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Abstract

What is wealth? This paper proposes wealth and poverty are opposite sides of the same coin and to know the source of one is to understand the cause of the other. It delves into the premise that if contemporary economics could consummately answer the question: what is wealth? scarcity, economic strife and poverty would not exist in the world today. Two kinds of wealth are discussed, aesthetic and technical wealth. Is it possible that contrary to belief, the use of assets and liabilities as a measure of wealth belong to the aesthetic view in the sense that in human psychology an asset is merely an object or factor that evokes positive emotional feelings? The capacity to measure this kind of wealth using complex mathematics does not turn assets and liabilities into real or technical wealth. Consequently wealth may be none of the popular or common notions human society perceives; this includes money, assets and so on. In addition to the psychological influence the tendency of money and assets to fluctuate over time reinforces its aesthetic stature. Businesses commonly publish financial statements in national media often as a legal requirement or a means of demonstrating their financial health or quite simply the state of their wealth, when in fact a financial statement, despite the mathematics applied to it, may be considered an example of aesthetic wealth; hence it is not reliable for clearly understanding or appreciating what wealth is as it is common knowledge even robust businesses can post attractive profits for the year in review then post losses for the same period the next year. Money is unlikely to be a form of real wealth either, it behaves like psychological or aesthetic wealth; the value of a large bank account which could purchase a boat, years later after the ravages of inflation, may only purchase a golf cart. Appreciating this quandary is important in the sense that the rational processes motivating it affect financial literacy. There are many conundrums like this where what is observed is not necessarily what is taking place that defy conventional wisdom in economics, for example; the expenditure fallacy. Even brick and mortar assets are likely to be a form of aesthetic wealth rather than real wealth; the value of property can change dramatically year on year. Wealth is only as reliable as the economic operating system it functions in, in the same way that, as earthquakes demonstrate, a building, no matter how well-built, has its sturdiness ultimately determined by the ground it stands on. Consequently, this paper introduces the

concept of *real* or technical wealth; this is the capacity to understand what wealth *actually is* by being knowledgeable about how it functions at the level of the economic operating system. Blurring the lines between aesthetic and technical wealth can lead to an ambiguity about wealth as well as an inability to diagnose what prosperity is and where it originates from in the economy that leads to the inability to protect aesthetic wealth or create it in sufficient quantities. It also may lead to the immense disparities and peculiar discomforts of contemporary economies impaired by scarcity. A consequence of this may be a modern day inability to end poverty, unemployment and other economic problems. Consequently this paper employs cost curves to explain how the real wealth of businesses can be affected and determined by the economic operating system they function in. It goes further to employ the equation of exchange to demonstrate how wealth can be created in an economy at constant price and how the calibration of the economic operating system predetermines whether a country or economy is ultimately wealthy or wealthless.

The Consequences of Contemporary Economics

The economy is central to the capacity of any country in the world to provide for inhabitants. It is at the core of the nexus of livelihoods and occupations that determine the fate of businesses and households. It is no secret that the contemporary economy is failing the challenge when it comes to providing adequate resources for businesses and households. Schmitt and Conroy (July 2010:1) note that even if "jobs [were created in the US] from now on at a pace equal to the fastest four years of the early 2000s expansion, we will not return to the December 2007 level of employment until March 2014. And, by the time we return to the number of jobs we had in December 2007, population growth will have increased the potential labour force by about 6.5 million jobs. If job growth matched the fastest four years in the most recent economic expansion, the economy would not catch up to the expanded labour force until April 2021. Even if job creation rates were as high as the fastest four years of the 1990s recovery, we would not return to pre-recession employment levels until September 2012, and we would not cover the increase in the potential labour force until September 2014." The contemporary economy is failing to keep up with the needs of businesses. Business Wire (2010) reports that "Small businesses [in the US] report losing an estimated \$2 trillion in lost profits and asset valuation since the recession started in December 2007, according to a new study released by Barlow Research. That works out to an average loss of \$253,000 for each of the eight million U.S. businesses with sales between \$100,000 and \$10 million. Larger companies have been less affected and are recovering more quickly according to the survey, which was fielded in July 2010. When asked to estimate the chances that their company will survive the next year, 14% are less than 50% confident they will still be in business by August 2011. 'One in seven small business owners are estimating their chance of survival by the flip of a coin,' said Bernie Kuechler, the Barlow Research Analyst who authored the study."

Amongst the hardest hit industries in recent years has been the aviation industry. The Centre for Asia Pacific Aviation (December 2009) noted that "2009 has been the worst year ever for aviation; global traffic declined 3.1% year-on-year. Hidden in that statistic is the rapid contraction of legacy airlines, as many have reduced capacity to cut losses and to keep yields from falling further." It forecasts "2010 is shaping as the year for industrial confrontation – and may as a result see more fundamental change, including market exit of some famous brands, than in the past year. As a minimum, there will be major shifts in the shape of some of those well known entities. British Airways for one seems unlikely to emerge in its existing form, unless there are major attitudinal shifts across the board." Industrial action in the aviation industry is a strong illustration of rift between capital and labour caused by inadequate financial resources, creating ever increasing friction between businesses and labour organisations. Reuters (August 2010) reports that "Cabin crew at Irish airline's Aer Lingus have voted overwhelmingly to take industrial action in a row over the implementation of cost reduction measures, but do not intend to cause flight disruption. The crew, represented by the IMPACT trade union, voted 96 percent in favour on a turnout of 67 percent, IMPACT said in a statement on Wednesday. Cabin crew will engage in workto-rule under the terms of their existing contracts and not adhere to changes the company has tried to introduce as part of a cost-cutting programme. The union balloted members for industrial action after management introduced new rosters. They say the rosters go beyond what was agreed to in Greenfield plan proposals."¹

No region or country is spared from cost and price issues as well as the increasingly inadequate tools available in contemporary economics with which to solve internal financial stability and growth problems. Makombe (April 2010) writes "For many Zimbabweans, inflation brings memories of the time when prices of mainly basic commodities changed daily and nothing was affordable. This also brings memories of government response to high inflation, especially the price slashes in 2007 when retailers were ordered to sell commodities lower than the marked price. Price slashes resulted in empty shelves as producers either withdrew or held on to their stocks citing uncompetitive prices which were set by government. Threats of increased inflation are, however, coming at a time when Zimbabwe is using multiple currencies, one of the medicines that steered the country from hyperinflation to deflation...This leaves the authorities grappling for rational and legitimate solutions to the threat of high inflation...In Zimbabwe, it costs producers as much as US\$0,93 to make a US\$1, while in other countries it costs significantly less, around US\$0,60 to make a dollar. A producer in Zimbabwe would pay US\$0,12 for every dollar they borrow while in some countries it is like free money with the highest being US\$0,05 for a dollar. This high cost of doing business has relegated Zimbabwe into a retail outlet of more efficient producers like Brazil and South Africa..."²

In addition to this a growing frequency and potency of natural disasters and the limited capacity of the contemporary economy to generate sufficient resources to enable governments to either prevent, respond or recover from these disasters should be a growing concern. The U.S Geological Survey (USGS) (2010) records that "According to official estimates, 222,570 people killed, 300,000 injured, 1.3 million displaced, 97,294 houses destroyed and 188,383 damaged in the Port-au-Prince area and in much of southern Haiti." Haiti continues to struggle to recover from the effects of this earthquake. Recently CNN (2010) reports of the floods in Pakistan that "More than 800,000 houses have been damaged or destroyed; 2 million people have been forced to flee their homes; hundreds of bridges have been washed away, cutting off communities from relief supplies." The BBC (2010) further reports that "Up to 3.5 million children are at high risk from deadly waterborne diseases in Pakistan following the country's floods, a UN spokesman has said. In southern Pakistan, floods continue to cause havoc with water surging from the province of Sindh to neighbouring Balochistan." It is further expected that "6 million people are estimated to need food aid, 722,000 homes have been damaged, and US\$466 million is required to meet immediate needs." It could take Pakistan three or more years to recover

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¹ Reuters, August 2010, "Aer Lingus cabin crew vote for industrial action"

² Makombe, Leonard , April 2010, "High Production Costs Fueling Inflation"

³ CNN, 2010, "U.S. to boost aid as number of homeless doubles in Pakistan floods"

⁴BBC, 2010, "Millions of Pakistan children at risk of flood diseases"

⁵ BBC, August 2010, "Millions of Pakistan children at risk of flood diseases"

from the major floods that have affected the country over the past few weeks. Unprecedented high temperatures have lead to deaths and loss of wheat crops in Russia. CNN (2010) reports "...parts of Russia look like an inferno -- hundreds and hundreds of wildfires are burning in Western Russia. The flames have killed at least 40 people and they've prompted President Dmitry Medvedev to declare a state of emergency around 500 towns and villages. In Russia the devastation of wheat crops by raging fires is having a significant impact on international wheat prices. CNN (2010) further reveals that "raging fires are devastating huge swaths of Russia's farmlands...To give you a -- a sense of the catastrophe, in one village of 500 people, nearly every house is burned to the ground. Russia has been suffering through a severe drought and scorching heat, which has made it especially vulnerable to the flames. Authorities say that many of the fires were started accidentally. Well, the fires also hitting hard at Russia's agricultural heartland and its precious what crop. And that is causing repercussions around the world."

These few snapshots show that it may take time, but eventually it will have to be realised that the greater catastrophe and threat to human well-being will not be natural disasters, but a growing failure to upgrade the contemporary economy which left as it is will inevitably comprehensively fail to deal with natural and man made disasters. The socio-economic consequences of this are that the contemporary economy may be on a trajectory to one day comprehensively fail to resolve impending disasters unless the issue is granted the attention it deserves.

Wealth and the Economic Operating System (EOS)⁸

The poor cannot wait indefinitely for contemporary economics to figure out what poverty is; the prosperous cannot afford to wait until they are impoverished for contemporary economics to be able to explain why they were once wealthy and the world cannot wait until it is obliterated by natural and man made disasters for contemporary economics to be able to finally explain how it can be made secure; if it is not known for certain what causes poverty in the world, then it ultimately cannot be certain it is known what causes wealth.

It suffices to say that in general humankind are naturally pleasure seeking. If what brings about wealth were truly known then most people would seek it and be wealthy, and if what causes poverty were truly known then generally many would avoid it and escape being impoverished in some shape or form. However, people see poverty coming, but they cannot escape its path and they see wealth but try as they might they cannot get hold of it.

⁶ Kaiser Daily Global Health Policy Report, 2010, "Pakistani President, State Dept. Official Discuss Post-Flood Rebuilding"

⁷ CNN, August 2010, "Russian Wheat Production Plunges"

⁸ The inferences and arguments of this paper are drawn from: Punabantu, Siize. (2010). "The Greater Poverty & Wealth of Nations: An Introduction to Operating Level Economics. *How every economy has the latent financial resources with which to finance the doubling of its GDP in one year at constant price*. ASG Advisory Services Group: Lusaka, [ISBN: 978-9982-22-076-7]

Clearly, something is amiss. The majority of people and countries today are exposed to varying degrees of scarcity and strife; prosperity is not the norm. This condition easily leads to the conclusion that difficult socio-economic circumstances that plague countries are caused by a problem economics, businesses and finance do not as yet have the capacity to resolve. An objective of this paper is to address underlying reasons for this and point out possible solutions.

The economic operating system in its fundamental form refers to the circular flow of income (CFI). This paper proposes that wealth in an economy is determined by the economic operating system at work within it. The operating system can have two fundamental settings; one which replicates poverty or scarcity throughout the economy as is the case with the contemporary economy or one that replicates wealth and prosperity creating two very different conditions. This paper will attempt to demonstrate that economies are affected by scarcity and poverty to a disproportionate degree as a result of having an economic operating system calibrated in such a way that they involuntarily experience perpetually adverse conditions. This paper draws on the concept that each economy contains within it the latent finances with which to more than meet human needs and that an economy is able to set or calibrate its economic operating system such that it generates a persistent prosperity instead of persistent scarcity. On the other hand the contemporary economy is not a wealth creating economy, the fact that it pushes businesses toward zero profits entails that the calibration of its operating system is one that relentlessly generates poverty and scarcity. The economic operating system predetermines whether an economy is wealthy or impoverished. If this is true it follows that since presently all modern economies in the world follow the same circular flow model there are no countries or economies in the world today that can be considered wealthy not even the top 20 countries, in terms of per capita income, on the World Bank's World Development Indicators (WDI) database. This database has Luxembourg ranked highest at US\$111,182 per capita to Singapore at US\$37,600 per capita, 10 it is interesting to note that though the top twenty countries may appear to have very high per capita incomes and may be considered wealthy the operating system on which they function is linear¹¹, persistently generates scarcity by pushing businesses toward zero profits and consequently would still require they be classified as poor. The extent of their development may be considered significant, but only in the context of the limitations of the contemporary economic system in which they function. The circular flow of income followed by contemporary economies entails there are only economies facing varying degrees of scarcity with the least impoverished being countries labelled as "developed" and the most impoverished labelled the "least developed". Consequently humanity does not have a reference with which to measure what a wealthy economy is outside the context of a linear economy and the contemporary economic (CE) operating system is thus far incapable of creating a wealthy economy only variations of resource

⁹ The historic reasons for this are covered in Punabantu, Siize, 2009, The Greater Poverty & Wealth of Nations (GPWN)

¹⁰ World Development Indicators database, World Bank 2009

¹¹ Linear means it has not resolved the problem of implosion, see Punabantu, Siize. (2010:94)

constrained economies incapacitated by implosion. 12 The capacity for human industrial and infrastructure development at current levels have barely been tapped and it is likely modern economies, regardless of how advanced they are perceived to be or how significant their contemporary infrastructure development may be, are still at a relatively primitive stage of economic advancement as a result of limited financing wrought by implosion. In order to change the reality of scarcity many economies experience today this paper proposes they will have to change the settings, calibration or configuration of their economic operating systems such that the economy is upgraded to enhance rather than suffocate businesses (firms) and productivity. The reason developed countries today are considered wealthy has to do with inordinate levels of scarcity. When it comes to blurred lines between aesthetic and technical wealth or the relativity of value to which human psychology is prone to being mislead; human rational processes employ blinders or limiters as a way of enhancing some of the cognitive aspects required for rational thought and decision making in an environment inhibited by of scarcity, however, this does not entail these rational conclusions are true or guaranteed. What is obvious is not always what is true. As will be shown in this paper, firms or businesses play a crucial role in the processes that lead to implementing a wealthy economic system. A wealthy economy essentially will be dynamic¹³ not linear, have full employment and most importantly will no longer suffer from the implosion of financial resources; hence it should be able to arrive at a stage where it is able to cope with and recover from any kind of disaster whether it is a global killer, is natural or man made. There are currently no economies in the world capable of this consequently reinforcing the idea there are no wealthy countries in the world today; only terrestrially bound countries run on linear contemporary economic models experiencing various stages or forms of scarcity.

Firstly, it is important to analyse what wealth really is. Wealth tends to be measured in many ways. It can be viewed as the level of happiness a person enjoys or the amount of possessions owned, or the equivalent value held in monetary terms and if ownership is not evident it can also refer to the control of these elements. It can be viewed as the capacity of an economy to protect itself from or recover from natural and man made disasters. Money is often viewed as the most useful and liquid form of wealth as, unlike fixed assets, it is freed from the cumbersome process of having to be exchanged to make a purchase. Money is used as a measure of value, even for the determination of assets, goods and services. Is it therefore correct to view money as the most sophisticated form of wealth to hold and if so what are the operating level processes that give money the power to measure and store wealth? Are the ideas behind these systems accurate enough to have confidence in money? As noted earlier the manner in which the contemporary economy views wealth may not be accurate since it is calibrated to generate scarcity and every economy in the world follows this system. To speak of wealth in this system though rational becomes an oxymoron. This problem has also affected the financial sector and how accounting views wealth. Since

¹² If the reader is unfamiliar with the term 'implosion' the recommended reading is Punabantu Siize (August 2010) "Financing the doubling of GDP in one year at constant price" see appendix for URL.

¹³ The term dynamic refers to an economy that no longer suffers from implosion; it consequently acquires a geometric annual growth rate.

wealth is rendered scarce by the contemporary economy a tendency to perceive assets and liabilities as measurements for wealth has arisen in financial culture. Though this may be pragmatic there are reasons why seeing wealth in this way being true, but not entirely accurate can lead to economic crises.

In contemporary economics wealth can be described as productivity or the goods and services within an economy able to protect and satisfy the needs of inhabitants. Every year an economy through its factors of production places a quantity of goods and services in the market. People are given an opportunity to access these goods and services. The modern mechanism by which they acquire products is money. Hence it can either be said that the first facilitator of wealth, in terms of the capacity to acquire goods and services, is money, however, using the same logic it can be said that the first barrier to wealth is money. Which is it? Is money a help or a hindrance when it comes to the creation of wealth? The fact that this question needs asking is in itself an indication of problems in contemporary economics concerning the role of money in facilitating growth. Wealth at the macroeconomic level is associated with Gross Domestic Product (GDP) in that the total volume of goods and services produced in a year represents the wealth of an economy. This wealth when transferred from the macroeconomic perspective to the microeconomic level has to be shared between diverse consumers in the market, some representing households others firms; their capacity to access these goods and services can be referred to as wealth. But what determines accessibility to this wealth? This brings us to the idea of income. In order to use, purchase or own goods and services people must first acquire a source of income. Traditionally, people enter some kind of employment in order to have an income; even if that employment in the modern world entails actively or passively owning or having owned factors of production. As a result people generally work in firms which employ factors of production in order to supply the very goods and services they will eventually purchase. This creates a circular flow of income in which money moves systemically between households and firms in a continuous cycle serviced by money supply. At this stage it can be assumed that wealth above all relies on a system. This system operates by distributing needs between households and firms; therefore it can be described as an operating system through which an economy functions. Hence the origin of wealth is likely to be determined by the economic operating system. If this is accurate, technically, wealth is not the variables in the system, that is, possessions, it is not assets and liabilities, it is not money, neither is it GDP; it is not even "the value of all assets owned net of all liabilities owed at a point in time." Wealth is simply how factors or variables in an economy are defined by the economic operating system (EOS)¹⁴ they function in. To be understood scientifically, wealth may have to be observed at the operating level of economics. Wealth functions in an operating system without which wealth and everything understood about it or used to define it may have little meaning. The failure to grasp this, like the expenditure fallacy, may be particularly difficult. The economic operating system not only predetermines the output of goods and services; it predetermines the level of employment in an economy and therefore whether those goods and services can or cannot be bought and sold. It determines the level of readiness in an economy to protect itself or recover from natural and man made disasters.

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¹⁴ The Economic Operating System (EOS) is from Punabantu, Siize, 2009, (GPWN)

All the chattels of wealth human society and psychology endows with value be they money, assets, capital, raw materials, skill, education, employment, food, health; none of these may be examples of real or technical wealth, they are likely to be examples of aesthetic or psychological wealth since they may have no value outside a properly functioning economic operating system. Should this value fall to zero it might as well have been imaginary. Aesthetic wealth can also be referred to as 'natural' wealth in the sense that it involves the psychological processes by which human beings through history have developed likes or dislikes for objects, factors and actions. However, the economic operating system endows objects, factors and actions with the concept of financial value. Aesthetic wealth is dependent on human psychology and emotions. It is important to understand this argument. In essence it means there may be nothing very special about aesthetic wealth; being rare in a contemporary economy buffeted by scarcity may make wealth seem extraordinary in human culture, however, this rarity only prevails as a result of the historic circumstances through which scarcity has remained the natural state of the contemporary economy. It is important to be able to grasp this explanation otherwise people in general will tend to harbour misconceptions about wealth.

To illustrate this point further; the words on this paper are meaningless to someone who is either illiterate or does not know the language it is written in; the words and letters would appear merely as attractive or repulsive organised squiggly lines, they contain knowledge, however, it is the graphics and artistry that can be compared to aesthetic wealth in the sense that the artistry of the alphabet or letters and words represent the factors or variables in economics such as assets, liabilities and so on. The attractiveness of the squiggly lines without knowing what they are is representative of the attraction to assets and aversion to liabilities defined by money used in economics and finance. Nevertheless, liking or disliking something based on aesthetics is not necessarily a substitute for real or technical knowledge about it. However, historically liking objects and actions for aesthetic reasons is likely to have spilled over after the introduction of money as a measure of value. When money was introduced to trade and began to support cost plus pricing the circular income flow created overtook the valuation of wealth. This entails it is possible there are times the lines between aesthetic and technical wealth become blurred; this may seem harmless, however, it is quite dangerous as it can mislead human beings into thinking simply managing aesthetic wealth diligently can protect them from scarcity or economic hardship; this type of thinking can lead to financial misconceptions that drag economies down into the dregs of recessions, one example of this is the property bubble and issuance of junk bonds that lead to the recent global economic crunch. This collapse could be a classic example of cost-plus pricing or 'inflating' gone awry in contemporary economics described as over-valuation. Ivry (September 2008) explains that "Credit markets froze in August 2007 after two hedge funds run by New York-based Bear Stearns Cos., the fifth-largest U.S. securities firm, collapsed due to the deteriorating value of its mortgage-related holdings. An inability to set a price on such securities has frozen the market, said Joshua Rosner, managing director at Graham Fisher & Co. in New York. "It's not a liquidity problem, it's a valuation problem," Rosner said. After its value fell 93 percent in a week, Bear Stearns was bought by New York-based JPMorgan Chase & Co., the third-largest U.S. bank by assets, in a bailout orchestrated in March by the Federal Reserve." 15 Referring to the crisis as a valuation problem shows the difficulty a contemporary economic system has with the determination of value. The recession was a clear indication that even brick and mortar assets are subject to relativistic value and are aesthetic not technical forms of wealth. The economic operating system which relies on cost price rather than price inflating practices seen in mark ups could have prevented this scenario or enabled a rapid recovery from the losses it created. This would have avoided the socio-economic impact seen in the ensuing foreclosures and forfeitures. Financial enterprises battle to remain profitable through the same valuation process all other businesses use to escape implosion; they value themselves using aesthetic value and seek the highest possible price margins for the products they create, sell or distribute and when these processes become extreme the consequence can be recession. Even though governments the world over have put in place measures in the financial sector to prevent the same crisis from happening again; can enough have been done if financial institutions are still operating in a system were they are still asking for more than what the product being distributed is worth, and they cannot logically refrain from doing this to survive until the system is changed? Consequently no real claim to stopping these kinds of crises can be made until a new economic operating system is in place. Therefore, systemic knowledge or 'wealth' can only be obtained by there first being a system by which 'letters and words' are recognised and understood in order to be able to distinguish aesthetic from technical wealth; in layman's terms these 'systems' are referred to in human society as language. Hence, when this paper points out real or technical wealth should not be assets and liabilities without recognizing the economic operating system they function in it prescribes this in the same way that words are meaningless without a language; without a language or system for understanding the letters, words and sentences they are merely interesting organised squiggly lines people either find attractive or repulsive. Hence, wealth may be either aesthetic or technical. There are reasons why aesthetic wealth is often mistaken for technical wealth. Money has played a significant role in this problem since by being a measure of value it uses mathematics to appear to endow aesthetic wealth with technical properties. Mathematics and mathematical processes can be described as a kind of language and are a form of technical wealth; however they are used in financial accounting to measure assets and liabilities which are aesthetic forms of wealth. Assets and liabilities tend to be aesthetic means of understanding wealth because they rely on the pleasure principle in human psychology and their value is relativistic meaning it is unreliable as it changes over time. The value and quantity of assets and liabilities remains relativistic as they are determined by the economic operating system in which they function. Financial literacy therefore begins with knowledge about the economic operating system, how it affects businesses and productivity and most importantly how it is calibrated. The circular flow of income is an organic or naturally evolved economic operating system with three basic factors namely the capital, raw materials and labour interacting with themselves and the greater economy. The operating system assigns value to these factors and what they produce making them likeable or dislikeable, that is, assets or liabilities. When the order and mathematical proportions of these assets and liabilities become visible through intimate knowledge of the economic operating system financial literacy concerning the nature of

¹⁵ Ivry, Bob, September 2008, "Paulson Seeks Mortgage Value That Eluded Bear, Lehman"

wealth is gained for the first time, and through this, knowledge of the capacity to fully create, regulate, control and protect aesthetic wealth or prosperity. Without this knowledge, when the operating system functions inappropriately or is faulty the impact will fall squarely on aesthetic wealth and consequently affect human psycho-social and physiological welfare without a clear indication of the inherent cause. The rise and fall of value, changes in a company's returns and the balance sheet, performance of stocks, rising or declining property values, inflation, deflation, changes in the cost of labour are all indications of fluctuations within the economic operating system people are only able to observe at the superficial level through pleasure and pain, the like or dislike of gains and losses; it does not matter at this stage that they know calculus or how to add and subtract the value of these using money as a measure of value. The calibration of the economic operating system is the single most important determinant of wealth, it will be dealt with in this paper when the equation of exchange is introduced. Every professional engaged with the economy be it through money, accountancy or business may need to become conversant with the economic operating system and its calibration in order to understand what wealth really is, how to create it in sufficient quantities and how to protect it at the individual and institutional level. Though psychological, the importance of aesthetic wealth cannot be overemphasised; food and water are a form of aesthetic wealth (causing like or dislike), yet without them human beings cannot survive; however, even food and water are not sufficient to be classified as real or technical wealth since their value is relativistic. Not being special has advantages in that it entails there is no reason why the economic operating system cannot provide food, water or any other example of aesthetic wealth at a stable price and in quantities equal to or in excess of global human nutritional requirements. When adverse changes occur within the operating system the economy may experience systemic dystopia (SyD)¹⁶ where the levels of aesthetic wealth are insufficient to satisfy needs within the economy and when this occurs in the extreme the problem is referred to as intense levels of scarcity or poverty. This adversity can take place to the extent that, as a result of the rarity of wealth and being uninformed about the workings of the economic operating system, human beings begin to believe that to be wealthy a person must have extraordinary qualities; when in fact the availability of wealth is being determined by the underlying operations and processes of the economic operating system. If there is nothing special about being wealthy, then it follows there is no reason why anyone should be poor. By understanding operating level economics¹⁷ it also follows that if poverty and scarcity are the norm there is no reason why abundance and prosperity cannot be the norm. Wealth and poverty are merely alternate sides of the same coin; one cannot be fully grasped without the other. Problems related to wealth experienced by an economy such as poverty, hunger, unemployment, inadequate shelter, poor drinking water, illiteracy, lack of education, recessions, foreclosure, inflation, deflation, bankruptcy, industrial action are symptoms of systemic dystopia unique to the economy inhibited by scarcity designed by humans and all its woes may have one source and one means of correction; namely the economic operating system. The fact that any and all of the listed economic and development problems are related to wealth entails they can all be controlled by relevant

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¹⁶ Punabantu, Siize. (2010:56)

¹⁷ For more on Operating Level Economics (OLE) see Punabantu (2010) GPWN.

institutions the reason being they occur within the ambit of the economic operating system. Literacy concerning the workings of the economic operating system is therefore imperative to the capacity to generate persistent prosperity and maintain financial system stability in an economy. Any financial institution that manages wealth on behalf of clients be it a pension fund, broker or any other kind of institutional investor is duty bound to demand the economy be managed at the operating level as this is the only level at which the wealth they manage can be protected. The repercussions of the global recession and the extent of their reach may be a stark indication of this. An economy cannot safely achieve satisfactory levels of wealth without correcting problems in the quality or design of the operating system driving its productivity and determining the level of resources available to the population. Firms or businesses rely on the economic operating system to create an environment conducive to the generation of wealth and functional financial system stability. The inadequate operating system used in contemporary economics pushes the economy toward zero growth¹⁸ forcing business to struggle to survive creating a unique human economic culture driven by scarcity where wealth is prized as it is rendered unnaturally rare. This paper will later use cost curves to demonstrate how this flawed operating system is damaging businesses and making scarcity or poverty the norm rather than prosperity.

Adam Smith, in the publication, The Wealth of Nations, described wealth as the annual produce of the land and labour of society. Smith is correct, in the traditional sense; however, he is in fact describing what this paper refers to as aesthetic wealth. Think of the modern economy as a magician¹⁹ with many sleight of the hand tricks and props (output, assets, liabilities, costs of production etc) with which to captivate minds to the extent that the audience (society) become overwhelmed by the drama of believing these are riches and shortfalls (the rat race). When the magician performs a trick try not to observe the props or the hand the magician draws your eyes toward observing, instead watch for the hand that is palming and obstructing what you are not supposed to see. If this is not done these props are not perceived as tricks but seem to be able to determine life and death. To the unwary they become a means for the magician to hold the audience hostage, when in fact wealth and prosperity, in an economic operating system that is functioning correctly, should be created in sufficient quantities as to prevent it from causing socio-economic trauma. To believe that wealth is measured exclusively by output, assets and liabilities without understanding the role of the economic operating system may be financially misleading; it could worsen the prevailing inability of contemporary economics to end poverty and create satisfactory general levels of prosperity. As explained earlier, in determining the scientific origin of wealth; it follows that naturally the scientific origin of poverty is being determined. It is unlikely one can be understood without the other. It follows that if what causes wealth were understood by scholars and planners, economies would not be as arduous to manage as they presently are; wealth would not be as difficult to produce and protect neither would it take centuries to create; poverty would no longer exist today. This not being the case could be a clear indication contemporary economics has only scratched the surface of the origin or cause of wealth. It has also been pointed out that economics tends to define

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¹⁸ Punabantu, Siize. (2010: 86)

¹⁹ Ibid.,p.219.

wealth by assets and liabilities rather than the quality of the economic operating system giving those assets, liabilities and factors of industrial organisation value that is more consistent over time; this is likely a technically flawed approach.

Cost Curves & EOS

The scientific origin of wealth may begin and end with the economic operating system; invariably a firm or business uses the financial system to allocate resources to factors of production engaged toward diverse outputs. At this stage it may be necessary to assess why scholars have been unable to see the origin of the debilitating effects of systemic dystopia in human financial and socio-economic affairs. Several problems facing the design of the contemporary economy have been identified.²⁰ One of these is that the modern economy renders worthless as much as 100% of its useful financial resources.²¹ Cost equations will be introduced here to prove this is true; in order to escape this problem businesses are forced to charge more for products than their real value or cost price. Being unable to conduct business at cost price encourages price determination where the market begins to play with psychological price levels which can compromise the accurate workings of demand and supply. Why have these losses not been identified in accountancy? One of the technical reasons why losses to implosion are not identified in accountancy is that financial statements are considered accurate when income equals expenditure or assets and liabilities are balanced; look at a balanced financial statement with identical values at the bottom of asset and liability or income and expenditure columns; accounting tends to accept it is complete with this kind of balancing when in fact the most important aspect of finance and the economy, namely the economic operating system, has not been incorporated into the financial report. The expenditure fallacy shows that implosion affects expenditure by impairing it from effectively transferring financial value to the factors attributed to in the balance sheet. This occurs as a result of an exchange of money, for example, payments to salaries and wages causing a withdrawal of finances from capital and payments to capital causing a withdrawal of finances to salaries and wages²² that is not reflected in the final outcomes of financial reports; this renders implosion invisible to accountancy. Consequently, financial statements are useful, but technically inaccurate as they do not reflect losses to implosion, to the great disadvantage of businesses which need the financial resources being arbitrarily lost to implosion to survive. This dysfunction in the circular flow of income can be traced back through the history of economic thought possibly to the introduction of money into trade as a means of better facilitating transactions and supporting profit. What arose from this was an expenditure fallacy²³ where buyers and sellers in the market exchanging goods and services through money were unaware that allocating money to factors of production creates economic inertia through implosion in the trade process. This loss is hidden from businesses as transactions take place by virtue of the

²⁰ See Punabantu, Siize, July 2010, *Financing the Doubling of GDP in One Year at Constant Price* for more on this subject.

²¹ Punabantu, Siize. (2010:92)

²² For a more detailed explanation see Punabantu, Siize, July 2010.

²³ Ibid.,p.224.

fact they believe they are paying for labour and capital.²⁴ Further, implosion between households and capital in the CFI creates a vacuum of financial resources credit creation is unable to resolve. The fact that credit creation does not solve the problem of implosion entails there will be a natural propensity for debt to rise over time since interest payments weigh debtors down and reduce the efficiency and capacity with which borrowed money is repaid. Implosion subtracts useful financial resources from any form of productivity engaged with finance be it in the private or public sector aggravating the ability of productivity to compensate for liabilities such as borrowing. In a scenario such as this, since credit creation does not neutralise implosion as it was intended,²⁵ it would not be improbable to suggest that businesses, individuals and public institutions in aggregate in any economy buffeted by scarcity face difficulty when it comes to their capacity to repay aggregate debt, consequently, stability must rely on the belief debts will be repaid rather than the actual capacity to repay them, and this makes sense of why contemporary economies are greatly affected by confidence levels. It is unlikely to be a coincidence that US total public debt stands at 93% of GDP at US\$13.375 trillion, 26 the United Kingdom's public debt stands at US\$1.452 trillion or 53.15% of GDP. Levels of debt such as this are a likely indication that services required to restore imploding financial resources are missing from the economy as a result of leaving the economic operating system unengaged, consequently, even if they are reduced or resolved it is likely they will inevitably return. It follows that if the CFI is pushing economies toward zero growth, debt will persistently rise in order to help compensate for diminishing useful financial resources. Cutting deficits by lowering costs is not very different from borrowing money to pay off a loan. It is likely the deficit and debt problem can ultimately only be resolved by countering implosion. To solve the problem and restore financial resources being lost to implosion the financial sector would have to introduce a new service referred to as resource creation.²⁷ In essence this means payments to total cost made by both businesses and the public sector today are in fact a systemic waste of financial resources created by the natural design of the circular flow of income since implosion redirects the real value of money businesses spend from capital²⁸ and labour to inertia with allocations to factors of production as a seemingly impenetrable psychological smoke screen. It is important for businesses as well as economists to understand this problem. Restoring the value businesses lose as result of implosion technically entails businesses in aggregate are recovering from the economy, financial resources equivalent to total cost per annum at constant price. This recovery would entail the capacity to raise finances within an economy equivalent to financing the doubling of GDP in one year.²⁹ The current setting of the contemporary economy is one where businesses operate in an environment or operating system where;

Profit = Total Revenue (TR) – Total Cost (TC)³⁰

²⁴ This is referred to as an expenditure fallacy see Punabantu, August 2010, pp4-6 for more information.

²⁵ See the arguments on credit creation in Punabantu (July 2010)

 $^{^{26}}$ Treasury Direct, August 2010, "The debt to the penny: who holds it"

²⁷ Punabantu, Siize. (2010:266)

²⁸ Capital refers to both capital and raw material as these are non-human factors.

²⁹ Ibid.,p.42.

³⁰ Ibid.,p.220.

Although the cost equation applies to businesses and is microeconomic it can be demonstrated that the expenditure fallacy functions in contemporary economics at the macroeconomic level by means of the following, where: Total revenue (TR) is the % GDP in year 2, Total Cost (TC) is the % GDP in year 1, the percentage change in GDP, if an increase is designated as Profit. The two equations mirror each other as shown here:

Microeconomic Profit = Total Revenue (TR) - Total Cost (TC)

Macroeconomic % Change in GDP = % GDP in year 2 - % GDP in year 1^{31}

The expenditure fallacy for the individual firm is observed in the resources TC subtracts from TR. It is also observed in the resources GDP in year 1 extracts from GDP in year 2. In any given year, if an economy records a growth of 5% for instance it must first have lost 100% of useful financial resources to implosion or the expenditure fallacy. The expenditure fallacy for a 5% increase in GDP can be expressed as follows:

% Change in GDP (5%)= % GDP in year 2 (105%) – % GDP in year 1 (100%)

5% = 105% -100%

In other words the economy at the macroeconomic level functions the same way a firm does at the microeconomic level. At the microeconomic level the expenditure fallacy and impact of implosion is observed as [% GDP in year 2 – % GDP in year 1]. Financial illiteracy concerning the role and impact of the economic operating system on wealth may make losses caused by implosion invisible. One does not even require the use of the income or expenditure approach in calculating GDP to see the dangerous 100% withdrawal of useful financial resources from businesses demonstrated as taking place in the contemporary economy. This financial setting is brought about by the history of businesses having to escape implosion to break even.³² It requires businesses to rely on the price mark up difference between TR and TC to survive the economy which to this day moves to suffocate and shut them down through implosion.

The current calibration of the circular flow of income may need to change from:

Profit = TR - TC

to:

Income³³ (I)=TR=TC {at constant price}

³¹ Punabantu, Siize. (2010:187)

³² See Punabantu, Siize. July 2010.

³³ Income replaces the term 'profit' since goods and services are sold at cost price, hence, technically, though greater than profit in terms of financial returns, this is not profit. Despite there being no 'profits' businesses

This change may seem simple, but it's very important; it allows accountants to manage the balance sheet such that it restores finances equivalent to total cost being mistakenly lost to implosion (as a result of the expenditure fallacy) to a business' accounts and do so at constant price. This allows technical wealth to ring fence, restore and protect aesthetic wealth. When businesses are able to make this correction through the economic operating system (EOS) the financial resources being lost to implosion at the aggregate level are recovered. Instead of there being a loss as observed in:

% Change in GDP = % GDP in year 2 - % GDP in year 1

There is instead a gain in real income;

% Change in GDP = % GDP in year 2 = % GDP in year 1 {at constant price}

Therefore:

% Change or Increase in GDP = 100% {at constant price}

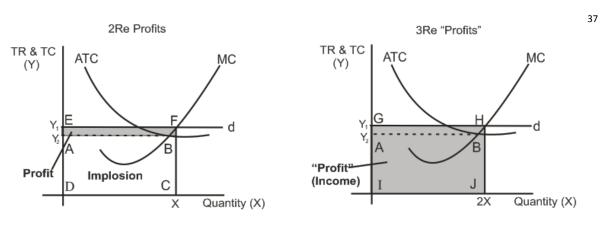
As shown it becomes possible to recapture 100% of the financial resources being lost to implosion as real income (at constant price). This will be further demonstrated later in this paper using the new equation of exchange that for the first time incorporates the economic operating system (EOS) in the economy and financial system. Firstly, in this new setting even though businesses can still mark up products they no longer need profit to survive; they can instead achieve an income (I) which in financial accounting terms can be far greater than profit even though they may charge cost price for products; this places them, their assets, shareholders and employees in an improved financial position. Secondly, it neutralizes the wobble effect caused by cost plus pricing; this restores financial system stability by eliminating creeping inflation and price inflation caused by marking up as business no longer have to do this to survive. The economy in this renewed position is no longer working against businesses but for them. As a result the economy can now push growth to unprecedented levels toward covering the entire population (full employment) with a reduced chance of overheating. Businesses are able to sell a product for exactly what it cost to produce it or less and yet still earn a greater real income than they did when they charged more for a product than its cost price; this entails there is room for a huge jump in affordability able to push demand for goods and services to a higher level whilst protecting the earnings of businesses. Long term price and financial system stability is thus restored. Thirdly, by changing this setting business are able to recover the useful financial resources they are needlessly losing to inertia in the economy through implosion which in aggregate are equivalent to recovering finances equal to the country's annual GDP. Fourthly, by government being able to predetermine and regulate the rate at which implosion is curtailed GDP levels can be managed on an annual or quarterly basis more consistently.

are able to earn much greater income than when they charged more for a product than its production price; they no longer rely on the profit margin to survive.

Instead of trying to predict an economy will grow by 6% (as is the case in the way economies are managed today) in any given year or period a government can instead *set* the operating system to grow by a given percentage of GDP. If a government through the Central Bank, Federal Reserve or relevant departments sets the economic operating system to grow by 20% it is effectively releasing financing equivalent to 20% of GDP at constant price into the economy thereby virtually guaranteeing this growth will take place, there is little guess work in this new approach. This may be difficult to believe, therefore, let us at this point introduce cost curves to back the validity of this EOS approach to managing national economies.

In the diagram below "2Re"³⁴ is used to refer to contemporary economies while "3Re"³⁵ is used to refer to economies in which the economic operating system (EOS) is advanced to correct systemic dystopia and hence financial losses from implosion are recaptured and restored to the balance sheet of companies.

Diagram 1: 2Re and 3Re Profit³⁶



Source Punabantu (2010:238)

In Punabantu (2010:238) the author explains the two diagrams above show more clearly the profit position of the contemporary economy (2Re Profit) and the "profit" position of an economy with a corrected economic operating system (3Re "Profit"). The profit area businesses currently experience is EFAB as a result of the balance sheet losing finances to implosion hidden by the expenditure fallacy shown at ABCD. Annual increases of GDP in contemporary economics depend on the paltry gains in EFAB. Despite charging more for products than they are worth the contemporary economic system only provides business with profits the size of the area EFAB. Y₂ represents the break even point for a business; at this price the business would be making the zero profits businesses cost-plus price to escape. Diagram 3Re "profit" shows the same business operating in a corrected and

³⁴ Punabantu, Siize. (2010:27)

³⁵ Ibid

³⁶ Ibid.,p.228. These diagrams are directly sourced from the book *The Greater Poverty & Wealth of Nations.(GPWN)*.

³⁷ Ibid.

advanced economic operating system (EOS). Though it charges the same price (Y_2) for its products its profit at the same price as the 2Re business is represented by the area ABIJ consisting of financial resources recovered from implosion at constant price. However, even if the 3Re company decides to charge cost price for the products it manufactures or supplies it will make "profits" shown by ABIJ. Though "profit" in this condition is used to depict these gains and greater than the premium in a contemporary economy these technically cannot be called profits since there may be no cost pricing or mark up taking place; products can be sold at their cost price and despite there being no profits business are able to earn greater income than they did in the previous system. Though a business in 3Re can charge Y₁ it may find it is unnecessary to do so as it already has significant earnings at a price of Y₂. It should also be noted that (taking into account the absorption capacity) freeing up resources lost to implosion facilitates an increase in output from X to 2X which in aggregate terms would, ceteris paribus, be a potential consequence of the capacity to finance the doubling of GDP in one year at constant price.³⁸ The economic operating system balances out demand and supply thus naturally supporting economic growth at constant price in ideal market conditions. On the other hand the wobble effect in the contemporary economy and implosion destroy this natural socio-economic and financial stability.

When it comes to financial resources for managing the economy a Central Bank or Federal Reserve Bank anywhere in the world, like the rest of institutions in the economy, is constrained in capacity to stabilise an economy by having to work within the limitations of the resources EFAB. It is folly to presume that Monetary Policy, interest rate cuts and so on financed by limited financial resources in EFAB can fend off the financial instability created by the ongoing and persistent losses observed in ABCD. This is simply not feasible or rational. It demonstrates that Central Banks may need to upgrade the systems and technology they use to manage the modern economy to the economic operating system otherwise the economy will tend to slip out of control; repeatedly. There is talk even now of the US facing a double dip recession; diagram 1 can clearly demonstrate why this is the case. Economies are persistently pushed towards inertia by a relentless economy using up more financial resources than businesses are able to raise to defend themselves. Monetary Policy alone functioning outside the operating system, as a tool of contemporary economics, simply does not have the muscle to comprehensively deal with financial system stability while the economy is draining financial resources of the magnitude observed in ABCD; to be able to do this an effort has to be made to upgrade to a more advanced economic operating system as will be demonstrated later using the equation of exchange. It shouldn't be ruled out that businesses, despite their industriousness and regardless of size, are forced to scrimp, scrape and scrounge a living on the area EFAB. The public sector must rely on the taxes it gains from EFAB as opposed to what the revenue authority would be able to raise for government revenue from allowing businesses to recover ABCD. Hence, managing the economy through an economic operating system can entail a huge increase in financial resources raised by governments without necessarily passing the burden entirely onto businesses; this is achieved by reserving a certain proportion of the financial resources created by the operating system for revenue collection. By doing this a government can in

³⁸ Punabantu, op. cit., p. 27.

fact collect taxes without businesses having to feel the tax burden; the economy can function as though there are no taxes whilst there are increases in revenue collection thus enhancing the relationship between tax payers and government.

Losses to implosion are a travesty the contemporary economy commits against businesses and the public sector. Despite this being the case there is hope for many countries struggling with how to deal with poverty, unemployment and inadequate resources. It is possible that for 300 years since the era of the industrial revolution, when economics as a science was coming into its own, economies have been haemorrhaging vital financial resources essential to the sustenance of human life and well-being of businesses to the tune of the area ABCD while, like a disinherited and disenfranchised people, humanity and businesses like squatters are compromised into scraping a living on EFAB. Consequently, growth and development in the contemporary economy is excruciatingly slow. There is hope in that countries which desire to accelerate the pace at which they are able to provide solutions to unemployment, strife, industrial action, budget deficits, scarcity and various other economic problems can fast track development by addressing them at the level of the economic operating system.

The fact that the problems in contemporary economics continue to this day is cause for concern, especially when there are still countless needy and suffering people and businesses in the world requiring the support of sound economics and finance. Of particular note is the rift between employers, be they private or public and labour organisations caused by the profuse loss of useful financial resources to implosion. It brings to mind the millions of workers who simply want a better wage from their employer and the millions of employers who want to give employees better conditions but find they simply do not have the financial resources to do this. Implosion in the contemporary economy is as much a concern for the business community as it is for labour organisations. To find that these problems may be the case the reason being the contemporary economy is of a flawed design is a telling situation. If this is the case, A.J.P Taylor's belief that "Human blunders usually do more to shape history than human wickedness" may indeed ring true. Nevertheless, regarding the tricky trickster-like or "Loki-an" problem concerning how difficult the expenditure fallacy is to discern, can contemporary economics really be to blame for this quagmire? No it shouldn't be; the expenditure fallacy is a consequence of history. If the paltry area EFAB over 300 years has built the sky scrapers seen in the developed world today and only created resources insufficient for aggregate human needs, what difference can restoring GHIJ to firms make and how much more quickly can they achieve and outclass development in the modern world? It hints toward the possibility that what developed countries have achieved in 300 years on a faulty contemporary economic model could be achieved, ceteris paribus, in just one generation with a corrected fully functioning economic operating system. If this is true then this is good news for developing countries as the prospects of improving conditions for billions of people may be able to take place sooner rather than later. It is good news for developed countries since though considered wealthy their populations can in fact enjoy a much higher standard of living than that observed today and ultimately, using the current system, they face many of the same scarcity based challenges poorer economies face. Humankind would be better able to address the burden of having to endure the psychological, emotional and physical burden of scarcity in a shortened period of time. For the countless number of people unemployed, having to go on strike for better conditions, enduring losses caused by industrial action, in businesses going under, living on the streets, unable to feed their children, surviving in shanty towns, starving, unable to afford an education, hanging onto life after natural disasters, eking out a living and the millions of businesses battling to stay afloat, making the financial resources in ABIJ available could be a transformational process. Comparing the areas EFAB to GHIJ or ABIJ is sufficient to depict the impact of financial losses from implosion and the expenditure fallacy the contemporary economy has on businesses today; nevertheless, it also highlights the potential advantages correcting this grand falsehood or flaw through the EOS would create for businesses and the welfare of humanity.

Businesses Vs the Economy: Unravelling the Conflict

Any director, chief executive officer or leader that has had to steer a business or economy through a rough period knows the difficulty and frustrations keeping the ship above water can cause. Thus far directors and chief executive officers have held the belief the economy they steer their firms through is their ally. As a result their means of survival have been internal with tools such as cost plus pricing, credit creation and cutting costs as the main financial mechanisms for keeping a company viable. However, these measures are not sufficient to protect factors of production from becoming ineffective or redundant despite retaining a high utility value especially in a down turn. Directors and CEOs have now to look at the main external threat to the well-being of the company and its employees and this is the lack of knowledge concerning the design and actual workings of the contemporary economy itself that place it at odds with productivity in the private and public sector. With meagre resources such as those depicted as EFAB shown in the cost curves in diagram 1, they must now look toward how the economic operating system can be advanced to bring the financial resources in ABIJ into the firm's balance sheet. The loss of this corporate wealth from the firm or state and its factors of production is a leading cause of industrial action, budget deficits, unemployment, underemployment, bankruptcy, foreclosure and a disproportionate number of businesses failing in an economy. Directors, CEOs and leaders who are entrusted with the responsibility of protecting businesses, generating jobs and managing the economy have a duty to address the pointless loss to of these financial resources from businesses and the economy in general that are caused by inadequate levels of understanding in contemporary economics about implosion in the circular flow of income.

There is a need to see clearly what the cost of leaving the losses from implosion draining the contemporary economy will be. Schmitt and Baker (2010:4) of the Centre for Economic & Policy Research estimate of the contemporary economy that "total cost in lost earnings [for the United States] over the five years 2008-2012 is enormous by any measure. At just over \$1 trillion, the cumulative losses are over \$150 billion higher than CBO's estimates of the ten-year direct costs of the House of Representatives' recent health care reform bill." Aapproximately 25 million people in 30 of the world's wealthiest countries will have lost

their jobs.³⁹ According to Baker (2010) CBO estimates "the bailouts of Fannie Mae, Freddie Mac, AIG, and other bankrupt companies.... bailouts added \$243 billion (1.6 percent of GDP) to the deficit in 2009. Finally, the stimulus package approved by Congress last February added \$200 billion to the deficit in fiscal year 2009 and is projected to add \$404 billion in 2010."

There is a need for leaders in diverse industries to become literate on EOS and versed with the impact of implosionary losses in financial resources on their employees and the devastation it wreaks on households. In 2009 3.8 million Americans were out of work. The US unemployment rate in April 2010 stood at 9.9% while the broader U-6 unemployment rate stood at 17.1%. For each job opening there is an average of six unemployed. In July 2009 youth unemployment reached an all time high since 1948 reaching 18.5%. Though Detroit officially places it unemployment rate at 27%, the Detroit News expects that approximately half of the cities working age population may be out of employment between 2007 and the close of 2010.

Countries in Africa, as do all economies in the world today, follow the same flawed contemporary economic model and are not spared the havoc it can cause. The BBC (march 2009) records that "The financial crisis and global recession will see African economies lose up to \$49bn by the end of this year, research by ActionAid suggests. About \$27bn of this was a fall in aid, export earnings and income from richer recession-hit nations said the charity. The lost income is equivalent to a 10% pay cut for the continent." Industrial unrest, poverty and unemployment caused by implosion have impacted the African continent significantly and there must come a time when the flaws in contemporary economics that may be a cause of this unrest are identified.

The developed world and its businesses face similar challenges. Wray Richard (2009) writes "The depth of the global recession was glimpsed yesterday when almost 80,000 jobs were lost or put under threat in the UK, Europe and US, making it one of the bleakest days in recent memory. Household names, including electronics retailer Philips, construction equipment maker Caterpillar, and drug group Pfizer announced thousands of job losses, with many of them expected to be lost in the UK. Steel company Corus, for instance, is axing 2,500 British workers as it dumps 3,500 worldwide."

In the United Kingdom the carnage persists with industrial unrest affecting industries. The Yorkshire Evening Post reports (2010) "Telecoms giant BT will face the threat of industrial action today after it publishes its annual report, which is expected to show increased bonuses for top staff. The Communication Workers Union will discuss balloting its 60,000

³⁹ The Guardian, September 2010, "Unemployment hits highest since 1995"

⁴⁰Msnbc, December 2010, "Unemployment sets a grim record in 2009"

⁴¹ Wall Street Journal, May 2010, "Broader U-6 Unemployment Rate Increases to 17.1% in April"

⁴² Msnbc, December 2010, "Unemployment sets a grim record in 2009"

⁴³ United States Dept. of Labour, 2010, "Employment and Unemployment Among Youth Summary"

⁴⁴ Detroit News, 2009, "Nearly half of Detroit's workers are unemployed"

members at BT after rejecting a 2% pay offer. The group recently announced £1 billion in profits for the year to the end of March, which came as a marked improvement on the £134 million loss a year earlier."

Leaders and captains of industry may need to become conversant with the cost of implosion, the wobble effect and other life threatening problems holding businesses and entire nations at ransom. There is a need to challenge the status quo in contemporary economics and make changes that will free productivity from the yoke of implosion. Through history businesses, without being aware of it, have had to fend off the economy. Their weapons of choice have been cost plus pricing, efficiency at the cost of rendering useful factors of production redundant, credit creation and so on. What makes this conflict clandestine is the fact leaders, directors and CEOs and the countless staff working in the private and public sectors believe the economy is their ally and are uninformed about the role of the economic operating system. There must come a time when businesses wake up and smell the coffee. The contemporary economy is not their "friend"; it commits a kind of mindless "economic infanticide" in the sense that it begins to suffocate and strangulate any business given birth to in the economy as a result of inertia urging businesses toward zero profits. 46 The area of implosion ABCD in diagram 1 is a graphic illustration of what useful financial resources businesses are losing. Consequently, globally, hundreds of thousands of business "die" prematurely, that is, go bankrupt or shut down every year putting business owners and employees out in the cold as the economy they think is helping them drives a knife deeper into their backs (see knife edge in diagram 2: d1 to d3). Small businesses in the US have been hit hard by the contemporary economic model. Rubin Courtney (Aug 10, 2010) reveals "If the numbers are any indication, small businesses have reason to be gloomy: They've lost an estimated \$2 trillion in profits since the recession began in December 2007. That's an average loss of \$253,000 for each of the 8 million U.S. businesses with sales between \$100,000 and \$10 million."47

The conflict between business and the economy is not a matter to be taken lightly. Bearing the brunt of its brutal drain of useful financial resources are the households engaged with businesses and part of the factors of production. Households refers not only to labour, but includes senior management, shareholders; all the human factors dependent on firms for their livelihoods and the well-being of their dependents. Literacy about the economic operating system has to be raised; a line has to be drawn between business and contemporary economics and leaders in diverse industries have a duty to fully address the faulty economy head on in order to demand it be shaped to enhance what they do as opposed to financial implosion threatening their very existence by withdrawing the very financial resources required for survival.

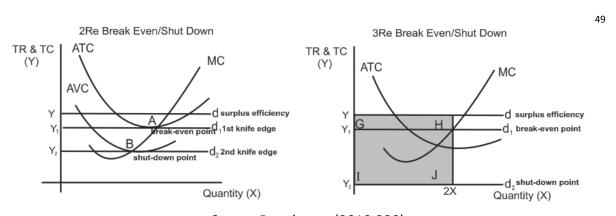
Punabantu (2010:239) shows that correcting the operating system lowers the shut down point of businesses giving them a better chance for survival. It also shows that at Y_1 in

⁴⁶ Punabantu, Siize. (2010: 94) also see Punabantu, Siize, July 2010, *Financing the doubling of GDP in One Year at Constant Price*, p. 5.

⁴⁷ Rubin, Courtney, Aug 10, 2010, "Study: Recession Cost Small Businesses \$2 Trillion"

diagram 2 where a business in a contemporary economy is making zero profits as a result of costs catching up with returns the 3Re economy is making "profits" of GHIJ. In a contemporary economy when average variable costs fall below average revenue the business has reached its shut down point whereas the same business in a corrected EOS model would still be a viable enterprise; showing businesses can be much more resilient in a downturn than what is observed today. This potency will translate directly to the strength of stock markets making them safer investments, more resilient, financially stable and sound by having, as depicted in diagram 2, a better shut down point creating better "profits" or earnings than have been possible on stock markets in the past as shown in diagram 1 ABIJ is gained as opposed to EFAB. Shareholders and stock market portfolios would expect to have greater returns and higher levels of constructive certainty than they have had in the past thus providing better investments for individual and institutional investors buying shares; the levels of risk on stock markets would fall significantly. These benefits can apply from the smallest business to the largest mining conglomerates; the advantages shown in the diagrams are accessible regardless of the size of a business. Understanding the role of the economic operating system will help businesses define the kind of economy they want to operate in rather than remain in the suffocating hold of the contemporary economic system which, as shown below, causes businesses to shut down much sooner than they may have to.

Diagram 2: 2Re and 3Re Break Even & Shut Down Points⁴⁸



Source Punabantu (2010:229)

Punabantu (2010:229) explains that "In a 3Re economy businesses are expected to sell their goods and services at what it cost to produce them, that is, at Y_1 ... as this neutralises the wobble effect, however, the dynamic economy is self correcting and price mark-ups or markdowns are naturally stabilised; mark-ups may occur at intervals depending on prevailing economic conditions and the nature of the goods and services being sold, though it is plausible to contemplate prices remaining stable or declining rather than increasing the cost of living in a dynamic economic operating system......At d both the 2Re and the 3Re

⁴⁸ Punabantu, Siize.(2010:228); note these diagrams are directly sourced from The Greater Poverty & Wealth of Nations.

⁴⁹ Ibid.

businesses are making surplus profits. The difference between the two is that the business operating in 2Re conditions must achieve surplus profits if they are to remain a viable enterprise. Firms functioning in 3Re conditions do not suffer from implosion and therefore do not really need surplus profits from cost plus pricing if this is not in their interest. They can drop their prices from the artificial position of Y to the natural position of Y_1 and in a 3Re economy this is regarded as normal "profit" as the "profit" earned is where products are being sold for exactly what they cost to be produced. Despite selling the product at the same price it cost to produce it the business earns a "profit" of GHIJ, [as shown earlier it is] likely to be more than it earned using the mark up system, that is, cost plus pricing. The wobble effect is thus neutralised and technically this should also stop creeping or long term inflation [from eroding the value of wealth over time in the economy]. If the 2Re firm did this it would lose all its profits to implosion. The demand shift $d-d_1$ [e.g. during a recession] therefore represents the 1st knife edge of a business functioning in 2Re. The business has a knife to its back and is on the first edge of demise since at d_1 it is at its break-even point. The 3Re firm on the other hand still has a surplus. Should demand fall to d_2 then a 2Re firm will be at its 2^{nd} Knife edge. This edge is much more dangerous. The linear economy has thrust its point into the firm's back and is drawing blood. The edge it is standing on is the shut-down point. Should demand fall below this the firm will be unable to cover its operational costs and will have to shut down [the business cannot cover average variable costs]. The 2nd Knife edge in a 2Re economy causes the premature closure or 'death' of enterprise. This death is premature since the firm at d_2 still has a substantial level of demand. However, the way the [contemporary] economy's system is structured forces it to shut down. Businesses in a 2Re economy are brought to the brink by implosion, which severely erodes their capacity to survive even short run loss situations such as this. The shut down point for the 3Re business is at d_2 in the second graph where it should be for any normal business. This is where demand has fallen to zero which is absolute proof that there is no point in productivity [since no demand for the product exists in the market]. At equal levels of demand experienced between 2Re and 3Re the 3Re economy [is more robust and] gives businesses facing a downturn much more time to re-organise their product and resources in order to recapture sales. In a 2Re economy businesses face very difficult circumstances due to implosion and shut down more quickly as they do not have sufficient resources or time to sort out the problems that they face. Creditors easily write them off as unviable."50 In a 3Re economy, as depicted in diagram 2 as long as demand still exists, a business remains viable. Its shut down point is at d₂ where there is no demand whatsoever in the economy for the product. This super resiliency is especially important for start ups, new and small businesses as it gives them an above average chance of survival. Businesses in the 3Re model are in general not under price pressures thus reducing inflationary pressures in an economy and generating a stable price plane.51

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⁵⁰ Punabantu, Siize. (2010:229)

⁵¹ The Economic Operating System is able to create a constant price plane which is a consistent long term general price level. Technically this entails a superior system for managing inflation. For instance the value of wealth over long periods eg 100 years should be able to rise or remain the same unlike the conditions seen in a contemporary economy where the same value of money that buys a car years later can only purchase a pair of sneakers: see Punabantu, Siize. (2010:194- 201)

What does the Public Sector need to do to secure economies?

The first step a government would need to make to safe guard businesses and households from the contemporary economic model is to implement the economic operating system (EOS). 52 In its natural state this is the circular flow of income (CFI). The CFI must be advanced from a natural payment system to become a regulated financial instrument under government supervision, just as surely as a Central Bank or Federal Reserve manages government bonds, treasury bills, money supply and other government financial instruments; a consultancy would need to be undertaken to facilitate this as a form of organisational change. As long as the CFI remains a natural payment system (where the economic operating system remains invisible) the negative impact implosion has on the productivity of firms cannot be controlled; the difficulty both Monetary and Keynesian approaches have had in their attempts to do this is more than sufficient proof of this. The national economy has to be upgraded from being a linear loss enforcing system to a dynamic economic operating system (EOS) whose functions, rules and outcomes are supervised through an emoney based financial system for facilitating transactions able to redress the losses and impact of financial implosion. In this position a government will then have a new financial instrument or new tools to introduce several critical changes:

- 1. Neutralise the loss of financial resources to implosion;
- 2. Restore the loss of financial resources lost to implosion to the balance sheet of businesses, regardless of how large or small;
- 3. Restore price stability: the above naturally eliminates the need for businesses to rely on cost plus pricing;
- 4. Secure the value of aesthetic wealth: this is achieved by eliminating the "wobble-effect" and consequently creeping inflation allowing an increase in financial system stability;
- 5. Eliminate scarcity & poverty: restoring financial resources lost to implosion eliminates economic scarcity and paves the way for businesses and productivity to create full employment and bring an end to existing poverty.
- 6. Generate greater GDP forecasts guaranteed to be achieved through calibration of the economic operating system rather than use speculation.

The process involves a step by step incorporation of the economic operating system into the management of an economy. Monetary Policy is uncompromising when it comes to inflation, such that it seems a complete contradiction when businesses exist in an economy in which they cannot survive unless the very first and most important action they perform is to inflate price by charging more for a product than what it costs effectively creating their own increase in money supply, above and beyond notions of demand and supply determining prices in the market. Once again this is an *oxymoron*; yet this condition prevails despite how contemporary economics views Monetary Policy. It has been demonstrated in

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⁵² The Economic Operating System (EOS) is a financial payment system concept and system for managing economies developed from Operating Level Economics (OLE) introduced in the Greater Poverty & Wealth of Nations (GPWN).

this paper in diagram 1 & 2 that EOS enables Monetary Policy, for the first time, to realise its objectives through how the economy operates; business using the EOS can thrive and have superior incomes charging cost price for products than they have received using destabilising mark ups; there is no need for inflating through price to take place. The indication given in contemporary economics is that a business making profits such as those seen at EFAB in diagram 1 is acceptable. However, when this gain is analysed in context with the financial losses the economy is pointlessly exacting from the balance sheet of business the true volatility of this precarious condition becomes visible. Without engaging the economic operating system business may no longer expect that what they observe taking place in the economy is what is actually happening; this is clearly demonstrated through the expenditure fallacy. To safeguard the future of enterprise directors, CEOs and labour organisations will have to assume a greater level of sophistication and see through the workings of the contemporary economy that are inimical to factor relationships engaged in the process of industrial organisation as they affect the very existence of businesses and livelihood of households. The area EFAB is battling against a stronger and more aggressive enemy in the economy itself sucking away ABCD in order to enforce inertia. For businesses to have to fend off the economy in a life and death struggle that becomes evident in business failure and industrial unrest is unnecessary. It should no longer be acceptable. Institutions around the world need to work with businesses and intervene to prevent this as a means to safeguarding economies. To make matters complicated firms believe the contemporary economy is an ally or darling; an "enabling environment" working to make them perform better; diagrams 1 & 2 and losses in ABCD reveal the economy is in fact an invisible nemesis relentless in destroying businesses and workers; that any businesses survive in these conditions is a testimony to the skill of directors, CEOs and employees, as well as human resilience and ingenuity. The fact remains that the financial resources business fight for in the area EFAB are capable of only supporting a few resilient enterprises and households; unfortunately the reality is many viable businesses will not be a success, many useful goods and services will never see the light of day and after a relentless bludgeoning from the contemporary economy will go bankrupt or fold as a result of hidden financial losses from implosion. Even very successful businesses making profits in one year can, in the contemporary economy, find themselves facing deficits the next year. It is no surprise that industries in sectors with very high overheads such as those engaged in natural resources and mining metals are often affected by high factor costs. Ashiwal (Feb 2010) explains that Corus a British Division of Tata Steel "struggled to find new external demand, and has been running the unit largely on internal orders. 'Quite frankly we can't go on' said Mr Kirby Adams, Chief Executive of Corus and Tata Steel Europe, during a press conference on Tuesday. 'This has cost Tata Steel dearly and we have lost over \$220 million in the past nine months.' Tata Steel could face industrial action in the latest tragic twist to the ongoing saga at its British division, Corus. Corus confirmed that it would be partially mothballing its Teesside Cast Products site near the North Yorkshire town of Redcar within days, at a cost of 1,600 of the 2,300 jobs on site." Even when solutions to problems are found businesses in the contemporary economy may find themselves making profits one year and losses the next or losses in one year and profits the next as Shanker (August 2010) reveals "Net

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⁵³ Ashiwal, Shashi, Feb 2010, "Tata Steel may face industrial action at Corus"

income, including that of U.K. unit Corus, was 18.3 billion rupees (\$391 million) in the three months ended June 30, compared with a 22.1 billion rupee loss a year earlier."⁵⁴

Afrida (April 2010) reports "The average price of steel products in the international market may increase by about 50 percent to US\$900 per ton in June from \$600 in January due to higher production costs...Irvan Kamil, the marketing director of state steel company PT Krakatau Steel said that steel producers had no choice but to pass the higher production costs on to consumers to cope with the sharp increase in the prices of raw materials...According to him, the price of raw materials had increased by about 90 percent during the past several months although demand is still relatively stable...The price of steel products rose to \$700 per ton in March from about \$600 in January. It is expected to further increase to \$900 per ton in June," he told reporters."

Rising costs of raw materials have a knock on effect on the supply chain. As raw materials become more expensive to mine the increased costs are passed on to consumers. Afrida (April 2010) further reveals "Lakshmi Mittal, chief executive officer of the world's largest steel maker ArcelorMittal, earlier estimated that the benchmark hot-rolled coil price would increase by \$150 per ton in the second quarter from about \$700 per ton 'The cost of producing steel is going up and will be passed on to customers," Mittal told Bloomberg on April 1." The fact that mining and other natural resource industries are themselves suffocating in the confinement of the area EFAB in diagram 1 and losing the financial resources ABCD to the economy for no justifiable reason adds to the unstable contemporary economic environment business need to begin to educate themselves on in order to demand these schisms of the economic operating system be redressed. The fact that developing countries tend to rely significantly on extractive and mining industries entails there can be dramatic improvements in value added to the economy if implosion is corrected. The losses businesses in general are forced to endure have a long term impact on the global economy.

Reconciling Monetary Policy & EOS Implementation

Restoring the loss from implosion to the balance sheet of businesses can have extensive ramifications. It entails businesses will be able to take on more factors of production than they have been able to in the past. Markets will gain sufficient financial resources to meet this supply creating the potential for any economy in the world, even the most impoverished, to be able to quickly move toward eradicating poverty, creating wealth and functioning at full employment. They also have a greater capacity to set reasonable prices for their products establishing a price plane⁵⁶ which is the ability to use cost price as a genuine guide to determining value hence establishing a consistent general price level over the long term since operating at cost price does not make them fail to break even. In essence it creates the possibility for no one in any economy whether developing or

⁵⁴Shanker, Abhishek, August 2010, "Tata Steel Returns to Profit on Automotive, Engineering Demand"

⁵⁵ Afrida, Nani, April 2010, "Steel price may rise by 50% due to high production costs"

⁵⁶ Afrida, op.cit.

developed to be unemployed or destitute as levels of productivity, the allocation of financial resources through enterprise, employment and wealth are simply too great to leave room for scarcity or poverty to remain the norm as has been demonstrated in the difference between the revenue areas EFAB and ABIJ; the exact opposite prevails in the modern economy which is fraught with inconsistencies and inadequacy.

In order for financing the doubling of GDP at constant price⁵⁷ and the advantages in diagrams 1 & 2 to have credibility they must satisfy the price stability tenets of Monetary Policy whilst accessing the growth interventionist objectives of Keynesian approaches. Therefore, at this juncture this paper will attempt to prove they do this by analysing the structure of the economic operating system (EOS) from the point of view of a functioning implementable operating model for managing price stability and growth in an economy. In this light the economic operating system needs to be able to change from one that generates scarcity and consequently high levels of poverty and unemployment to one that generates real financial resources and consequently higher levels of wealth with full employment. These are better distributed by virtue of the fact businesses are able to take on significantly greater volumes of the factors of production land, capital and labour in a stable price system better able to secure productivity and assets from inflation and recession. Thus far we have used cost curves to demonstrate the impact of two economic operating systems in which humanity is able to function; one that persistently generates poverty (EFAB) and the other new condition that persistently generates wealth (ABIJ). In the new condition banks are better able to function in a more stable financial system where there is long term price stability; and businesses operate in a better financial position that lowers credit risk; they and households are now able to take on and repay more loans through credit creation than they have been able to in the past. In addition banks supply a new financial service; that is, resource creation ⁵⁸ based products (alongside credit creation) with the capacity to generate new revenue streams for the banking sector possibly equal or greater in value to that gained from credit creation based products. This secures the future of the banking sector and prevents the recurrence of bank failure. The shut down points illustrated in diagram 2 demonstrate businesses functioning in manner that is far more resilient than that which is offered by the economic system used today.

Businesses can be further reassured that by demanding a new economic operating system they are vying for a much safer and more secure economy. The cost curves offer evidence of the benefits of EOS. However, for government departments to consider the real functionality of EOS they must be able to see the actual process, machine or basic moving parts that make EOS possible. The operating system must have working parts with mathematical proportions planners in Central Banks or the Federal Reserve can observe to determine the workability of implementing an EOS approach in the management of their economies; in addition to this, software development would require knowledge of how the financial or economic operating system can be an emoney or electronically managed system. To satisfy some of these requirements this paper will now introduce the new

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⁵⁷ Punabantu, Siize. (July 2010)

⁵⁸ Ibid.,p.267.

Equation of Exchange.⁵⁹ And will demonstrate that an upgrade to EOS can improve financial system stability through a correction of systemic dystopia by means of this new method of operation.

The Fisher Equation of Exchange is as follows:

MV=PT⁶⁰

This is an identity, where basically:

M- money supply

V-velocity of money

T-total number of transactions made over a period of time

P- value of money

However, it does not include the economic operating system or financial instrument government departments require to gain the capacity to safely regulate growth in an economy. Therefore "The new identity and complete Equation of Exchange, which includes the economic operating system in which money functions is as follows:⁶¹

$$KV\left(\frac{MS}{E}\right) = PYR^{62}$$

Where

R – operating system

P – the general price level

Y- output of goods & services

S – emoney multiplier

E – emoney constrictor

K – virtual velocity

S,E and K are working parts of the operating system dependent on R

In a balanced economic operating system $(R=E=K=S)^{63}$

[this change or upgrade entails a *new* CFI is operating in the economy]. The annual rate at which output grows (GDP) is determined by the operating system and the technology

⁵⁹ The New Punabantu Equation of Exchange; See Punabantu, Siize. (2010:248)

⁶⁰ Stanlake, G. F, (1983:174)

⁶¹ Note: The new Punabantu Equation of Exchanged is sourced directly from the Greater Poverty & Wealth of Nations. (GPWN)

⁶² Ibid.

⁶³ The economic operating system is an adjustable system and can be tailored in direct proportion to the resource needs of an economy's population, households and businesses.

paradigm (the organisation of human skills and capital to create a desired level of productivity.)

If the economy is linear, as it is with [all] economies [in the world] today, then the calibration of the economic operating system is **R=1** therefore growth does not benefit from the operating system's accelerant and the economy becomes inert, that is, it ceases to create wealth. In this condition the economic operating system is invisible and reverts to (MV=PT). For example:

PYR=25x24x1= U\$\$600bn, Therefore, GDP is stagnant at U\$\$600 bn for the year

An economy only begins to officially create wealth when its operating system is calibrated to function above 1 (R>1). Further Punabantu (2010:256) demonstrates that "If the operating system is used to [finance] the doubling of GDP growth over 1 year, that is, [the operating system (R)] is upgraded to R=2:

...over the same period; therefore GDP or wealth has the potential to double from US\$600bn to US\$1,200bn over the same period [by using the operating system to facilitate the introduction of additional financing of US\$600bn to support this doubling].

[Furthermore] this accelerated growth when facilitated by the EOS satisfies Monetary Policy requirements by taking place at constant price as demonstrated by the following:

$$P = \frac{KV(\frac{MS}{E})}{YR} = \frac{1,200}{24x2} = \frac{US\$25}{24x2}$$

Accelerated growth is dynamic (geometric) potentially allowing the financing for doubling to take place each consecutive year [unlike a contemporary economy which is linear and due to implosion has to recreate wealth in the economy (ABCD) each year from scratch⁶⁵ as a result of inertia caused by zero growth]. This improvement significantly shortens the [potential] pace at which development occurs."66 Calibration of the operating system can either create a wealthless, poverty or scarcity generating system (R=<1) businesses struggle to survive in (a linear economic operating system where there is zero growth is one calibrated such that R=1). Or it can be calibrated to create a prosperity and wealth system

⁶⁴ Punabantu, Siize. (2010:256)

⁶⁵ See pg 15 of this paper where this is explained; in order to create a 5% increase in GDP the economy will need to have lost 100% of useful financial resources gained from the previous year, i.e. 5%=105%-100%.

⁶⁶ The economy spins its wheels and 'burns rubber' but goes nowhere; see Punabantu, Siize. (2010:92)

(R>1). The rate of annual acceleration of an economy is only limited by its calibration, that is, the number of useful factors of production the operating system is able to accelerate by freeing from implosion, that is, R=n, where n is the number of factors freed from implosion. This acceleration must of course take place within the constraints of the technology paradigm⁶⁷ and absorption capacity⁶⁸ faced by an economy. The contemporary economy may have the technology paradigm and absorption capacity⁶⁹ to accommodate financing doubling in one year; however, it is not improbable to forecast that once this has been achieved the technology paradigm will naturally evolve toward a capacity to finance and accommodate financing the tripling of GDP. Punabantu (2010) identifies rates of acceleration of upto five economic factors (R=1-5)⁷⁰ in a Utopian Model.⁷¹ These are resource levels outside the current scope of human understanding in the sense that it may be difficult to contemplate or visualise how large and powerful an economy utilising resources annually on this scale would have to be (we might have to turn to George Lucas and James Cameron to gain a visual idea of how these super-economies might look). What is important to know for now is that these resources can be available in the indiscernible future should they ever be required; in the same way a growing child needs new clothes an economy evolving through ever advancing stages of technology needs a recalibrated or upgraded economic operating system to balance its capacity to grow and produce with its capacity to consume. The present day technology paradigm and absorption capacity, though a poverty system (R=1), has already advanced technologically to accommodate doubling, that is, R=2. If this scenario is accurate, the belief that resources are scarce is a fallacy created by the flawed or constrained economic operating system used in contemporary economics that businesses armed with knew knowledge may now need to challenge.

The challenge is for institutions to encourage Central Banks and the Federal Reserve to evolve from a natural payment system (MV=PT) to an EOS model ($^{RV}\binom{MS}{E} - ^{PVR}$) in order to begin to take advantage of new financial resources and products. The new equation of exchange is an opportunity to look under the hood of the economy. It demonstrates there are hidden working parts that can be harnessed using modern technology such as computers and controlled or supervised by relevant government departments entrusted with managing an economy. The benefits can be distributed as financial products by banks alongside credit creation using an emoney financial instrument, relevant robust software, hardware and other electronic means. Much of the infrastructure for these systems are already a reality as can be observed in the use of electronic banking as well as credit and debit cards distributed by reputable companies like Visa, American Express and so on. The dilemma is that economies have not as yet begun to harness the economic operating system. The equation shows that governments may not have to be at the mercy of the economy and scarcity. They can fully accommodate both Keynesian as well as Monetary

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⁶⁷ Ibid.,p.164.

⁶⁸ Ibid.,p.38.

⁶⁹ How successfully firms are able to translate financial resources made available through the operating system into goods, services and jobs.

⁷⁰ Ibid.,p.172.

⁷¹ Ibid.

Policy approaches using an EOS financial instrument to manage the economy and in fact may be able to pre-determine the quantity and quality of economic resources they want to prevail at any given time. They may be able to tailor growth to population size ensuring poverty and adverse scarcity are no longer a modern economic experience for humanity. Most importantly the financial resources by which this is achieved do not have to come from public reserves and private sector savings as they are pre-existent in the economy (see ABCD in diagram 1). Should this remain precise many of the constraints households and businesses face, as they are understood today, should become relics of a bygone era. The EOS enables better tools for implementing and managing Monetary Policy objectives than contemporary methods by which central banks manage money supply and price stability, it also enables the introduction of a key new financial product for banks other than credit creation; from the onset it creates the capacity for goods and services moving along the supply chain to be sold at cost price by naturally neutralising motives for cost plus pricing, something no economy in the world is capable of doing today.

Should what is proposed in this paper be accurate, as demonstrated by the new equation of exchange and cost curves introduced earlier, economic scarcity is not a real or impassable problem as observed in contemporary economics; rather it is a psychological limitation or impasse humanity needs to educate itself on to be able to cross in order to find prosperity and access the new economic resources on the other side of the equation. Having noted this it is plausible the history of economic thought and the methodologies by which profit, trade and industry evolve play a key role in the current incapacity of financial approaches to deliver new economic resources equal or greater than humankind's needs. These economic resources have always been available; they simply have never been used. Having noted this, an analysis of human society may reveal the problem with poverty and wealth may not be a simple technical issue, but also have its origins in the deep seated psychological and psychosocial experiences by which the evolving history of economic thought has shaped the relationship between humanity and economic resources that possibly came to act as a barrier unnaturally delaying appropriate advances required to nurture wealth and neutralise poverty.

Conclusion

The economy is humanity's first line of defense; it is the one significant buffer between disaster and human welfare. It determines whether there will be sufficient means to respond after earthquakes, floods, droughts, epidemics, mud slides, volcanic ash, tsunamis and other impending natural disasters. It establishes whether the period of recovery after natural and man made disasters will be shortened or prolonged indefinitely. It determines whether people will have jobs or will be unemployed. It decides whether households will have three meals a day or any food at all, whether they will have a roof over their heads or sleep in the streets, if they will wear decent clothes or rags. It determines whether a government anywhere in the world can resolve a deficit and crisis or not. When economic

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⁷² See the arguments concerning the evolution of profit in trade in the paper Punabantu (July 2010) *Financing the doubling of GDP in One your at Constant Price.*

resources become insufficient it becomes more difficult to manage the direction in which socio-economic development moves. Shen and Subler (2010) write "EU countries have adopted tough budget austerity plans and other reforms to rein in debt and deficits and avoid a repeat of the Greek public debt crisis and regain market confidence..."In the long run, however, the benefits of fiscal consolidation prevail...Tumpel-Gugerell said monetary policy contributed to sustainable growth and job creation by aiming to secure price stability in the medium term, and said inflation expectations in the euro zone were well anchored."⁷³ The contemporary economy directs the experiences within it, the BBC (2010) states "Chancellor George Osborne has outlined plans to cut £6.2bn of what he calls "wasteful spending" to start to reduce the budget deficit."⁷⁴ The economy motivates planning toward what scarcity it evokes, as Bruce Andy (2010) explains "Severe budget cuts and the possibility of slower growth ahead will force the Bank of England to wait until the second quarter of 2011 to raise interest rates, according to a Reuters poll of 61 economists."⁷⁵ It also determines whether prospects for the future are good or bad Reuters (July 2010) writes "Fiscal consolidation in Europe will drag on growth in the short-term but overall economic prospects are positive, a senior European Central Bank policymaker said on Saturday I believe that the recovery in Europe is well on track and that we have the right policies in place to ensure the return to the levels of growth we have seen prior to the crisis," ECB Executive Board member Gertrude Tumpel-Gugerell told a forum in Shanghai."⁷⁶ There is evidence the idea that an economy contains more than adequate finances with which to more than satisfy human needs is not a new concept, neither is it a concept confined strictly to economics as the following quote spoken long ago implies:

"Look at the birds of the air for they neither sow nor reap nor gather into barns; yet your heavenly Father feeds them. Are you of not more value than they?...now if God clothes the grass of the field, which today is and tomorrow is thrown into the oven, will He not much more clothe you, O you of little faith?.."

Matthew 26-34

The quotation speaks to the realities and daily conditions experienced in human psychology and socio-economic existence and ponderance over the present and the future. Wealth and poverty have since ancient times urged the human psyche to ponder whether suffering and prosperity are preordained or self determined. Will I keep my job, is my business going to prosper, is this the way things are meant to be, if we make these changes will the prospects improve, can the budget deficit be bridged if we try this, for how long will I endure, how much longer can this last, is this it? Economists such as Albert Hahn⁷⁷ spoke of a *perpetual*

⁷³ Shen Samuel, Subler Jason, 2010, "ECB sees positive growth outlook despite budget cuts"

⁷⁵ Bruce, Andy, 2010, "Bank to tread cautiously in face of budget cuts", Reuters,

 $^{^{76}}$ Reuters , July 2010, "ECB sees positive growth outlook despite budget cuts",

⁷⁷ Punabantu, op. cit.

prosperity. Contrary to the quote above; are resources really scarce and human wants infinite? Is the basic economic problem valid or misleading? Are human beings deigned to suffer or are they destined to prosper? What is the purpose and role of human existence? Questions like these have endured, are related to how human beings perceive their own existence and are as much economic questions as they are religious and philosophical ones. If something is possible but is achievable only if you believe it is possible; what is the scientific position - is it possible or isn't it? If an object is real but is existent only if you believe it exists; what is the scientific position - is it real or isn't it? In physics problems related to understanding reality are examined in the Paradox of Schrödinger's Cat. In religion faith is a cardinal aspect of reality – unless you believe you are unlikely to see, you are unlikely see unless you believe. The outcome of Schrödinger's thought experiment may be that those who open the box will see what they believe, even if their observations occur in unison and in the same space and time; some may see a dead cat whilst others may see a living one. When two people can observe the same object or action and draw different conclusions or experience different conditions, then it needs to be accepted science itself may not be exempt from the relativistic nature of reality. If there are some objects that exist only when they are observed; does this make them real in the empirical scientific sense, since they cease to have ever existed when they are no longer observed? Why does the quotation above emphasise the words - O you of little faith? Why does it not end with advice like make good investments, put in place austerity measures and budget cuts to restore wealth, listen to the news for investment tips, human wants are infinite and resources are scarce so learn to live within your means, improve the supply chain and learn to add value or in the season when the stock market comes...? Why would the importance of faith be emphasized and is the context in which it is being used understood? What does faith have to do with wealth, providence and Schrödinger's cat? Reality is conditioned by what human beings believe during a period of history, it may even affect the capacity of the sciences to deliver the results and discoveries humanity needs as they become too narrow minded or focused on the wrong avenues and methods of research to tap into the creativity necessary to birth new technologies and inventions. For how much longer can the contemporary economy keep humanity safe, nurture it, protect it from disaster and nurse it back from the brink? The manner in which human psychology evolves through the history of economic thought⁷⁸ to the present day plays a significant role in shaping the resource and wealth crises the world experiences including humanity's preparedness and ability or inability to cope and mitigate against calamities; calamities which will impact on the economy and humanity itself today and in the future. Becoming literate about the economic operating system and the role it can play in understanding and creating wealth requires an attitude or philosophical approach to appreciating how to solve difficult predicaments. Tackling scarcity and sustaining financial system stability may have some significance for unravelling many of the economic problems and predicaments affecting humanity as well as help in understanding what the scientific origin of wealth really is.

Without an optimistic philosophy to counter a pessimistic one it seems there is often no impetus for real change. A real change in what is known and understood about economics is

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⁷⁸ Punabantu, Siize. (July 2010)

required today. Labour organisations fighting for better conditions for their members will need to educate themselves on the economic operating system and become conversant with the huge potential financial resources contemporary economics and implosion are withholding from labour in order to be better able to shape the labour movement toward challenging the real nemesis of the labour movement, which is not necessarily the narrow aspect of the employer, but the inconvenience of productivity being subtracted from labour by a dysfunctional circular flow of income or system. The financial revenues that can be made available by correcting systemic dystopia and neutralising implosion entail there can be a revolutionary improvement in the number of people the economy is able to employ and the general conditions of service of workers; greater than the benefits industrial action against any employer can bring; labour organisations may therefore need to shift their focus toward the operating system and the need for it to receive an upgrade. Similarly management in businesses will need to educate themselves on the economic operating system in order to have the necessary technological advancements in finance that will accelerate levels of productivity and make the business environment conducive to the survival of enterprise. At the governmental level, the supervision of economies weighed down by the fact that they are pushed toward zero profits or inertia, makes governance a difficult task. Any kind of governance political or otherwise, anywhere in the world, that takes place on insufficient resources is unnecessarily arduous, this is the case whether a country is highly developed, an emerging economy or a developing country. It is simply unfair on governance for contemporary economics to fail to advance to a stage where countries have enough resources to solve the problem of recessions, unemployment, poverty and the diverse problems related to scarcity. The fact that the knowledge required to identify implosion is not available in contemporary economics is cause for concern as it means populations are faced with economic setbacks they do not have the knowledge to fully resolve. Advances in knowledge can lead to tremendous improvements in human welfare and there may be no better time than today to begin to broaden what is known about business, finance and economics in relation to the economic operating system.

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