasury to cover the colony's activities would exceed the Gross Domestic Product limitations of the colony (see 1 Construction, p. 662, *supra*).

- ✓ Because the game does not look to or specify what exactly is represented by the RPs on a Cargo Ship, the value must be random each time. Participants may find ways to be more specific about cargo if there is a long-established interstellar trade.
- No Tribble at All: Resources downloaded to an **alien colony** are more likely to be raw resources (or 'Shrooms from Proxima Centauri'⁹), or data, with perhaps some low-end manufactured items, with a few art or curiosity objects. Though not a hard universal truth, it is unlikely that stardrive parts, food, ammunition, or weapons repair kits will be delivered to an **alien colony** (especially if they have no sense of humor!).
 - ✓ There is, of course, great potential for Special Operations in Unloading RPs to non-sovereign (alien) colonies; not just in terms of Lodging Missions (see Shipping & Freight, 2 Special Operations, p. 1295, *infra*) but also in the introduction of contraband or even innocent-seeming products and alien lifeforms (e.g., Earth ants in Babylon 5 and Tribbles in Star Trek OS) to wreak havoc on the colony.
 - ✓ There is no direct mechanic in GGDM for transferring anything to or from colonies to Log Ships owned by a different position; only that Cargo Ships can resupply from **alien colonies** (see Cold Lunch, 1 Commerce, p. 1189, *supra*). There are always questions of technological and ergonomic compatibility for starters; any such cases will need to be handled manually through the Concierge.

"We have created in the world in which we live all kinds of things; we have changed our world in all kinds of ways. That's very very clear. We have built the room we're in and we've built all sorts of complex stuff, like computers and so on, but we've also constructed all kinds of fictitious entities that are enormously powerful. So do we say, 'That's a bad idea; it's stupid – we should simply get rid of it?' Well, here's another fictitious entity – money.

Money is a completely fictitious entity, but it's very powerful in our world; we each have wallets, which have got notes in them, but what can those notes do? You can't breed them, you can't stir fry them, you can't live in them, there's absolutely nothing you can do with them that's any use, other than exchange them with each other – and as soon as we exchange them with each other all sorts of powerful things happen, because it's a fiction that we've all subscribed to. We don't think this is wrong or right, good or bad; but the thing is that if money vanished the entire cooperative structure that we have would implode, but if we were all to vanish, money would simply vanish too. Money has no meaning outside ourselves, it is something that we have created that has a powerful shaping effect on the world, because it's something we all subscribe to.”

– Douglas Adams, “Is there an Artificial God?” speech at Digital Biota 2, Cambridge U.K., September 1998 (transcript and audio recording of the more than one hour speech are available free at <http://www.biota.org/people/douglasadams/>)

Exchange: I agree with Mr. Adams that generally, exchanging notes for notes, has little value (except in currency futures contracts). Money must be exchangeable for goods and services that are needed, when, and where they are needed. This is exactly what I thought as an initial objection to BitCoin when I first understood it; any form of money is useless unless it can be exchanged. Still, the image of money as a hollow or hallowed fiction, or artificial god, is prevalent in our literature and songs. Ironically, Pink Floyd’s “Money” (1973) was their best-selling song.

- ✓ Mr. Adams succinctly describes the *power of an interpretation on a civilization level*, money is an interpretation. Cf. Dream Police, 1 Dreamtime, p. 132, *supra*. Conversely, without the concept of legitimized money, believing paper notes have exchange value might seem insane, like offering Monopoly money, landing you in a special institution.

Monopoly Money: Any form of ‘money’ or ‘currency,’ whether slips of government-printed paper or cryptocurrencies, needs to be reducible/tradable into goods and services. Money has little or no intrinsic value, nor can it command resources that don’t exist. See Hrimata Eleison!, 2 Taxation & Census, p. 305, *supra*.

The basic question of interstellar currency (or currency in any setting, but especially interstellar) is if I trade goods that have value for money that has little intrinsic value, what guarantee do I have that I will be able to trade the money elsewhere, at the next planet, to receive goods and services, that the next person will accept money in exchange for their valuable goods and services? Yet, we all know that this problem has been solved because every nation on Earth prints money, which is readily accepted in 99.999% of transactions and allows the government to monitor and manipulate the economy. What makes money work?¹⁰ Civilization-level interpretation.

Most games include monetary systems in any setting from fantasy to interstellar without explanation or justification, e.g.:

- ✓ Traveller RPG uses ‘credits’ (up to megacredits) to make adventuring from planet to planet within the Imperium easy, but is intentionally vague as to the actual mechanisms, for example, I don’t think it was ever explicitly stated whether credits were paper money or simply electronic, though I think the assumption leaned toward the latter. There was no practical explanation of portability, though vaguely, it may have been envisioned as some sort of government issued cryptocurrency.

- One likely reason that the form of the Traveller RPG credit was vague was the wide range of planetary technology levels that made up the Third Imperium; some would not support crypto-currency technology.

It is simply a massive convenience for the designer and the players who are familiar with currency and no one thinks about it, it provokes no thought (i.e. civilization-level interpretation). For all purposes, GGDM does just as well with RPs while also being thought provoking.

- Printing More Money: The question is often asked innocently by children why the government can't just print more money and use it to pay their debts? The answer is illustrative – printing money does nothing but produce more money; nothing of value is added to the economy (because currency notes have very low intrinsic value). Rather, the currency is devalued, e.g.:
 - ✓ “To get richer, a country has to make and sell more things – whether goods or services. This makes it safe to print more money, so that people can buy those extra things. If a country prints more money without making more things, then prices just go up.” – The Conversation, “Curious Kids: why don't poorer countries just print more money?” December 17, 2018.

Thus, the government has taken value from the economy by barrowing and using the money to obtain goods and services, and if it prints money to repay its debts (not unheard of...) it is repaying or returning nothing of value to the economy. That difference is the extent to which the currency used to repay debts is devalued.

- ✓ “A rise in the money stock must, for logical reasons, reduce the exchange value of a money unit. This is because the additional money unit can be used to satisfy an additional end that is necessarily less urgent than the satisfaction of the preceding end. A rise in the money stock will thus necessarily lead to a decrease in the marginal utility of the money unit (compared to the situation in which the money stock had remained unchanged). As a result, a rise in the money stock can never be ‘neutral’ in economic terms. It necessarily leads to a decline in its exchange value – when compared with a situation in which the money stock had remained unchanged; and it should also be noted here that a rise in the money stock affects different market agents differently (the ‘Cantillon Effect’). A monetary policy of increasing the money supply is therefore never ‘neutral’: It necessarily lowers the exchange value of the money unit, and it necessarily benefits some people (namely the first receivers of the new money) at the expense of others (namely the late receivers of the new money).” – Thorsten Polleit, “What Can the Law of Diminishing Marginal Utility Teach Us?” Mises Institute, February 11, 2011.
- ✓ “Example: Almost 2-3 years back 3 eggs could have cost you 100 billion dollar ‘Zimbabwe’ bank note. So basically we are talking about total devaluation of currency. Off course [sic] this is extreme but it shows the capability of [the] inflation beast.” – Anand Bhushan, “Printing Money – Can a Country print Money and get Rich?” Wisdom Times, undated article, but probably from 2012 based on comments.

While most discussions of money are premised on the assumption of paper money, the same effect, in a slightly different way was felt in the Roman Empire whose coinage was based on precious metals, see Praetorian Guard discussion in Household Troops, *et seq.*, 6 Government Titles, pp. 653-654, *supra*.

- ✓ Very few current board games use paper money unless they are required by the theme of the game. Many games use plastic or metal coins (e.g., koku, ducats), others use resource cubes of different colors to represent money, metals, wood, etc. Thus, modern board game economies have become more resource-oriented for the same reasons as GGDM was constructed on RPs, e.g., paper money would be silly in the board game Stone Age (2008) and GGDM is the ‘stone age’ of interstellar culture!

“As the mantra of the 2008 financial crisis goes: The risks on Wall Street have been socialized while the profits have been privatized.”

– William D. Cohan, “How To Fix Wall Street’s Flawed System of Compensation,” New York Times, July 1, 2016

Endnotes.

¹ Commentary: Such a place might be an Optimal Habitability Class planet with a large Maximum Habitability for water-based Major Races in GGDM, while for humans it might be a Hospitable Class planet with a very low Maximum Habitability. It all depends on how you like your fish: live and fresh, or dead and cooked. *gollum!*

² Commentary: Roughly, overall it probably works out even or productively in the end without introducing tracking game mechanics for ship movement and RPs or even supplies and enhancements, because likely one does not unload RPs at an **alien colony** without other compensation.

³ Commentary: There is an ancient, but in modern times, very subdued debate about intellect and charitable service vs. commercialism in terms of generativity. In fact, I could not even find relevant results on Google on January 24, 2020. There were results for ‘philanthropy vs. charity,’ and ‘charity as generativity,’ unfortunately, the latter results related mostly to senior longevity rather than actual generativity, which is typical of the current age. The results of ‘commercialism as generativity’ search mostly decried commercialism as degenerative to personal generativity (i.e. the attitude that we should be remunerated for whatever we do that we do not have to do), rather than talking about commercialism’s effect on future generations, i.e. all of the things that make up our world as a result of commercial enterprise. In terms of GGDM, the root question is what is the difference – in terms of generativity – between designing it to fit into a shrink-wrapped game box with pretty artwork or a set of RPG-like hardcover books (in an overloaded tabletop gaming market) or doing it the way I have chosen – to release my lifework as free PDF downloads from my own web domain? The junk-filled, commercialized internet has created a slowly-realized promising opportunity for charitable intellectual service to reemerge as generativity in the form of continued exposure of older works in the public domain, free articles and thoughtful blogs, and free educational information and materials.

⁴ Citation: “Despite all of the above, Japanese industry was not productive enough to keep up with either the United States or the Soviet Union, and [Gen. Tomoyuki] Yamashita warned against going to war with them for this reason. His recommendations were not taken to heart, and Japanese militarists eventually successfully pushed for war with the United States. In spite of their recent experience and military improvements, the Japanese would generally continue to underestimate their adversaries, emphasizing the courage and determination of the individual soldier as a way to make up for their lack of numbers and smaller industrial base. To varying degrees, the basic problems that faced them at Khalkhin Gol would haunt them again when the Americans and British recovered from their defeats of late 1941 and early 1942 and turned to the conquest of the Japanese Empire.” – from Wikipedia article, “Battle of Khalkhin Gol,” captured May 18, 2020.

⁵ Commentary: I recall part of an old movie which I watched long ago (but do not know the title) where a stand-up comedian was being questioned by an IRS agent about his claimed work-expense deduction for cases of beer. The comedian replied (and this was not a comedy movie, but more a drama or biopic) that he drinks many beers every night before he goes on stage, because he is funny when he is drunk, and thus the beer is a work expense!

⁶ Commentary & Citation: There is a nature video on YouTube, “How not to wake up a lioness,” (Kruger Sightings, January 29, 2019), where a large male lion nips a sleeping female in the butt and jumps back as she comes up roaring and swinging, like a boyish prank. There is no way it was staged; he seems to be laughing about it afterward.

⁷ **Commentary:** In the original Stellar Conquest board game, the 43-year old granddaddy of GGDM, there was a rule called the Emigration Bonus (or *population bonus*, pp. 5-6 of the original rules) in which an extra population would be received for every three loaded to Colony Transports up to the limit of the colony’s normal population growth on Production Turns plus three. At some point, I realized this was simply a mechanic to speed the game along without any realistic justification, and thus, it was omitted from the earlier versions of GGDM and was eventually replaced by the Census Power Activation, which replaced population growth in Stellar Conquest on the “Production Turn” bookkeeping interruption following every fourth turn. The reasons the Emigration Bonus was eliminated are apparent in my commentary on Colony Transports.

- ✓ That being said, some argument could be made against enhanced destination value of RPs loaded at one sovereign colony, transported, and then unloaded at another sovereign colony. I feel it would be similar to the Emigration Bonus in the original Stellar Conquest, which I have rejected as a corny mechanic (though I wonder if Howard Thomas had read Dean Inge...), and have instead taken the holistic view from a height looking at the position’s sovereign interstellar civilization as an entire system (which is consistent with the game) and thus, the cost of, say, building a ship includes the cost of loading, transporting, and unloading resources at sovereign colonies all within the same ‘system,’ excepting the Acts, Scenes and Power Activations required to bring the resources together.
- ✓ Enhanced value for unloading resources onto an **alien colony** does serve to encourage commerce between positions, and in that sense it is a game convenience mechanic consistent with the pan-galactic theme of the game. But the receiving **alien colony** is the gateway allowing input of goods, resources, information, which are outside the reach of the alien interstellar system, did not cost them anything in production, transportation, etc., did not cost them any of their own resources, Acts or Power Activations, into the alien system. There might be justification for the enhanced value in downloading RPs to **alien colonies**.
- ✓ This thinking is consistent with previous statements throughout GGDM, for example, the introduction Hegemony, 4 Order, p. 570, *supra*, or the boundary control function of the Integrity Proficiency and Security Proficiency, 3 Culture, pp. 390, 399 respectively, *supra*.

⁸ **Commentary:** Suppose Position A needs emergency RPs at one of its colonies and arranges delivery from Position B of 8 RPs (base, unadjusted) in exchange for a return delivery later at Position B’s colony of 11 RPs. Is this a ‘loan’ or a “futures contract”? It doesn’t matter, because isn’t a futures contract the same as a short term loan? That’s how it started when the samurai would sell the next rice harvest at discounted prices to get early cash; commodities futures were loans of typically less than one year on future expected resource production. And those futures could be sold, assigned or traded before the harvest. It seems only a difference of semantics: A loan must be repaid plus interest later, whereas with futures you are selling ownership rights at a discount for something that doesn’t yet exist. Either way it’s money now for the loss of rights to something in the future.

⁹ **Citation:** See Mushrooms from Alpha Centauri, 2 Movement, p. 851, *supra*.

¹⁰ **Commentary:** I am not clueless. The discussion here is rhetorical, to induce participants to think through the nuts and bolts of an interstellar monetary system. Asking questions should never be confused either with ignorance (i.e., you may already know the answer) or *with knowing the answers* already (i.e. you may be ignorant):

- ✓ “People thought because we were asking the questions, we had the answers. We were just as clueless as everyone else.” – interview of The Moody Blues band member from Legend of a Band video (1989).

Though I have thought about money in the past, before even the internet, the advent of Bitcoin (I knew people who mined Bitcoin) and blockchains (I also know a ‘blockchain guy’) made many people begin to think again about what is money and storage of economic value systems. I have heard about all that I ever want to hear in a lifetime about Satoshi Nakamoto theories, Mt. Gox, ‘wallets,’ ‘bubbles,’ ‘splits,’ and Ethereum, drug money laundering through cryptocurrencies, ransomware scams demanding payments in Bitcoin, Chinese market oppression and software espionage, the CIA, blockchains, etc.

- ✓ For the record, I do not believe that GGDM would benefit from any virtual in-game currency (e.g., like Lindens in Second Life or Interstellar Credits in EVE Online) or any sort of block-chains. It follows also that GGDM is not suitable for and should not be converted to a MMOG.