VOLUME 21 NUMBER 138

# THE BIBLICAL ASTRONOMER

FALL 2012

## PRODUCT LIST

(Continued from back cover.)

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***The Copernican Revolution: A Fable for Educated Men***, by G. Bouw. A collection of responses submitted in response to Danny Faulkner's "Geocentrism and Creation," promoted by Answers in Genesis. Each response was submitted to *Creation Ex Nihilo* but was rejected for publication for queer reasons. (Illustrated, glue bound.) $8.50

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**Front Cover:** Merope's Nebula. Merope is on e of the stars called "the seven stars" in Scripture. Job identifies these stars as the Pleiades. The gas and light emanating from Merope (above the photo at right) has compressed enough gas and dust into the bright cloud at right.

# THE
# BIBLICAL ASTRONOMER

**Volume 21, Number 138**
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# EDITORIAL

This issue signifies that I missed a full year, that is, four issues of *The Biblical Astronomer*. It also means that the revision of the 1992 *Geocentricity* book is nearing completion. We hope to have it out shortly.

In this issue you will find the third and last installment of how I recognized the Planck medium, also known as the vacuum state, as the firmament. Not included in this issue is the promised article attributing the cosmic microwave background (which is commonly interpreted as the temperature of the universe) to a byproduct of shock waves in the firmament. The math is done but the write-up is only partially finished. It requires a bit more explanation of why I pulled the stunt I did to derive that equation. Just a hint: it is the same principle by which I claim that if any Bible passage can be taken two ways, the reader should take it both ways. More on that in the next issue, Lord willing.

When I was still a little shaver in undergraduate school, one of the faculty advised me to change my major from astrophysics to economics. His reason was that, unlike in economics, there was no money in astronomy. In addition, he mentioned, that economics is similar to astrophysics in many ways.

I did not take his advice, and I do not regret my decision; but now, with the Federal Reserve's printing presses inflating the economy to the tune of $40 billion a month, I find myself forced to study economics as well as law. For the latter I've found the best book I've ever read on the law and offer it for sale to you, dear reader (see page 120). Now, you can get it cheaper or even for free (as a PDF or audio book) on the Internet, but consider it a donation to the geocentric cause. With the American people's total debt, including derivatives (think of them as insurance against default) near $900 trillion and climbing at roughly $2 trillion per month with the mortgage scam, we see economics numbers approaching astronomical heights. Default is unavoidable; it is just a matter of time.

For that reason I present an article entitled "A Philosophical Treatise" by David Lifschultz. It serves as a decent history and introduction of modern Keynesian economics. John Maynard Keynes (1883-1946) was a British economist who proposed that high unemployment results from insufficient consumer spending could be relieved by government-sponsored programs. He also advocated deficit spending by governments to stimulate economic activity. His is a socialistic economics model which ends up "redistributing" (stealing) money from the middle class—which has the bulk of the wealth—to

the very, very rich and the no-longer poor.[1] Keynesian economics drove the post-WWI German, Austrian, and Hungarian hyperinflations. In its final stages, Keynesian economics destroys the middle class and stratifies society into two groups, the super rich and the super poor as happened to the Union of Soviet Republics as well as China, Cuba, Angola, and so forth. The Obama administration has succeeded in destroying about 10% of the middle class in the last three years.[2] Some of those affected moved up to join the rich, but most have fallen onto the welfare rolls.

For the last 7 or 8 years I've been meaning to reprint an article I'd printed 15 years ago; or so I thought. When I searched for the original article it was nowhere to be found among the *B.A.* issues. I had not published it. So I redid the math and you can find the article on page 122. In the article I estimate the gravitational tension caused by the universe about the earth. The tension is generally called "inertia."

Finally, we list all the products we have to offer at this time. The prices listed on page 124 go into effect with the next issue. Until then, the prices on the back and inside front covers apply. For new products not listed on the cover, the page 124 prices apply.

Thank you for your patience over the last two years, and I apologize for the technical nature of the last two issues. It's fallout from the technical section of the new *Geocentricity* book.

## All About Politics

The problem with political jokes is they get elected.

—Henry Cate, VII

We hang the petty thieves and appoint the great ones to public office.

—Aesop

If we got one-tenth of what was promised to us in these acceptance speeches there wouldn't be any inducement to go to heaven.

—Will Rogers

Those who are too smart to engage in politics are punished by being governed by those who are dumber.

—Plato

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[1] It is not all that rare that a family of four on welfare and disabilities can collect over $140,000 per year tax-free. That is almost three times the median amount made by the middle class before taxes.

[2] My estimate, based on the drop in median income for the middle class over the last 3 to 4 years.

# THE BIBLICAL FIRMAMENT
# Part 3

**Gerardus D. Bouw, Ph.D.**

In the first two installments about the firmament of the Bible, I told of my first, tentative steps to its recognition. In the first installment we looked at "nothing" and found that nothing has no properties, particularly, not the property of existence. Logically, it then follows that the inverse of nothing must be infinite existence which must have infinite properties. Among these infinite properties are omniscience, omnipresence (in space and time), and omnipotence. These are the very properties of God.

From God's omnipotence it follows logically that God must be a *plenum*, an infinitely dense, uncreated "substance" or Spirit, for want of a better word. To some, such a thought borders on blasphemy; so, in the second installment I presented—from Scripture—the support for God's plenum properties.

In this third installment of the history of my recognition that the firmament is a created plenum, I report on the geocentric models considered while the cogitations of Part 2 were underway. In short, these are consderations of geocentric models that work without a plenum.

## Approaching the Rotation Period of the Universe

Many things I learned along the way were instrumental in bringing me to the Holy Bible. Among those things that were shaped me were learned at the University of Rochester (U of R) and Case Western Reserve University (Case). My interests in astronomy were more closely matched by the U of R than by Case; but at Case, I had more external sources of information. It was a source of the external-source kind that spurred me to explore my first model of a rotating universe.

It is clear from the fact of its existence that the universe is in mechanical equilibrium, which is to say that there is a balance between its rotational and gravitational energies. Without such a balance, the universe would collapse in upon itself or else fly apart into pieces. Leonid M. Ozernoy first discovered a general rule for that balance by observing the rotational behavior of asteroids, planets, stars, galaxies, and clusters of galaxies.[1] The rule he found is that the angular (or spin)

[1] Ozernoy, Leonid M., 1967. *Astron. Tsirk.* Nos. 405 & 407. (In Russian.)

momentum density, *j*, is related to the gravitational constant G, the mean density *D*, and the mass, *M* as:

$$j = (G\, K_r\, K_g)^{1/2}\, D^{-1/6}\, M^{2/3} \qquad (1)$$

where $K_r$ is the relative gyration radius and $K_g$ is a constant related to the mass distribution. For an ideal situation, such as is likely the case for the universe as far as its material constituency is concerned, the exponent of 2/3 on the mass is exact. A 1982 article by Carrasco et *al.* expanded on that.[2] Carrasco, Roth, and Serrano studied a correlation—a relationship—between angular momentum density (a measurement of how hard it is to stop the spin of a spinning object divided by the object's mass) and the mass of the object. The correlation exists over forty orders of magnitude—ranging from small asteroids to superclusters of galaxies—making it the most widely observed property of matter yet discovered. (See Figure 1.)

I had heard of Ozernoy's paper when it first came out, so I was particularly intrigued by the Carrasco et al. results. I first extrapolated the line to the mass of the universe and found that the spin rate matched that of several estimates for the rotation of the universe as a whole with respect to the firmament in which the universe of atomic matter is embedded.[3] (At the time, the detractors asked, "Rotation with respect to what?" A legitimate objection but not very helpful given certain phenomena such as polarization alignments of light from various parts of the universe, which implied a rotating universe.)

More than half a dozen papers have attempted to compute the rotation period of the universe. Most estimates fall in a range from ten to one hundred billion years as the rotation period for the universe. I was not surprised since that is also the period found by extrapolating the bottom line of Figure 1 out to the estimated mass of the universe (about 56 on the horizontal scale). Clearly, this does not help geocentrists in their belief that the universe rotates about the earth once per day.

**The Derailment**

With that little success I started to focus in on the density aspects of Figure 1 and Equation (1) with an eye to what I had already con-

[2] L. Carrasco, M. Roth, and A. Serrano, 1982. "Density Scaling of the Angular Momentum Versus Mass Universal Relationship," *Astronomy and Astrophysics*, **106**:89-93.
[3] Birch, Paul, 1982. "Rotation of the Universe," *Nature*, **298**(5873):451; Panov, V. F., 1985. "On the Rotation of the Universe," *Isvestiya Vysshikh Uchebnykh Zavedenii, Fizika*, No. 1, pg. 22.

cluded was the firmament. I started to work with Equation (1) above but unfortunately changed the sign in the exponent of the density, *D*, from –1/6 to +1/6. In other words, Equation (1) was copied down as:

$$j = (G\,K_r\,K_g)^{1/2}\,D^{1/6}\,M^{2/3}, \qquad (2)$$

which is wrong.

The analysis based on the wrong formula implied that the firmament and universe had to rotate with a period of roughly a day in order to exist.

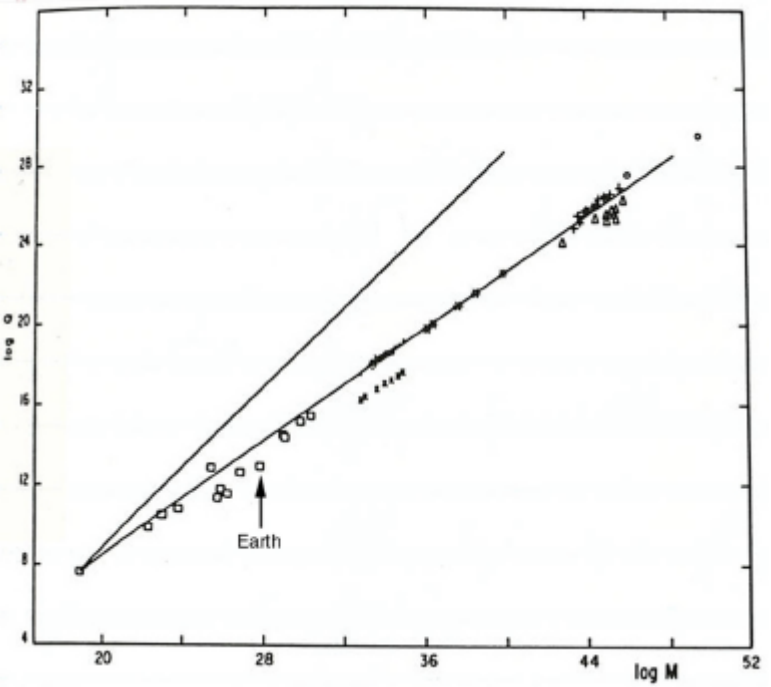


**Figure 1:** ***The vertical axis is the logarithm of the angular momentum density and the horizontal axis is the logarithm of the mass. The arrow shows where the earth falls on the relationship. The top line is not relevant to our discussion.*** (From Carrasco et al.)

The erroneous conclusion was published in *The Bulletin of the Tychonian Society* in 1987.[4] The error went undetected for twelve years when, in 1999, a physicist, tired of hearing the result being used on the "Bad Astronomer" web site, decided to check on my result. He

[4] Bouw, G. D., 1987. "The Firmament," *Bulletin of the Tychonian Society*, no. 43, pp. 11-20.

detected the error right away. Unfortunately, although I have the text of what he wrote, his name is not on the printout so I cannot properly credit him with the discovery.

Because of the error, for twelve years I felt no pressing need to undertake a deeper study of the firmament. Once the mistake was unearthed, I at last was free to go on. When I entered the firmament's values for the correct equation, the period was roughly equal to the Planck time (see Table I). It was time to look for another cause for the diurnal rotation of the firmament with the universe embedded therein.

**A Created Plenum**

Let's imagine for a moment that we are God. We have something we would like to make known. Clearly, as members of the Trinity: the Father, Word, and Holy Ghost, we have perfect knowledge of all things, so there is nothing we can reveal to one another that we did not already know. However, being an omniscient, omnipotent God, we could create beings to whom we could reveal those things we already know about. The Apostle Paul states it this way in Romans 9:22-24:

> [22] What if God, willing to show his wrath, and to make his power known, endured with much longsuffering the vessels of wrath fitted to destruction:
> [23] And that he might make known the riches of his glory on the vessels of mercy, which he had afore prepared unto glory,
> [24] Even us, whom he hath called, not of the Jews only, but also of the Gentiles?

If, as God, we want to reveal these things, we first have to create a safe haven for both the vessels of wrath and the vessels of mercy; for since we, as God, are omnipotent the energy density within us is infinite and would instantly consume any vessels we would create unshielded. First, we would have to make a space for them (the heaven of Genesis 1:1), and then endue that space with provisions to sustain physical life as well as the foundations for wisdom and revelation (light), and then build a shield to protect the vessels we shall create inside the shielded region. I submit to you that said shield was made on the second day of creation and in English is called the *firmament*.

I don't know about you, but as a former professor of computer science I've dealt with virtual reality quite extensively. Indeed, this article is being written on a virtual computer, no less! So it comes as no surprise that with my virtual ear I can hear a chorus of virtual objections: "You blankety-blank-blank idiot! Don't you know that Bible

scholars have *proven* that 'firmament' should be translated as 'expanse' and that there is nothing firm about it?" See any new Bible version.

Another virtual soul cries, "Heresy! Don't you know that the firmament was a water canopy surrounding the entire earth before the flood?" (That theory is now totally discredited by creationists.) Since the second installment of this article covered the issue of heresy, there is no need to go further into that charge.

Still another virtual virtuoso[5] snickers: "Don't you know that the firmament is a reference to the ancient Egyptian cosmology, which Moses learned from his Egyptian schooling, where the sky is a star-studded dome, resting atop a circle of mountains and so covering the flat earth?"

Obviously, I don't know any of that.

I suppose we'll have to try to convince these virtual virtuosi with a little history lesson.

**Linguistic Arguments for a Solid Firmament**

According to Scripture, the creation of the firmament takes place on the second day of the creation week. In Genesis 1:6-8 Scripture records the event as follows:

> 6 And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters.
> 7 And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so.
> 8 And God called the firmament Heaven. And the evening and the morning were the second day.

Now, nothing in the account requires the firmament to be a *hollow* shell.[6] Yet modern scholarship confidently informs us that the word, "firmament" hearkens back to the cosmologies of ancient Egypt and Babylon. To those peoples, the sky was a shell, particularly a hemisphere that covered the disk of the flat earth as the dome of a serving dish covers the pheasant.

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[5] In the early days of the geocentric-heliocentric debate, the heliocentrists called themselves the *virtuosi*.

[6] An interesting thing happens as one draws closer to the edge of the firmament. The firmament's protection of atomic matter fades away so that its extreme density and temperature become increasingly manifest. The firmament is impregnably solid at its edge. This is the reason why the wording of Scripture is somewhat ambiguous when it comes to the concept of the firmament.

Truth is, I've never been able to confirm the firmament-is-a-shell model in the source documents of any ancient Mid-Eastern cosmology. The closest I've come is the story that Nut, the night-sky goddess who is portrayed as a naked female stretched across the sky (Figure 2), swallows the sun on the first day of spring, when he enters her mouth, and then passes through her star-studded body to emerge reborn from her birth canal nine months later. Other accounts have the death-birth process happening daily. In either case, it is interesting to note that the only way Nut, the creator-mother of Egypt's god, could eat the sun without using her hand is if the sun were a wafer, in which case, to swallow him, she need only tilt her head from the position pictured in temple pictographs. This is the strongest evidence Bible critics can muster to support their claim that Moses' firmament heralds from Egyptian cosmology. It bears no resemblance to anything in Scripture.

**Figure 2:** *Nut About to Swallow the Sun in Spring*

The most ancient Egyptian explanation for the universe is that each day the sun embarks to sail across the sky in his eternal bark trying to keep peace and joy in the world. But every evening, after the sun disembarks his bark, the great primordial lotus blossom closes its petals and sinks once more into the waters of the abyss. Darkness reigns throughout the night until the sun god within the lotus is reborn in the morning. Then the lotus rises to the surface of the deep, opens, and the young sun embarks his bark to start the journey all over again. Just what from these stories Moses incorporated into his creation account of the firmament escapes me, but apparently not the virtuosi.

The dish interpretation of "firmament" stems from the 18th century when the Bible dictionaries were rewritten and secularized. Lan-

guages such as Hebrew, Latin, Greek, and English have sacred, as well as secular forms. (The English sacred form survives today in the *Authorized Bible*.) Each sacred language-form is designed solely to embody the Scripture in that language and is considered sacred to its faithful. In the 18th century, however—as a direct result of the Copernican Revolution's success in removing the authority of the Bible from the physical realm, thus limiting its authority to the spiritual realm—there arose a movement whose goal was to "recover" and "correct" what God physically "meant" to say but did not have the wits to say correctly in the first place. The movement, commonly known as "higher criticism," rejected the established theology that God had given man his words by *revelation* and that God would actively *preserve* his words, even his Bible through his seed. Instead, the critical movement embraced the notion that the Scripture which was given by inspiration of God now exists inerrantly only in heaven and must be *recovered* by virtuosi since only they think themselves equipped to recognize that which God had given by inspiration but didn't think worthy of preserving in the first place.

It was this movement with their assumption that only the "book of Nature" is inerrant, that set about to secularize the meanings of the sacred languages by adding, or replacing, or re-coloring the sacred meanings of the Hebrew, Greek, Aramaic, and Latin words with secular meanings. That way these theologians could appear scientifically and historically "respectable." Most of those virtuosi appealed back to pagan cultures to extract the so-called "correct" meaning which God was unable to preserve. And so it came to pass that *firmament*, a word that suggests a solid medium, was replaced with a hollow, metal shell covering a flat earth.

**Historical Precedence for the "Firmament" Translation**

Now the word "firmament" is a translation of the Latin, *firmamentum*. In classical Latin, the word means "something which strengthens or supports." That was how the underlying Hebrew word, *raqija* was translated into the *Old Latin Bible* around A.D. 130. About twenty years later, ca. A.D. 150, Aquila did his translation of the Old Testament into Greek. He translated *raqija* as *stereoma*, which properly means a firm or solid structure. In Hebrew, the root word underlying *raqija* is *raka*, meaning to condense, to make firm or solid. These translators apparently support the solid firmament model.

All English translations up through the KJV, including the *Douay-Rheims*, chose "firmament," although most European translations render the Hebrew as "expanse." The latter word is neutral, allowing for either the shell or solid model. Add to that the debate between Leucip-

pus and Parmenides about the plenum vs. atom models, which established the ancient heritage of the plenum model, and the linguistic support for the firmament model is secured.

**The Firmament As a Created Plenum**

Before we consider the firmament as a created plenum, we need to appreciate some of the properties of Planck particles. It is hard to comprehend how tiny a particle of firmament is. If we were to enlarge such a particle to the size of a typical marble (about 1 cm), the diameter of the marble would be enlarged to more than 12,500 universes laid side-by-side.[7] Or if we were to enlarge the Planck particle to the size of a hydrogen atom, the hydrogen atom would be some ten million earths laid side-by-side, engulfing the entire orbit of Neptune far enough to encroach Pluto's orbit.

Likewise, how much larger is the heaviest stable nuclear particle we know, the proton, than Planck particle? Much. A proton's size is $1.32 \times 10^{-13}$ cm. Compared to the $1.62 \times 10^{-33}$ cm size for the Planck particle, that means that the size of a proton is close to $10^{20}$ times that of a Planck particle. The number $10^{20}$ is said to be "twenty orders of magnitude." Of those twenty orders of magnitude, we are clueless of 18 of them (the theoretical Higgs boson is about $1/100^{th}$ the size of a proton but has yet to be detected). Those twenty orders of magnitude are not empty, mind you; they are filled with Planck particles, as is the entire universe, as well as inside every atom, and every fundamental particle. Those twenty orders of magnitude provide a buffer between atomic matter and the firmament. No extreme Planck property can traverse it. The particles are too small to directly affect the universe.

Now, like any good particle, the Planck particle has a mass as well as a size. In this case, the mass is only a couple of hundred-thousandths of a gram. With a size and a mass, we can compute the density of a Planck medium, that is, the density of the firmament. When we run the numbers, we find that the density of the firmament is about $4 \times 10^{93}$ grams/cm$^3$.[8] In comparison, the mass of the universe is estimated at $6 \times 10^{56}$ gm.[9] That means that if we packed the entire universe into one cubic centimeter—about the size of a small sugar cube—then we would have 56 of the 93 zeroes in the exponent making up the density of the firmament. We'd have to keep packing more and more universes into the sugar cube until we've packed in some $10^{37}$ universes. Yes, the density of the firmament is $10^{37}$ universes per cubic

[7] $D_U = 4 \times 10^{28}$ cm, $D_P = 2 \times 10^{-33}$ cm implies $(0.5 \times 10^{33} / 4 \times 10^{28}) = 12{,}500$.

[8] $4.220 \times 10^{93}$ assuming a Planck particle has a spherical shape. If we assume the Planck particle is a cube, the density is $5.128 \times 10^{93}$ gm/cm$^3$.

[9] Assuming a universal mass of $6 \times 10^{56}$ gm based on the baryon count.

centimeter. If the firmament is the same size as is currently estimated for the universe, (a radius of $2x10^{28}$ cm) then the firmament's mass is a whopping $10^{123}$ universes. Clearly, the firmament is by far the most massive created thing.

**TABLE I**
**PROPERTIES OF A PLANCK PARTICLE**

| | |
|---|---|
| Length | $= (h\ G/c^3)^{1/2} = 1.616040 \times 10^{-33}$ cm |
| Time | $= (h\ G/c^5)^{1/2} = 5.390528 \times 10^{-44}$ sec |
| Mass | $= (h\ c/G)^{1/2} = 2.176570 \times 10^{-5}$ gm |
| Temperature | $= (h\ c^5/G)^{1/2}/k = 1.416859 \times 10^{32}$ K |
| Charge | $= \langle m \rangle^{1/2} \langle l \rangle^{3/2} \langle t \rangle^{-1}$ |
| | $= 5.62255x10^{-9}$ gm$^{1/2}$ cm$^{3/2}$ sec$^{-1}$ |
| | $= (h\ c)^{1/2} = 11.7$ esu |

*In this table, G represents Newton's gravitational constant, c the speed of light, and h is Planck's angular momentum constant; also, m is the Planck mass, l is the Planck length, and t is the Planck time. Esu stands for "electro-static units."*

Table I lists the fundamental properties of the particles that make up the firmament. We note from Table I that the particle's mass is $2.2x10^{-5}$ gm and that its size is $1.62x10^{-33}$ cm. Also, the particle is electrically charged with a charge of 11.7 esu.[10] It is that charge that is the target of the various "perpetual motion" zero-point-energy machines promoted on the Internet. The firmament's electric charge property is also at the core of Harold Aspden's plenum theory of the ether. Significantly, the Planck particle has no magnetic properties. To me, this implies that the electric fields in the atomic-matters space, the universe, will exhibit wave properties while magnetic fields will foster particle properties.

In our table of Planck particle properties, Table I, we see that the particle is on the hot side. The Planck particle has a surface temperature of $1.4x10^{32}$ K. It so happens that the "black-body" radiation curve of a body at the Planck temperature has its peak at the Planck length. For comparison, the black-body peak for the temperature of the universe is located at 2.7 K and is called "the cosmic background radiation."

So, why are we not instantly vaporized by the firmament? Two reasons: firstly, the Planck particle is the size that a particle of a Planck

[10] The electrostatic unit (esu) is a unit of charge. A proton has a charge of +1 and the electron has a charge of –1. That means the charge of a Planck particle is 11.7 times the charge of a proton or electron.

mass ($2x10^{-5}$ gm) would have if it were compressed into a black hole. That implies that the surface of a Planck particle will behave similarly to a black hole, namely, that no light, heat, or radiation can escape from it. Even though the Planck temperature is of the order of $10^{32}$ Kelvins, none of the radiation can escape the surface of the particle. Secondly, even if radiation were to escape from the surface of a Planck particle, its wavelength is far too short to affect the universe of atoms. Besides, it would simply be reabsorbed into the firmament before it traveled more than a Planck length or two. As a result, we are quite safe from being vaporized by the firmament…at least for now.

Clearly, the firmament is by far the most massive thing created. Its mass is estimated at $2x10^{179}$ gm. Is it any wonder, then, that the firmament dictates the physics of the universe?

But if the firmament is that dense, how can we move through it? Recall Bertrand Russell's discovery that in a true plenum only cyclical motion is possible as long as the plenum and its motions are eternal and uncreated. But the firmament is not a plenum, so how can we move through it? The answer is that the universe of atomic matter must perceive the firmament as if it were a true plenum and, likewise, the motions allowed through the firmament must be cyclical. In turn, any straight-line motion through the vacuum of space cannot be detected by the firmament.

All particles act as waves insofar as the firmament is concerned. A particle at rest relative to the firmament acts as a standing wave (the type of wave started by plucking a guitar string) and its wavelength is called a "Compton wavelength." For instance, the Compton wavelength of a Planck particle is a Planck length. For a particle moving through the firmament, its wavelength is known as the "deBroglie wavelength." The moving wavelength of a particle is shorter than its static Compton wavelength. As a nuclear particle moves faster and faster through the firmament, its energy increases, which makes the particle appear more and more massive.[11] Likewise, its wavelength gets shorter and shorter. Once the nuclear particle's energy-laden mass approaches the Planck mass and its wavelength approaches a Planck length, the nuclear particle and the Planck-particle ocean detect each other; and the hapless moving particle, now traveling extremely close to the speed of light, is absorbed into the firmament.

Earlier we saw that the Compton wavelength of a proton (that is, its size) is about 20 orders of magnitude longer than that of a Planck particle. We know next to nothing of the spatial properties in those 20 orders of magnitude, but we do know that it is filled to capacity with

[11] Remember, $E=mc^2$; energy is mass and mass is energy.

the stuff of the firmament. To allow motion through a dense, created plenum, it is sufficient that the particles' wavelengths be very much longer than those of the particles making up the created plenum. Twenty orders of magnitude minimizes the chance that the proton and Planck particle will ever sense each other unless the proton moves so fast that its effective mass approaches the Planck mass, at which point the proton will be absorbed into the firmament. Those two conditions, the huge difference in wavelengths between Planck particle and proton and the resistance a mass encounters as it moves faster and faster through the firmament, serve to guarantee that no nuclear particle can ever be detected by the firmament and vice-versa. That, in turn, means that we can move freely through the firmament.

In the ways we have outlined in the previous paragraphs, we see that the firmament is indistinguishable from a true plenum. The obvious conclusion is that the firmament is a created plenum that serves as a barrier between us and the true plenum that is a property of God. In that sense, the created plenum—the firmament—is a false god. It is for those two reasons, a barrier between us and the loving mercy of God, and the false-god property of the firmament that explains why God did not declare the firmament "Good" in the day that he created it. (See Genesis 1:8.)

**Light and the Firmament**

What about light waves and the firmament? Earlier we saw that the ether, an ephemeral concept that was postulated solely to account for the propagation of light. Can the firmament be responsible for the transmission of light? The answer is, "Yes."

At least three types of waves can exist in the firmament.[12] These are: *transverse waves*, *longitudinal waves*, and *thermal waves*. Whether or not these waves actually occur in the firmament will not be argued here. Let me just state that in the firmament these waves are mechanical, not electromagnetic, although their appearance in the universe of atomic matter will likely be electromagnetic. Thermal waves are not relevant to this section, although they possibly play a role in the firmament's shielding function.

Transverse waves are waves that manifest themselves in two dimensions. A rope tied to a doorknob and then shaken up and down is a transverse wave. Light is also a transverse wave. When the standard, classical, expression for transverse waves is applied to the firmament, the speed of the wave equals the speed of light to at least five significant digits. This implies that the firmament plays a pivotal role in the

[12] Bouw, G. D., 2008. "Speeds of Waves in the Firmament," *B.A.* **18**(124):54.

transmission of electromagnetic waves through space. It also means that the firmament dictates the physical behavior and properties of light waves.

Longitudinal waves are compression waves, such as sound waves or shock waves. This waveform presses particles together into a region of high pressure which, in turn, causes a low pressure area on both sides of it. The particles are then pushed back into the low-pressure area which, again, becomes a high pressure area, and the process repeats itself by radiating outwards from its source. A slinky is an example of a longitudinal wave. The speed of longitudinal waves through the firmament is $3\times10^{39}$ cm/sec, which is$10^{29}$ times the speed of light. At that speed, the signal crosses the firmament in roughly $10^{-11}$ second or one one-hundred-billionth of a second. The computation assumed that the pressure on a particle inside the firmament is the gravitational attraction between two Planck particles in contact with one another. The actual pressure is likely to be higher and thus the speed of a longitudinal wave through the firmament will also be higher. Longitudinal waves probably play a role in the nature of gravity.

It is clear that there is a relationship between the firmament and the speed of light. Most likely, the firmament is the light-bearing medium, the "ether" for which physicists and astronomers alike have searched. According to the behavior of light, the earth stands still in the universe. That observed behavior of light means that we no longer need to postulate the existence of ether as the conductor of light; the firmament fits that bill. It is not clear how the firmament controls gravity, but as the firmament has the property of omnipresence insofar as the material universe is concerned, as such, gravity may be due to pressure-dynamics within the firmament itself.

**Modern Interpretations of the Firmament**

To show that the firmament model is the superior model of the Planck medium today, we need to show that the modern interpretations thereof are flawed. So, let's look at today's interpretations of the firmament.

At present, the Firmament goes under many different names. Some of these are: *vacuum state, Planck medium, spacetime foam, zero point energy (ZPE),* and *Markov's maximon fluid*. The particles making up the Firmament's medium also have various names. Most prominent among them are: *Planck particles, maximons, massive superstrings,* and *virtual particles.* All these aliases for the firmament and its particles suggest that there is no consensus among cosmologists on the nature of the firmament.

The most common interpretation of the firmament is the vacuum state theory. That theory claims that the firmament is a sea of "virtual particles." According to the theory, a virtual particle, which we've referred to as a Planck particle, is said to pop into existence from nothing, persist for a Planck time (about $5x10^{-44}$ sec.), and then pop out of existence again. The firmament is thus pictured as an ocean of fictitious (for that is what *virtual* means) particles ceaselessly popping in and out of existence. The popping region is referred to as "spacetime foam." In the firmament model, the particles are real, not virtual.

It turns out that the spacetime foam of virtual particles does not behave as required by theory. On such a tiny scale, the mechanical motions of the virtual particles popping into and out of existence fluctuate so violently, so randomly, and so energetically, that all kinds of bizarre structures, such as wormholes,[13] develop. But there is no limit to the size that these structures can have, so if the virtual spacetime foam model is correct, then these strange structures should grow larger and larger and should readily be detected, yet none have been found.

The lack of bizarre structures expected by quantum theory implies that the particles are real, not virtual. The problem lies with the popping into and out of existence, for that causes the instability because the virtual particle model is incapable of conforming to *real* constraints. If the particles are real, however, their constraint is one of detectability, not one of existence; that is, the particle is only visible for a Planck time. We conclude that the firmament's Planck particles are real particles having a real existence and that consequently, the firmament is real.

Now some may wonder what my perspective is on the phenomenon that is interpreted as spacetime foam. I see this as the particle solidifying from the future into the past where the particles are deposited into 8-dimensional sheets. For that brief instant between future and past that we call the present, the particle is detectable; a Planck time later, the next particle materializes as the next sheet passes through the present.[14]

**Rotation of the Firmament**

Experimental evidence shows that the firmament rotates once every 23 hours and 56 minutes with the earth located at the dynamic center of the firmament. If the firmament were not rotating in the true

[13] Wormholes are tunnels in spacetime joining two distant regions in the universe or parallel universes.

[14] For more on this theory see: Bouw, G. D., 2007. "Vistas in Time I: the Physics," and "Vistas in Time II: the Linguistics" at http://geocentricity.com/ba1/no121/, and "Vistas in Time III: Time sheets," at http://geocentricity.com/ba1/no122/.

plenum, then there would be no way to distinguish it from the true plenum and the creation would instantly vaporize. The rotation fulfills Russell's requirement that only cyclical motion is allowed.

If we design an experiment to measure the relative rotation of earth and firmament, we get a positive result. The first to do the experiment was Georges Sagnac who conducted it in 1904. Sagnac did find evidence that can be interpreted as the ether rotating about the earth, but it can equally well be interpreted that the earth rotates in the firmament. There is presently no way to distinguish whether the earth rotates in the firmament or the firmament rotates with the earth on its axis. The only way to tell is to go outside the universe and compare the motions in the universe with the status there. The observed rotation period is 23 hours 56 minutes, a sidereal (star-rise to star-rise) day, as opposed to a solar day of 24 hours (sun-rise to sun-rise).

Let's make sure we have this straight. When scientists conduct experiments to determine the speed of the earth moving through a light-bearing medium, its speed registers zero. To account for this, we are given several "just so stories,"[15] of which I shall list only three. We are told that there is no light-bearing medium, so we cannot measure any speed. Or we are told that the speed registers zero because the motion of the apparatus shrinks in the direction it is moving. Or physics conspires to make it look as if the earth is at rest in the midst of the firmament. On the other hand, if we conduct an experiment to discover the relative speed of *rotation* of the earth through the light-bearing medium, we get a positive result. For some reason, the motion of the apparatus is *not* shrunken by its relative rotational speed through space and the scientists are as silent as a turkey farm on Thanksgiving as to why the same experimental principle works for rotation but not for orbital motion.

The most obvious explanation for these two experimental results is that, for the first experiment, the earth does not move through the firmament. Thus all experiments designed to detect that motion will fail because the firmament anchors the earth in the dynamic center of the firmament. To those who accuse physics of "conspiring" to hide the motion of the earth through space I ask, "What's the difference between a conspiracy of physics or reality?" There is no difference; in either case, the earth is at the dynamic center of the firmament that controls the physics.

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[15] The *Just So Stories for Little Children* was written by Rudyard Kipling and published in 1902. The book is a collection of fantastic stories of how animals got certain features. Today, a "just so story" is a fanciful or *ad hoc* explanation for the origin of a thing.

**The Barycenter**

So far I've been calling the place of the earth as located at the dynamic center of the firmament. But there is another term meaning the dynamic center, which is *barycenter*. You see, it never happens that a lighter object revolves around a heavier object; both revolve around their common center of mass, the barycenter. The barycenter is merely a point in space, somewhere between the orbiting bodies, around which each body revolves. Thus there is a barycenter about which the sun and Mercury both orbit with a period of 88 days. There is a different barycenter about which the sun and Jupiter orbit with a period of 11 years, and so on for every planet. For the solar system, for instance, the barycenter is not very far inside the sun. The sun's orbit around that barycenter is complicated; it is not a clean orbit.

If the earth is at the barycenter of firmament and universe, then the gravitational fields of the firmament, universe, and earth are superimposed upon one another. Any attempt by the universe to dislodge the earth or alter its rotation or position will be opposed by the firmament as an attempt to detect and move it. The firmament will resist the universe's attempt to move it by transferring the reaction to the universe which is the lightest thing perceived by the firmament. The firmament's reaction to the universe's imposition thus appears to be on behalf of the earth which is located exactly at its center. This behavior is akin to how a gyroscope rights itself back to its original path when deflected by changing the orientation of its axis.

**Summary**

We have ranged far and wide in this chapter, starting with nothing, and finding everything by taking the inverse of absolute nothing. We found that the everything had the particular properties of an infinitely dense medium called the *plenum* and discovered that these properties are identical to the properties of God: omnipresent, omnipotent, immortal, and omniscient and so can be identified as God.

From there, we looked at the history of the plenum and void models of space. We found that one could not exist without the other since light and matter have both particle and wave properties. We discovered not only the true nature of motion through a plenum but also that a created plenum has to exist. We concluded that a created plenum, a peculiarly "counterfeit" plenum, is the firmament of the Bible. We identified the reason why God created the plenum and saw that the firmament shields the creation from God's plenum properties by endowing the firmament with counter-properties, such as the firmament's extreme

density and opacity that protects the creation from being vaporized by God's light.

Next we confirmed by historical analysis the correctness of the translation, *firmament*, in the English Bible. From that we conclude that the Bible is authoritative in everything it touches upon, including science. The Copernican Revolution's effort to rid the world of the Holy Bible is thus exposed as the sham it is.

We saw, too, that the firmament rules all the physics in the universe and that, insofar as fundamental experimental observations are concerned, the firmament always shows the earth at rest. In the course of our analysis, we discovered that the ethereal ether is unnecessary and redundant. The firmament is responsible for the wave properties of light.

From fundamental experiments and observations, it appears that the universe controls physics so that the earth is kept at the barycenter of the universe. Heliocentrists prefer to say that physics somehow *conspires* to make it look as if the earth is at the center of the universe. Even if there were no firmament, the universe would still fight any attempt to change the earth's central position. From that perspective, it makes sense that the earth is located at the barycenter of creation.

We also found that the modern scientific interpretation of the firmament as a sea of foamy virtual particles is fatally flawed because it lacks real constraints to suppress a menagerie of problematic structures that should be observed but are not.

This leaves the geocentric, Biblical model of the firmament as the most viable explanation for the Planck medium. Having thus started with nothing, we end up with two plenums; an uncreated one and a created one.

**Conclusion**

As a created plenum, the Planck medium is the only candidate for the Biblical firmament of the first chapter of Genesis. It shields the creation from God's fervent heat and serves as an anchor that stabilizes the earth. Since the firmament dictates the physics of the universe, it is the cause of the phenomenon that physics "seems to conspire" to anchor the earth at the dynamic center, the barycenter, of the creation. The Copernican Revolution was thus mistaken in concluding that the Bible need not be believed when it touches on scientific matters; the Bible is an infallible authority on all topics it covers.

The interested reader may want to read pages 70 through 78 of issue number 137 for more insight into the firmament model.

# A PHILOSOPHICAL TREATISE

**David K. Lifschultz**[1]

The destruction of Christianity and the centralization of wealth are due to the control of the society by the usurer in violation of Biblical law. These usurers are behind the murder of one billion plus unborn infants and now seek to impose the homosexual society and to hallow homosexual marriage on the masses. See how the interest rate system achieves this in the article below.

We find Johann Wolfgang von Goethe's Faust in his library in Germany around the late 18th century in a state of manic depression contemplating his forty years spent in the study of philosophy from the ancient Greeks and Romans to the Schopenhauers, Hegels, and Kants of his day. He had nearly gone insane reading the *Critique of Pure Reason* and it suddenly had dawned on him that he had wasted his entire life drowned in books and that all his learning was worthless.

Mephistopheles, the Devil, seeing his opportunity to prey on the spiritually weak, approached him to say all was not lost. He could make up for lost time, and offered him the most beautiful woman in the world (Margarete), and a paradise on earth with her at his side, and all that he had to do was sign over his soul on the dotted line contracting to deliver it up to him at the appointed time of his death. Our friend, Faust, tired and exhausted in studying the vain fruit of the tree of the knowledge of good and evil, decided to choose what he thought would be the new route to Paradise.

In this jolly period Dr. Faustus and Mephistopheles alighted on a Kingdom in Germany where the bankers in Frankfurt had created a species or gold shortage, and thereby had induced a depression as central banks contracting credit induce today for the purpose of making trading profits for the private bankers and investment houses, and here in Holy Germany for taking over control of this Christian Kingdom--see the action sometime back when the British Central Bank sold gold to bail out the short positions of the major private bankers. Unemployment was 50%, the population was near to rioting in the streets as they were hungry, the country was in disrepair everywhere with buildings

[1] This is a presentation of David K. Lifschultz, Chief Executive Officer of Genoil Emirates (genoilemirates.com), before the Family Office Conference in Zurich At the Dolder Grand Hotel in the summer of 2011 on the topic of "Currency Risks, Trends and World Commerce: Will Currencies Misalignments Break Down The World Financial System As In The 1930s?"

looking like they were going to crumble, and there was a distinct possibility of the King being overthrown after a thousand years of the monarchy.

Enter Dr. Faustus (Goethe) and Mephistopheles (Mayer A. Rothschild and Alexander Baring) into the King's palace, and there they proposed the John Law remedy of paper money and credit to be created out of nothing to solve the problem of Frankfurt—manipulation not too different from what happens in our markets all the time. The King exclaimed that how could he sign off on a paper and currency that had no gold backing, and not be perceived as a fraud. Mephistopheles answered that they would put the King's picture on the currency, and they would sign his name to the statement that the currency was backed by all the gold in the kingdom that had not yet been discovered and dug up, and that would solve whatever qualms the population might have had. The King said that it would never work and would not be the first King in his thousand year line to have committed such a fraud.

Mephistopheles and Dr. Faustus then proposed a grand ball where all the beauties of the Kingdom would gather, and the liquor would flow profusely, and everyone would have a merry time. The King was plied with drink until he lost his senses, and they then put the paper currency decree into his hand, and he signed it. While the drinking celebrations lasted weeks, Mephistopheles was at work spreading the currency around and the Kingdom became prosperous and happy. Mephistopheles became the finance minister and central bank head, and coordinated with the other members of his caste at other central banks. These were the same folks who had induced the depression in the first place so they could take over this Kingdom that was resisting them.

Eventually the King sobered up, and in walking through the streets of his Kingdom he found that all had changed, and it was happy and prosperous. When he asked how it happened, and found it was due to his having signed the paper money and credit decree, he was furious.

"What a fraud!" he cried.

His wisest minister warned him that the new power transferred to the finance minister spelled the eventual doom of his throne, and would lead to the diabolical overthrow of the Christianity that he had sworn as monarch to support over all other things, and the total debasement of all womanhood in the Kingdom as was later seen in Holy Germany during the Weimar period. But Mephistopheles countered that it was too late, and that he would certainly be immediately overthrown if he withdrew the paper as the population was so happy and industrious. The King feared the consequences and relented.

Goethe summarized this series of events with the following poetic verse:

> I am fed up with this endless how and when,
> if there is no money, let us make it then.

I used this literary excursion, taking some liberties with the text, to introduce the discussion of the Euro for reasons which will be soon apparent.

The goal of consolidating Europe into one state goes back in modern times to Napoleon Bonaparte's Continental System whose goal was to create a system of Empire that was self-sufficient and would preserve within it its industrial capacity against the exports of Britain. Here we see a substitution of the Christian consolidating principles of the Holy Roman Empire being replaced by purely materialistic considerations. Napoleon was not the only one to see that you must preserve your own industries if you wish to have power, but Friedrich List wrote about it later in Germany and Alexander Hamilton about this time set up the United States with tariffs so that its industries would not be destroyed. Napoleon used his military genius to foster this system but was confounded in Russia as was Germany over a hundred years later in the early 1940s. Germany had sought to create a Eurasian Empire from France to Japan using Japan as a partner. Again, Britain in its traditional classical balance-of-power role, found allies in the United States and Russia to stymie this German project that would have shifted the balance of power against the Anglo-Saxon nations. The propaganda used to justify the war was taken out of the Soviet handbook, the Soviets having just conducted an internal class liquidation between 1928 to 1933 entitled the Kulak class liquidation of ten million men, women and children through forced starvation under the personal supervision of Commissar Lazar Moiseyevich Kaganovich.

The Euro is a new effort led by Germany to achieve a new Continental System. It was Germany that pressed the Euroland nations to extend the NATO Alliance to Poland to protect its industrial investment in eastern Europe in direct violation of the agreements with the drunken Yeltsin. Germany's foremost goal was to create this 16 trillion Euro common market and Euro currency as a direct competitor of the United States where it would finally have a similar market to scale its products. It is for this reason we do not see Germany giving up on this dream just because Portugal at 1.4% of Euroland in GDP or Greece at 1.8% are having problems. These problems benefit Germany though it cries with crocodile tears of distress over the thought of subsidizing the weaker nations while its exports soar as the Euro falls. These German export profits more than offset some lending to the states as Greece and Portugal that are in IMF tribulation, and these exports act, indeed, as a self-

correcting mechanism for the Euro as the trade surplus generated by Germany will act to counter the Euro's fall.

If there are any problems here it is between the bank exposure of the main Euro nations in lending to the banks of Portugal and Greece, and they would be concerned with triggering another derivative crisis as happened when Lehman went down. The pulling of the plug at Lehman detonated parts of the quadrillion derivatives which represent 17.5 times the world GDP of 65 trillion. The currency component of this derivative structure is 58 trillion alone, or nearly the GDP of the entire world.

I hold up before this august audience the June 23 article in the *Financial Times* on quantitative easing of the United States. There is a gigantic fact here that few really understand. It is the 2.9 trillion dollars of Federal Reserve Credit. At the time of the fall of Lehman there was only 900 billion of this credit built up from 1914, and in the three months following the Lehman catastrophe the Fed created one trillion in new credit, or a hundred years' worth, to save the system, and another trillion over the past few years to keep the United States from falling back into crisis and to try to grow it out of its problems. Would Germany want to pull the plug on Greece or Portugal to face another Lehman as they could not be sure how much effect a Grecian collapse could have on the derivative structure? I might add in passing that these quadrillion of derivatives described by Warren Buffett as a potential financial weapon of mass destruction, and whose description was confirmed by the historical events of October, 2008, have not served as a deterrent for their continued utilization as the derivative aggregates continue to mushroom into larger proportions.

A way of analyzing how useful this additional two trillion has been is to divide this base in 2008 of 900 billion into the GDP then of 14.4 trillion, which was a turnover figure of 16. But in 2010 the 2.9 trillion or thereabouts divided into 15 trillion or a turnover ratio of 5. The money is just not being used effectively which is largely reflected by the excess reserves of 1.3 trillion.

The Federal Reserve credit figure is a vitally important figure for it is used by the banks as its base for fractionalizing or expanding loans as a form of money supply. If you use a 1% reserve requirement, the mathematical expansion is over 100 times which is why Milton Friedman calls this reserve base high-powered money as it expands at a huge multiple in the banking system. It is also important to realize that the credit system of these banks is a closed loop and no money leaks from it except when it is converted to cash, and no money leaks overseas unless it is converted to cash and carried overseas. The latter is not easy to do with western nations watching like hawks these cash transfers via

the terrorist laws, or really enemy of the people statutes a la Soviet Russia. Essentially, this credit dollar based on deposits at banks floats against the credit Yuan or credit Yen in a similar manner.

The problem with this floating system is that it is not clean. There are dirty floats all over. And instead of the dollar floating by supply and demand against the Yuan, the Chinese erect a currency tariff against our goods by buying our currency to raise its value so they can dump their goods on us. If currencies truly float, the deficit countries based on excess dollar credits would fall making it harder for them to buy imports, and it would serve as a self-correcting mechanism. This mechanism is interfered with by these dirty floats.

When we talk about hot money in the United States of about 11.7 trillion we refer to deposits or Treasury instruments that can be immediately sold and converted to foreign credits. If this hot money were to be converted all at once into foreign credits, the currency would crash as it would constitute a dollar exposure and not a dollar turnover as the 4 trillion that turns over on the foreign exchange market each day. The only reserves the United States has against this potential run on the dollar is about 300 billion plus of gold at market and currencies at market. This is far too small to tackle the problem and if the gold were sold on the spot, it would crash its price causing it to yield much less an amount than the nominal reserve value. A high Federal Reserve official told me that if any of the Arabian Gulf States were to try to remove overnight many trillions of their foreign investment from the United States, it would be regarded as an act of war and the assets frozen. Even less can provoke the United States as in the case of their friend and ally, Mubarek.

The issue of turnover against exposure discussed above can be easily explained by the following comparison. If you have a billion dollars to trade with, which is hypothetically all my net worth, and I buy and sell bonds all day to the tune of 300 billion dollars, then it would be foolhardy to say that what is my billion of reserves against my trading prowess of 300 billion dollars a day in bonds [*sic*]. But the exposure I have is a billion, and against that exposure the turnover means nothing except as to whether I lose or gain money each day. If I lose two billion dollars, I am broke, and minus one billion dollars. That demonstrates that when the president of the New York Federal Reserve, William McDonough, told me at a gathering: "What is 11.7 trillion (it was less then but I am using the current figure to avoid confusion) in hot money exposure when less than half that amount trades each day?" either he did not know himself or he was purposely trying to mislead me as to the significance of this exposure that can be ruinous.

The three trillion exposure to China due to their surpluses is therefore potentially very dangerous for the United States and other deficit countries as if they converted these dollar credits into Yuan credits as the Middle Eastern countries could, the dollar credit system would also collapse on the foreign exchange markets. It is not likely to lead to a short-term catastrophe as China is not prepared to cease exporting to us and others, nor would benefit from a world depression as it would deter their march into becoming the dominant world power. In any event, China's dollar credits would also be frozen if the effort were initiated, as were those of the Gulf States of Arabia.

Martin Feldstein thinks that China has adopted a two-prong effort to eliminate these surpluses by vigorously encouraging the reduction of savings by a massive increase in domestic consumption and a gradual but significant rise in the Yuan. But in the event Feldstein is wrong, nationalist forces are growing in the deficit countries who are watching their internal industries being destroyed, and while we don't see convulsions in the near future due to these misalignments of currency, we do see it in the more distant future.

Another example of exposure versus turnover is the high frequency turnover in the stock and Forex markets. The average holding or turnover of stock in the United States is twenty seconds. In the Forex markets, which is 70% electronically based on preset algorithmic trading, the roundtrip trades or turnover are completed in under a second on average, and the Big Five players are in and out in under 1/10 of a second. This is truly an unproductive use of capital as it produces nothing of value to the society, as are most of the quadrillion dollars of derivatives.

The Tobin transactional tax to discourage this wasteful expenditure of national resources is one way to redirect bank credit. As John D. Rockefeller laid out for his Standard Oil combine that is best reflected in one of its former components, EXXON, whose Rockefeller principles they still follow, derivatives for decreasing risk are an authentic business purpose but not to gain speculative profit. As John D. wrote in his *Random Reminiscences*, "Standard Oil is not concerned in speculative interests as the oil business itself is speculative enough, and its successful administration requires a firm hand and a cool head." And this principle was carried forward in a recent Annual Report of EXXON that stipulated that derivatives are only used to protect investment but not speculation. An example would be farmers selling their futures in corn to Kellogg to pay for seed, and supplies, so that Kellogg is able to plan on a stable price for their corn flakes but not otherwise for the purpose of gambling using bank credit. Or in the case of EXXON, their selling in the future their refinery production of prod-

ucts to be sure they reaped the money necessary to pay for the building of the refinery while it gives the buyer an assured supply of product at a fixed price they can plan on.

There is a misconception that the creation of bank credit, or the M-3 money supply, is solely the concern of the banks and should remain within the confines of the free market. But the creation of money out of nothing in our fractionally reserved banking system is essentially a transference of the wealth of one part of the population to another, and at the very least should be guided by the government as Dr. Hjalmar Horace Greely Schacht did while he was Reichbank President in 1933 where no bank credit was allowed to be used for unproductive purposes such as speculation. He turned around the catastrophic unemployment situation relatively quickly which should be an inspiration to our Euro friends.

John Maynard Keynes, in his introduction to the 1938 German edition of his *General Theory of Employment, Interest and Money*, declared that Dr. Schacht was the greatest exemplar of his theories. (This approach was replicated after World War II by the Schacht Reichbank protégé, Dr. Wilhelm Vocke, who created the German postwar economic miracle, and my friend, George Champion, who was then head of Chase Manhattan Bank, invited him over in the 1950s to explain this to the American Banking Association). It was Schacht in 1923 who stopped the German hyperinflation by ceasing to supply credit to the currency speculators who were shorting the Mark, and this created a surge in the Mark ending the hyperinflation. The speculators could no longer go to the central bank for credit to cover their short position but had to buy it on the open market.

Similarly, the Chinese authorities blocked the speculators and insulated their economy from the so-called Asian currency contagion of 1997 by buying both the Hang Sang Index and their own currency which the speculators had shorted thereby creating a bloodbath among the speculators—who promptly called in Milton Friedman to call foul as government intervention against manipulation was not regarded by him as part of the functioning of a free market. Creation of money was always historically under the rule of the sovereign whether it was a monarchy or Congress and not to be held in private hands for their use according to their sole discretion.

This does not even cover the lender of last resort role. Even Goldman Sachs had to flee for cover in the Lehman debacle under the Federal Reserve tent despite almost all of their positions being in the right direction, as well as General Electric, who could not turn over their commercial paper liabilities created under the so-called genius of management, Jack Welsh, to save interest expenses against the higher

interest expenses for the more conservative long-term bond issuances, which is another reason for the right of the government to exercise control over this sector because they are the ones that have to bail out or face the destruction of their economy. The thought of this Jack Welsh must cause the great Thomas Edison to turn over in his grave.

We can look at total central bank gold reserves of 30,562.5 tons or 977,984,000 ounces, and divide these ounces into the world M-3 estimated to be 60 trillion, and come out $63,000.00 per ounce. This relates to the earlier value of the dollar as $20.00 an ounce in 1920. This expansion validates Aristotle's contention in *Politica* 1:3:23 that the interest rate system is contrary to nature in that the gold, paper or credit cannot produce its own children, nor the liquidity to cover the interest without either hypothecating the gold, or issuing more paper money, or more credit. What this means in ordinary lingo is that if I own a house, and it is worth ten million dollars, and I sell ten five million first mortgages on it, then I have hypothecated the asset gaining fifty million in credit on a ten million dollar asset. Doesn't that sound familiar in the various alphabet soup derivatives involved in the last Lehman crisis? So when England in 1900 had a 3% gold base against its Pound credits, it had hypothecated its gold over 33 times with similar Pound issuances. It was an untenable gold interest rate system as the dwindling ratio of gold ounces could not sustain a run on the central bank because of the inverse credit pyramid, and the Pound failed in 1931 with the English going off the gold standard. That spelled the death knell of British power.

There is the question of whether gold is in sufficient quantities to allow for expansion of an economy, but the liquidity for the economy can be achieved by the gold rising in value if there is a proliferation of other commodities far in excess of the gold base, and in that sense gold should float as a money in the form of a commodity against other commodities. Therefore, in a system under Sharia law, gold savings would be rewarded as the production of the system expanded, and it would create a much more valuable gold and a certainly honest currency. The rising value of gold in such a situation would also furnish the additional liquidity for the financing of the growth of the economy.

Even a currency separated from gold, whose value constitutes a form of secular transubstantiation, follows the same laws of the interest rate system as it must continuously create the credit or liquidity to pay the interest until it starts to disintegrate in currency crises based on the aggregates becoming unmanageable. This is why historically all currencies so divorced from a metallic metal, and based on the interest rate system, die. The British economist Alfred Marshall was the last one to struggle with this paradox and could not solve it. He could not figure

out how to circumvent the fact that the interest rate system cannot create its own liquidity except through diluting the currency, credit or gold until it expires.

Lord Byron addressed the same issues as Johann Wolfgang von Goethe in his "Don Juan", but spent more time on the issue of the fiat credit and paper system with interest as a control mechanism as the quote below indicates:

"Who holds the balance of the world? Who reigns o'er congress, whether royalist or liberal? Who rouses the shirtless patriots of Spain? (that make old Europe's journals squeak and gibber all). Who keeps the world, both old and new, in pain or pleasure? Who makes politics run glibber all? The shade of Bonaparte's noble darling, Jew Rothschild and his fellow Christian Baring."

This subject has been discussed in scientific terms but has been well established by the Bible in Exodus 22:25; Leviticus 25:36 and 37; Deuteronomy 23:19, 20; Deuteronomy 22:15; and Leviticus 19:36. The Roman Catholic Church incorporated anti-usury statutes in its canon, and never in its early days allowed the hypothecation of the asset, and Dr. Martin Luther, who founded Protestantism, declared usury illegal. In addition, the Islamic Sharia law outlaws usury and interest in all forms. True science and the Bible are always in strict accord as can be seen in here as in the famous Michelson–Morley experiment at the close of the 19th century which exploded other myths of the last centuries as this paper does for the imaginary money of our time.

# GRAVITATIONAL TENSION ABOUT THE EARTH

You may not think so, but the distant stars do affect our everyday lives. If you've ever taken a physics course in school, you've probably heard that inside a sphere the net gravitational force is zero. That's because there is a force which pulls an internal object to the center from one side and to the surface on the other. The two opposing forces are equal. But, even though the *net force* is zero, the gravitational *tension* is not zero. Half of the tension pulls the object up and the other half pulls it down. This effect is the cause of inertia—the tendency for a body to resist acceleration such as the outward push you feel in an automobile when going around a corner, or accelerating or coming to a stop.

Assuming the earth is at the center of the universe, and that the mass of the universe is $6.6\times10^{56}$ gm and its radius is $1.3\times10^{28}$ cm (about 13.7 billion light years), let's compute the gravitational strain at the earth's location caused by the two halves of the universe about the earth's central position.

To compute the gravitational strain of the universe about the earth we assume that the matter in the universe is distributed evenly. Next, we need to compute the effective distance to the center of mass, also known as the center of gravity of a hemisphere. The technique we shall use to compute the tension is to picture two equally-spaced masses, each corresponding to the total mass of a hemisphere and using Newton's gravitational force equation for that mass measured from the earth to the center of gravity of the hemisphere.

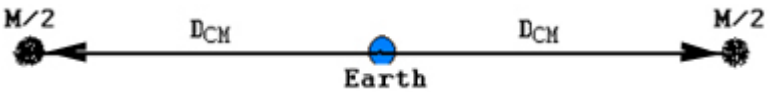


**Figure 1:** The Tension Upon the Earth Between Two Halves of the Universe.

Our situation is pictured in Figure 1. $M/2$ denotes the concentration of half the mass of the universe ($M$). Earth is at the center of the line, and the distance to the center of mass of each hemisphere is $D_{CM}$. Now, for a homogeneous sphere, the center of mass is a distance of

$$D_{CM} = \frac{3}{8}R$$

from the earth, where R is the radius of the sphere which, in our case, is the radius of the universe. Using the above value for the radius of the universe yields $D_{CM} = 4.9\times10^{27}$ cm (5.1 billion light years).

The gravitational pull (or tension) between the two masses is given by Newton's gravitational formula as:

$$F = G\frac{mM}{D_{CM}^2}$$

Since $G = 6.673\times10^{-8}$ cm$^3$ gm$^{-1}$ sec$^{-2}$ and $m$, the mass of the earth, equals $5.97\times10^{27}$ gm, by using the above mass of the universe we find that the gravitational force (or *tension*) for each hemisphere is:

$$F = 1.1\times10^{22} \text{ gm-cm/sec}^2. \quad (1)$$

Since there is a balancing "other half" of the force due to each hemisphere, we are not accelerated to the stars away from the earth, but the tension is real and equal to that derived in Equation (1). We feel the earth's gravity because the earth is below us, but the only way we can feel the universe's tension is to accelerate, to try to pull in one direction over another, thus making it non-uniformly directed. That effect is called *inertia*. The reason you cannot see how the distant stars could cause "inertia" is that you are trained to think of gravity in terms of a downward pull, instead of a field (like a fluid pressure). We are not torn apart, of course, because the pressure or, *tension*, is distributed throughout every atom of our being (the same reason fish are not crushed under the weight of thousands of feet of water).

**Conclusion**

In earth's geocentric position, the gravitational stress induced by the universe is considerable; about 11 quadrillion times the strength of earth's gravity, which is 980 gm-cm/sec$^2$. In our analysis we looked along only one line of sight; the actual stress is much higher for half of the universe is either side of us no matter which direction we look or no matter where we are. If we move in a forward direction, the half of the universe before us perceives us as starting to fall towards it (downhill) and eases its pull accordingly; but the half behind us sees us as trying to escape "uphill" and pulls us back. That is what inertia is all about and is why geocentricity requires that inertia be due to the gravitational field of creation. With numbers like that, it is believable.

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We affirm that no man is righteous and so all are in need of salvation, which is the free gift of God, given by the grace of God, and not to be obtained through any merit or works of our own. We affirm that salvation is available only through faith in the shed blood and finished work of our risen LORD and saviour, Jesus Christ.

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– Isaiah 8:20

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