Integral Venture Investing: An inclusive and sustainable model for investing in our future

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Abstract
This paper makes the case for Integral Ventures as an example for integral sustainability in Venture Capital. It is a contribution to the current financial crisis from the perspective of high-risk venture financing as a specific asset class. Part 1 sets the scene by presenting the global context in which current crises occur from the financial, social, and environmental perspectives. It introduces the concept of exponential growth to explain the mathematical complexity behind current problems and why it is difficult for most people to understand them until it could be too late to respond. Part 2 summarizes current developments toward sustainable finances, banking, reporting, and investing. It introduces Integral Investing as the application of Wilber's Integral Model in investing and makes the case for its value add. In Part 3, we show how Integral Investing is being applied in Venture Capital in an effort to help make to make this particular asset class integrally sustainable.

***KEY WORDS**: Integral Investing, Impact Investing, Sustainable and Responsible Investing, Venture Capital, Sustainability, AQAL, Ken Wilber.*

Part 1: The Global Context

The financial disaster of 2007-2008 nearly ruined our global economic system and resulted in one of the most dreadful crisis in known history with no immediate end in sight (Krugman, 2012; Naudé, 2009; Stiglitz, 2010; Taylor, 2009). By October 2008, about US $25 trillion were obliterated from the value of the stock markets (Naudé, 2009). What originally started with a liquidity crisis, was followed by a disruption of capital flows, a wave of currency crunches, the total collapse of some of the largest financial institutions including Lehman Brothers, the bailout of "too big to fail" institutions by national governments such as Fannie Mae and Freddie Mac, and severe downturns in stock markets around the world (Krugman, 2009). It also triggered the failure of significant businesses and the decline of economic activity leading to the 2008–2012 global recession and the European sovereign-debt crisis with Ireland, Spain, Portugal, Greece, and the most recent financial breakdown in Cyprus as sad examples.

The social effects of this crisis are significant at a global scale. On one hand, it lead to real estate bubbles bursts, foreclosures, evictions—mostly in the United States but also Spain, and Ireland—and prolonged unemployment in most Western nations with Europe reaching on average 12 percent unemployment rate in February 2013, its highest levels within the Euro zone ever (Eurostat Unemployment Rate, 2013). On the other hand, the inequality between the wealthy and the less fortunate increased, for example, in the United States where the share of the 1 percent richest American households grew between 1980 and 2008 from 10.0 percent to 21.0 percent making the United States one of the "most unequal countries in the world" (Maloney & Schumer, September, 2010, p. 2). The United States had "the most millionaire households (4.7 Million), followed by Japan, China, the United Kingdom, and Germany" (Becerra et al., 2010, p. 5). This development is true for Germany (Boeckler, 2009), Japan (Tachibanaki, 2009), and the

United Kingdom (Hughes & Church, 2010) to name a few. The ensuing protests including the Occupy Movement, the Spanish Indignados movement, and the Greek protests are obviously the results of these ongoing challenges. And, as if these social trials and tribulations were not enough, the alarmingly growing health problems such as coronary heart disease, cancer, diabetes, depression, and obesity (WHO, 2013) add to the problems. Seemingly paradoxical, obesity, for example, has nearly doubled and the prevalence of obesity has tripled in most industrialized countries since the 1980s (WHO Overweight and Obesity, 2013). For instance, two-thirds of US American adults and nearly one in three children are overweight or obese (US Overweight and Obesity, 2013). Obesity is already responsible for 10 to 13 percent of deaths in different parts of Europe and claims between 2 and 8 percent of European health care costs (Eurostat Overweight and Obesity, 2011). The sad part is that while most people in the developed world are literally killing themselves with excess food, more than one billion people on this planet live on the brink of starvation (Sachs, 2008) with one child dying from hunger-related causes every five seconds (Black & Morris & Bryce, 2003).

Environmentally, the crisis appears even worse if we judge from the ongoing droughts, hurricanes, floods, the rapid melting of polar ice, and the irrecoverable loss of bio-diversity (Randers, 2012). According to Randers (Randers, 2012), humanity has not only outgrown the sustainable capacity of the Earth's finite natural resources and ecosystem, but we *continue* to emit twice as much carbon dioxide (CO2) as the world's forests and oceans can absorb with disastrous consequences for the planet's ecological balance. The question is how we have arrived here and want can we do to stop it. To answer these questions, we must understand the mathematics of exponential growth (Kurzweil, 2005) that lays at the foundation of current crises (Meadows & Meadows & Randers, 2004).

The Driving Force of Destruction: Exponential Growth

According to an ancient legend, an Indian king was a renowned chess lover and often challenged his visitors to a game of chess. One day, the king challenged a traveling sage and offered any winning reward that the sage would request. The sage modestly asked only for a few grains of rice that should be counted in the following manner: Adding a single grain of rice on the first chess square and doubling it on every consequent one. The kind agreed and the game started. Having lost the game and being a man of his word, the king ordered a sac of rice to be delivered so he could pay his dues. Then he placed the rice grains according to the agreement: 1 grain on the first square, 2 on the second, 4 on the third, 8 on the fourth and so on. Since the rice payment follows exponential growth, the king quickly realized that he was unable pay his debt. On the fortieth square the king would have had to put 1,000,000,000 grains of rice, and finally on the sixty-fourth square he would have had to add more than 18,000,000,000,000,000,000 grains of rice. It equals to 210 billion tons of rice and would suffice to cover today's India with a one-meter thick layer of rice.

Unfortunately, the driving force behind today's problems outlined before is exponential growth (Meadows et al., 2004). As we have seen from the above example, exponential growth is a mathematical notion extremely difficult to grasp by most people before it is too late to respond. This was the case before the financial breakdown and is sadly the case with the current environmental destruction and the resulting social implications (Meadows et al., 2004). Unfortunately, it all continues to occur although we could still respond (Gore, 1992, 2006, 2010, 2011, Randers, 2012). It would be technically possible to reduce the carbon emissions through a relatively low-cost shift of 1 to 2 percent of the labor force and capital from dirty industry segments to clean sectors (Randers, 2012). Randers (2012) and the scientists behind him, however, do not believe that significant change will occur in time to prevent inevitable climate

change along with its "unstoppable causal feedback loop" (p. 235). In their opinion, the main challenge of humanity lays not in its incapacity to solve the problems at hand but in its political incompetence toward reaching collective agreement to do what is needed within the required time frame.

2052: What Can Be Expected Without Appropriate Action?

Without appropriate action, Randers (2012) forecasted for the coming four decades the following: (1) the world's population will peak in 2040 at around 9 Billion people with increasing polarization economically, socially, culturally, and environmentally; (2) the world GDP will level off, because of slow growth due to resource depletion and reallocation; (3) the investment share of GDP will increase as global society will be forced to deploy capital in trying to solve arising problems unfortunately *after* they occur; (4) the global energy use will peak in 2040 with China being prone to win the energy game in solar, wind, and battery technologies; (5) CO2 emissions will peak in 2030 and go back to 2012 levels by 2050; too late to prevent significant loss of bio diversity, massive degradation of environmental degradation with an increased frequency and severity of extreme weather events that will massively affect economies everywhere; (6) the global temperature will pass the dangerous threshold of +2 °C already by 2050 with dire consequences for the second half of the 21st century. Randers (2012), who was also one of the co-authors of the renowned report to the Club of Rome called *Limits to Growth* (Meadows, & Meadows, & Randers, & Behrens III, 1972) stated, furthermore, that the future after 2052 will look even worse because humanity will not have completed the transition toward sustainability in time to prevent further decline. The implications of Randers' (2012) forecasts are significant and may lead to (a) slower growth over the next forty years but not significant enough to avoid a climate crisis in the middle of the 21st century; (b) low growth in after-tax

disposable income in the rich world, and decline in the US due to a mellowing of economy, large debt, unequal distribution, and slow decision making; (c) fast growth in China because of state capitalism and its ability to take important decision fast, (d) ongoing consumption pressure that will hurt Earth's bio capacity; (d) continuing rise in climate events and other calamities; and (e) much more poverty than most people expect both in the poor and the rich worlds. Randers (2012) attributed it all to inadequate global governance, which will not be able to aggregate the necessary capital and political will to change.

How Sustainable Are Our Financial, Economic, and/or Governance Systems?

In order to know whether something is sustainable or not, we need a definition of sustainability. In 1978, that was the goal of the United Nations World Commission on Environment and Development. They published a report, the so-called Brundtland Report in honor of the former Norwegian Prime Minister Gro Harlem Brundtland, who chaired the commission at the time (World Commission on Environment and Development, 1987/2009). They defined "sustainable development as the development that meets the need of the present without compromising the ability of future generations to meet their own needs" (p. 43).

Let us see whether or not the current financial, economic, and/or governance systems are sustainable according to the above definition. World-wide, governments promote Growth Domestic Products (GDP) with the intention to enhance job creation, ensure tax revenues, and increase overall prosperity (Randers, 2012). They do that often at the expense of future generations, for example by subsidizing fossil fuels such as coal, tar sands, gas, as well as nuclear energy (Henderson, 2013). This is apparently due to "incorrect pricing" (Henderson, 2013, p. 2) and outdated accounting systems that were designed with environmental and social blinders (Krugman, 2012; Randers, 2012; Sachs, 2012). In this system, the environmental, social,

and governance (ESG) criteria are considered externalities and are not part of it, or internalized. They focus on short-term financial capital and omit both social capital and natural capital with its environmental assets like water resources, soil fertility, and climate stability. Since November 2007, the European Commission and the European Parliament together with the Club of Rome, the OECD, the WWF, and other major organizations have been trying to change these outdated measurement criteria without much success but undiminished hope thus far (Beyond GDP, 2013). The same, accounting practice is true for corporate accounting, which is not required to internalize environmental degradation, nor social, nor governance issues (Randers, 2012). Thus, the sole measurement criterion is short-term profit at the expense of long-term financial sustainability as well as people, and the planet (Friedman & Mandelbaum, 2011, Krugman, 2012; Randers, 2012; Sachs, 2012). According to AVIVA's Corporate Sustainability Reporting Coalition (CSRC) (Aviva, 2011), an alliance of more than 40 like-minded private and institutional investors managing collectively approximately $2 trillion, and other significant investors (Tomorrow's Capital Markets, 2012), the following major issues contribute to the current crisis of capital markets making them unsustainable according to Brundtland's definition (World Commission on Environment and Development, 1987, p. 47). The current capital markets: (a) Measure value as a short-term "financial profit only and ignore significant underpriced externalities" (Tomorrow's Capital Markets, 2012, p. 20). Thus, they are not fully promoting the long-term sustainability of companies, but focus on short-term profitability and quarterly benchmarking, due to their current structures; (b) Lack reliable information and robust measurement criteria that could drive sustainable performance and could demonstrate reliably the value of non-financial information (i.e. social, environmental, governance company impact criteria named externalities) to investors; available investment products go rarely beyond

negative screening of particular sectors; (c) Rely on an extremely complex supply chain with "increasing complexity of products and services" (p. 20) that encourage speculative trading and become increasingly remote from the comforts, needs and anticipations of the primary beneficiaries; (d) Are locking the agents into "lifestyles dependent on high earnings . . . reinforces 'herd' behavior and can lead to inappropriate risk taking and/or focus on short-term financial returns in order to maintain reward levels" (p. 17) through its remuneration schemes; (e) Do not encourage sustainable results due to the "underpinning performance objectives and benchmarks against which performance is assessed" (p. 17). More important, the current system cannot become more sustainable because its incentive structures are predominantly influenced by short-term financial performance, market indices, benchmarks, market share, personal security, success, and reputation, as well as regulatory compliance, few of which contain long-term sustainability aspects, tagged as externalities. These incentives encourage unsustainable behaviors in the participating agents, which lead to a lack of alignment of goals, a culture of fear, growing self-interest, communication gaps, and high-levels of remuneration that are linked to short-term profits (Tomorrow's Capital Markets, 2012, p. 20).

In Randers (2012) view, capitalism in its current manifestation, for example, would not be able to provide the necessary paradigm shift because in its current design, it is made to allocate money to what is profitable in the short term and not to what society and/or the planet need in the long term. Gore (2006, 2011), Krugman (2012), Randers (2012) and Sachs (2008, 2012) believed that democratic parliaments would not pass new regulations in time out of fear of losing voters who could presumably be against solutions that require higher taxes and more expensive gasoline and/or electricity in the short term. According to the Brundtland definition (World Commission on Environment and Development, 1987/2009) and prior reflections, we

could conclude that our current political, financial and economic systems are failing because they are not sustainable long term. They barely meet the need of the present and are compromising the ability of future generations to meet their needs. Making them integrally sustainable ought to be our collective task and one of the most difficult one as well. This is due to the complexity of the problems, the prevalent short-term thinking, profit-only orientation, outdated measurement criteria, old dogmas, lack of understanding of exponential growth, inertia, and lack of a unified political will.

Part 2: Current Developments Toward the Creation of a Sustainable Financial System

Only the future, will show whether humanity will reach a collective level of consciousness in time to enable the implementation of more sustainable and responsible systems or not. Randers (2012), "the cynic" (Meadows & Randers, & Meadows, 2004, p. xvi) ended his book, *2052: A global forecast for the next forty years,* by pleading to "please help make my forecast wrong. Together we could create a much better world" (p. 253). Through this paper, we attempt to do exactly that. We begin with the 745 voluntary commitments made during Rio+20 (2012) the United Nations Conference on Sustainable Development. Although widely criticized, the outcomes of this conference could become a guiding light for humanity. More than 200 of the 745 commitments came from the business and financial community (The Global Compact, 2012, p. 5) and include (1) the Natural Capital Declaration (The Natural Capital Declaration, n. d.) emitted by 37 banks, investment funds, and insurance companies, which aimed to integrate natural capital criteria (soil, air, water, flora, and fauna) in their products and services; (2) the Sustainable Stock Exchanges Initiative (Panwar & Blinch, 2012), a commitment made by five major stock exchanges that collectively list more than 4,600 companies, with the intention to promote sustainable investments through a global call for sustainability disclosure and

performance by the companies listed on their trade floors; and (4) the AVIVA (2011) coalition discussed in the previous chapter.

The Transformation in Banking

More optimism comes from a report in favor of sustainable banking that was published by the Global Alliance for Banking on Values (GABV, 2012), an independent network of more than 24 of the world's leading sustainable banks including the GLS Bank, the Triodos Bank, the Shore Bank, and the Vancity Bank. Their total assets exceed $60 billion and positively influence the lives of more than 10 million people in 25 countries around the globe. The report, which assessed the performance of banks over ten years from 2002 to 2011 is (a) eliminating the myth about lower returns through sustainability, (b) showing that sustainable banks have higher returns on assets than regular banks, (c) indicating significantly higher levels of growth in loans and deposits than traditional banks, and (d) exhibiting higher and better quality capital inflows. The study revealed that sustainable banks are both investing more successfully in a greener and fairer society, and their business model is more robust and resilient than traditional banks. Prior to that research, Bank Sarasin, another progressive bank, confirmed in a study (Plinke, 2008) that fulfilling sustainability requirements "does not have a negative impact on the financial performance of share portfolios. This [research] challenges the widely held opinion that applying a sustainability filter actually restricts the optimal selection of investible stocks and therefore has a negative effect on the risk/return profile of sustainable portfolios. It also refutes the argument that environmental and social initiatives adopted voluntarily by companies are incompatible with market rules and tend to destroy value" (p. 5). Therefore, the GABV (2012) is calling on regulators to support sustainable banking principles and models in order to make the current banking system more sustainable and resilient. This would be in service of a more sustainable

economy and could be in a better position to fulfill the sustainability requirements formulated in the Brundtland report (World Commission on Environment and Development, 1987, p. 47).

The Transformation in Reporting

More reason for hope comes also from efforts that focus on more integrated financial reporting, which reflect people, planet and profit in their accounting systems. As we have seen earlier, the current corporate accounting and reporting frameworks need to evolve along with GDP accounting to include all factors that affect corporate performance, namely the social, environmental, and governance ones. Current financial reporting covers financial performance and this should remain a key component of the reporting universe. However, the present focus on a company's financial statements has shown to be insufficient to give investors enough information on the value of the organization and potential risk associated with environmental, social, governance, and other aspects. Addressing that is the aim of the International Integrated Reporting Council (IIRC), a "global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs . . . that shares the view that communication about businesses' value creation should be the next step in the evolution of corporate reporting" (The IIRC, 2013). At the foundation of Integrated Reporting is the increasing understanding that a wide range of aspects govern the value of an organization. Some of these aspects are financial and easy to account for, such as property or cash, while others are not, such as

> People, natural resources, intellectual capital, market and regulatory context, competition, energy security. Integrated Reporting reflects the broad and longer-term consequences of the decisions organizations make, based on a wide range of factors, in order to create and sustain value. Integrated Reporting enables an organization to communicate in a clear, articulate way how it is drawing on all the resources and relationships it utilises to create and preserve value in the short, medium and long term, helping investors to manage risks and allocate resources most efficiently (The IIRC, 2013).

The Transformation from an Investing Perspective

Even, more reason for hope comes from the current developments in the investing world and could be derived from the amount of capital invested in a more sustainable and responsible manner. A recent study (GSIA, 2012) shows that Global Sustainable Investments using some kind of Environmental, Social, and Governance (ESG) criteria reached US$ 13.6 trillion (=21.8 % of total AuM worldwide) in 2012. Herewith, we can find the following investment strategy splitting: (a) Negative/exclusionary screening of US$ 8.3 trillion AuM; (b) Norm-based screening of US$ 3.0 trillion AuM mostly Europe (65% of known SRI AuM); (c) Positive/best-in-class screening 1.0 trillion AuM, mostly US; and (d) Assets utilizing ESG integration being at US$ 6.2 trillion. Impact Investing theme investments are still fragmented and comparatively small at US$ 89.0 billion and Sustainability theme investments are also comparatively small at USD 83.0 billion.

From an investing perspective, the association governing the United Nations Principles of Responsible Investing (UN PRI) summarized the following areas that are currently being addressed (UN PRI, 2013): (a) *Company short-termism and overall market returns*—assessing to what degree companies weaken long-term investments by not including environmental, social, and governance (ESG) criteria in their strategies and tactics, and how investors ought to respond; (b) *Investor short-termism*—developing more attractive investment mandates, benchmarks, portfolio turnovers, and performance fees and metrics; (c) *Portfolio structure and strategic asset allocation*—exploring new approaches that include direct links to sustainable and responsible investing; (d) *Externalities*—identifying, qualifying, and quantifying the long term implications of missing out the integration of ESG criteria that are wrongly seen as externalities in the current short-term, for profit-only orientation. Exploring ways of internalizing the, so called, externalities are crucial for the long-term success of a sustainable finance system; (e) *Financial*

market stability—developing better risk management tools especially for the "too big to fail" organizations and introducing better regulatory systems to serve the interests of the long-term investors; (f) *Company disclosure*—Introducing voluntary and regulatory disclosure practices in companies for all information pertaining to long-term value creation; (g) *Financing the sustainable economy*—Facilitating the aggregation of the necessary capital to address the UN Sustainable Development Goals (SDG, 2012). The global implementation of these initiatives remains a Gargantuan task, which naturally leaves many questions unanswered. We will try to address some of these questions during the remainder of this paper through the lens of Wilber's (2000, 2000a, 2000b, 2006) integral framework.

Why the Need for An Integrating Model?

Gore, (2006, 2011), Friedman & Mandelbaum (2011), Krugman (2012), Randers (2012), and Sachs (2008, 2012) have no doubt that once mutual agreement is reached, the necessary capital, the willingness to accept short-term sacrifice, and the ability to perform the imperative tasks would be in place. Other than Krugman (2012), who thought we are blinded by old dogmas, Randers (2012) concluded, that based on past performance, humanity, as a whole, is "stupid enough not to do what is perfectly doable, namely, to allocate enough money and manpower up front to solve the climate crisis" (Randers, 2012, p. 236). Yet, solving the climate crisis is only *one* of the current crises. As we have seen, our economic, financial, and governance systems are also in need of overhaul and the precondition for fixing them is, of course, a better understanding thereof. Said economics Nobel Prize laureate Krugman (2012)

> We will not achieve the understanding we need, however, unless we are willing to think clearly about our problems and to follow those thoughts wherever they lead. Some people say that our economic problems are structural, with no quick cure available; but I believe that the only important structural obstacles to world prosperity are obsolete doctrines that clutter the minds of men (Krugman, 2012, p. 191).

In other words, according to Krugman (2012), our outdated dogmas impede us from thinking clearly even if the willingness to change were there. Yet, what people are *willing* to do and what ultimately determines what they will end up *doing* appears to be a function of their *meaning making* ability (Kegan, 1982, 1994) and their own levels of consciousness evolution (Commons & Armon & Richards (Eds.), 1984; Commons & Armon & Kohlberg & Richards & Grotzer (Eds.), 1990; Gebser, 1984; Gilligan, 1993; Goleman, 1995, 2000; Cook-Greuter, 2004, 2005, 2008). Moreover, according to Harvard professor and author of *Changing Minds: The Art and Science of Changing Our Own and Other People's Minds*, Howard Gardner (2004), *thinking,* or *cognitive intelligence* is only one of nine different intelligences (Gardner, 1993) that influence our decision process *and meaning making* process (Kegan, 1982, 1994). Beyond the logical-mathematical intelligence, to which it is mostly referred to when discussing intelligence, Gardner (2004) identified linguistic intelligence, musical intelligence, special intelligence, bodily-kinesthetic intelligence, naturalist intelligence, interpersonal and intrapersonal intelligence, and existential intelligence. They all influence human development and behavior (Commons & Armon & Kohlberg & Richards & Grotzer (Eds.), 1990; Gebser, 1984; Gilligan, 1993; Cook-Greuter, 2004, 2005, 2008; Wilber, 2000a, 2000b). For example, we all know about the important role emotions—emotional intelligence (Goleman, 1995)—play not only in our every day, mundane, lives but more so in the context of the "global casino" (Henderson, 2013) on Wall Street, for example

> At 1:08 PM on April 23rd a fake tweet from a hacked Associated Press account asserted that explosions at the White House had injured Barack Obama. Stock prices immediately dropped, wiping more than $130 billion off the value of the S&P 500. That understates the severity of the episode, since in many cases liquidity simply disappeared altogether (The Economist, 2013, April 23).

As we can see clearly by now, the desired changes toward sustainability occur within a very complex context. That includes what is obvious to the eye from the outside, namely the

environmental, financial, economic, and social structures, as well as the collective and individual behavior. But it includes also what cannot be seen from the outside namely the interiors—emotions, psychology, cognition—of participating agents, both the individual as well as collective players. What Krugman (2012) called "obsolete doctrines that clutter the minds of men" (p. 191) are actually socio-political and inter-objective contexts, rules, systems, and regulations. They contain also cultural inter-subjective and deeply ingrained norms, such as ethics and morals, that influence our individual and collective behaviors (Baier 1994/1996; Gilligan, 1993; Kohlberg & Ryncarz, 1990). These behaviors have evolved over thousands of years of human evolution (Wilber, 2000a, 2000b). To get a better understanding of this, let us take a closer look at a familiar model with which many business people have become familiar, namely Maslow's (Maslow & Stephens & Heil, 1998) pyramid of needs. According to Maslow (12998), humans apparently evolve during their lifetime along his pyramid, whether or not they are able to fulfill their needs. The model contains consecutive stages of development starting with (a) survival/physiological needs for air food water, sex, sleep; to (b) safety/security needs for health and property needs; to (c) social needs for love to (d) ego/self-esteem needs for confidence and achievement; (e) to self-actualization needs for high morals and creativity with lack of prejudice and acceptance of facts; to (f) self- transcendence needs (Maslow et al., 1998, Maslow, 1999). As individuals grow along these stages of development called by Gilligan (1923) from *selfish/preconventional* stages, via *care/conventional* stages, to *universal care/postconventional* stages of moral development, they apparently begin to take a more global view on life and adapt higher moral standards (Commons & Armon & Richards (Eds.), 1984; Commons & Armon & Kohlberg & Richards & Grotzer (Eds.), 1990; Gardner, 1993, 2004; Gebser, 1984; Gilligan, 1993; Cook-Greuter, 2004, 2005, 2008; Kohlberg & Ryncarz, 1990;

Wilber, 2000a, 2000b). Therefore, at later stages of development, individuals appear to be in a much better position to apply Kant's categorical imperative (Kant 1949/1993) and to make more compassionate decisions that come from a higher ethical standard, so badly needed in the current crises (Baier, 1994/1996; Blackburn, 2001; Dalai Lama, 1999).

Furthermore, from a collective perspective, the evolution of social systems and/or cultural structures can be categorized either (a) according to the infrastructural and techno-economic base of the society, which includes evolutionary periods such as the foraging, horticultural, agrarian, industrial, informational stages of development (Beck & Cowan, 1996); or (b) according to the predominant worldview of the culture such as archaic, magic, mythic, scientific-rational, pluralistic, integral (Gebser, 1949/1984) or simply pre-modern, modern and postmodern. The cultural worldviews are intimately correlated with the social techno-economic structures because they occurred together and are influencing each other. They are different facets of the same coin. Therefore, understanding and acknowledging the fact that the multitude of societies and cultures on earth are at different levels of evolution and following that at different levels of consciousness, is key within the context of this paper. This understanding, could help us address humanity's current problems by meeting people at their own levels of consciousness and not our own. It could help us be more compassionate with each other and acknowledge that humanity, as a whole is completely heterogeneous. It would help us see that humanity as a whole is *not* "stupid enough not to do what is perfectly doable" (Randers, 2012, p. 236) to solve current problems. Instead, we could see that due to its diverse evolutionary stages it is simply *impossible* for humanity as a whole to agree on the right path to action. We could see, however, that appropriate leadership could accomplish what humanity, as a whole, cannot. Similar to the Renaissance movement in the 14th century that flourished under the leadership of

the DiMedici dynasty, we could see that humanity, as a whole, would benefit greatly today from the leadership of a few individuals. This appears to be so, because according to Wilber (2006), only "individual holons [must] go through mandatory stages [of development], social holons don't" (p. 151). In other words, societies could greatly benefit from the leadership of compassionate individuals who are currently driving the activities described above.

With that in mind, it would seem that the definition of sustainability outlined in the Brundtland Report was written by a group of leaders whose center of gravity was apparently at later stages of development namely *universal care/postconventional* (Gilligan, 1984). However, their requirements must be imposed through regulations otherwise they will not be implemented. The LIBOR (The Economist, 2013, May 13) scandal or the securitization of home mortgages that lead to the subprime mortgage scandals (Krugman, 2009) are typical examples for (a) lack of sustainability regulation and (b) an incentive structure in today's capital markets that has triggered unethical behaviors in the participating agents no matter how evolved the societies around them were (Krugman, 2009; Sachs, 2012; Stiglitz, 2010).

In summary, we have much reason to hope that humanity would have the ability to do what is necessary to address current crises from a financial perspective (AVIVA, 2011; GABV, 2012; GSIA, 2012; The IIRC, 2013; The Natural Capital Declaration (n. d.); Tomorrow's Capital Markets, 2012; UN PRI, 2013). As we have seen, there appears to be general agreement that our financial and economic systems must become sustainable by moving away from the current short-term profit-only orientation to long-term financial sustainability, which also must include environmental, social, and governance measurement criteria. We could also agree that the context of the global economy is much more multifaceted than originally conceived and obeys exponential growth. It is a complex web of interrelated and intra-connected *ecological* structures,

social systems, and *cultural* determinants, which are all subject to *evolution* from less evolved structures to more complex ones (Gebser, 1984; Wilber, 2000, 2000a, 2000b, 2006). We have also seen that the necessary transformations require a change in *behavior* of participating agents, which must now act in a much more ethical manner if we want to achieve the sustainability goals set by the Brundtland Report (World Commission on Environment and Development, 1987/2009) or the Sustainability Development Goals (SDG, 2012) of the United Nations. Moreover, it has also become apparent that human *behavior* is also a function of interior factors such as consciousness, emotions, psychology, and a whole host of nine different intelligences (Gardner, 1993, 2004) that are subject to *evolution* as well (Commons & Armon & Richards (Eds.), 1984; Commons & Armon & Kohlberg & Richards & Grotzer (Eds.), 1990; Gardner, 1993, 2004; Gebser, 1984; Gilligan, 1993; Cook-Greuter, 2004, 2005, 2008; Kohlberg & Ryncarz, 1990; Wilber, 2000a, 2000b). Therefore, humanity could draw even more hope from the "consciousness leadership" (Bozesan, 2010, p. 12) of compassionate individuals who are driving current "integral sustainability" (Brown, 2007, p. 1; Esbjörn-Hargens & Zimmermann, 2009, p. 245) efforts summarized earlier (AVIVA, 2011; GABV, 2012; GSIA, 2012; The IIRC, 2013; The Natural Capital Declaration (n. d.); Tomorrow's Capital Markets, 2012; UN PRI, 2013). From an integral investing perspective, we call such individuals integrally acting investors, integrally informed investors, or integral investors. These will be discussed next after a short introduction of Wilber's (2000) Integral Framework and Integral Investing.

Wilber's Integral Model

In 1995, when we began our investing activities, we sought an investing model that would give us a more comprehensive perspective on the world in which we wanted to make a difference. We belong to the post-modern generation of "cultural creatives" that in the year 2000

represented between 25 and 30 percent of the Western population (Ray & Anderson, 2000). The "cultural creatives" were the architects of LOHAS, an acronym for Lifestyle of Health and Sustainability (2013); a market that is valued at hundreds of billions of dollars (Ernst & Young, 2008). The traditional Venture Capital model did not provide to us the necessary framework to invest with our values. We felt that traditional investing models were missing important aspects of life and we wanted to integrate all humanity's *Value Spheres* (Plato, 1969/1938), namely the *True*, the *Good*, and the *Beautiful*—or Science, Morals, and Arts. Our investment motto became the six Ps: the Parity of People, Planet, Profit, with Passion and Purpose. Soon, we discovered Wilber's (2000, 2000a, 2000b, 2006) integral model that fulfilled our requirements (Figure 1).

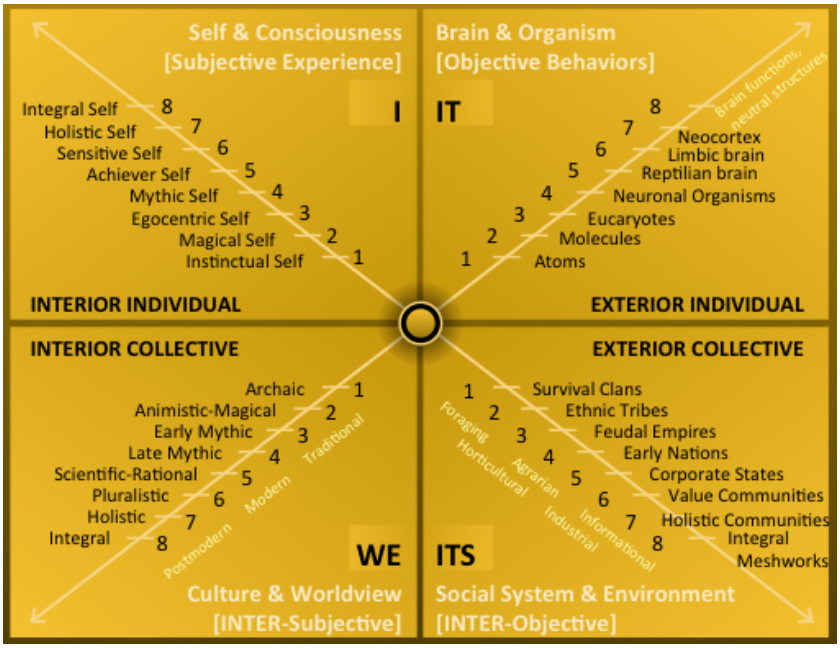


Figure 1: Wilber's Integral Model and Evolution (Wilber, 2000a).

Wilber's (2000) Integral Framework provided us with a post-post-modern investment model that enabled us to implement the desired integration. It was based and not only on Plato's (1969/1938) irreducible value spheres. It also included Kant's (1949/1993) *Big Three* critiques; the *Critique of Pure Reason* (the True, "IT" or objective rationality), *Critique of Practical Reason* (the Good, "WE," or morals), and *Critique of Judgment* (Beauty, "I," or subjective

reality); but also Habermas's (1992) indivisible three Worlds (objective, subjective, and cultural).

The upper-left quadrant in Wilber's (2000a) model refers to the *interior individual* domain or the *terrain of experience*. It is the personal subjective area and the inner life of an individual. It "includes the entire spectrum of consciousness as it appears in any individual, from bodily sensations to mental ideal to soul and spirit" (Wilber, 2000a, pp. 62-63). Here is the home of our individual interiority and contains several lines of interior development including cognition, aesthetic, morals, emotions, self, and ego development. Especially after the 2008 financial disaster, the call for higher ethics increased significantly. Yet, humans do not grow at will and not over night. According to leading developmental psychologists such as Graves (Beck & Cowan, 1998), Gilligan (1982/1993), Cook-Greuter (2005), Kegan (1982), Kohlberg & Ryncarz (1990), Loevinger (1977), Maslow (1999), and Wilber (2000a), we are subject to an evolutionary process. Those of us who have ever tried to stop smoking, lose weight, or change any unwanted behavior know how difficult such a process can be. Yet whether we acknowledge it or not, this subjective territory influences each and every one of us individually as well.

The lower-left quadrant (Figure 1), the *terrain of culture*, enlarges the perspective of reality through the interpersonal subjective areas of our culture, such as beliefs, norms, justness, and goodness. Wilber (2000b) defined this quadrant as "the values, meanings, worldviews, and ethics that are shared by any group of individuals" (p. 63). The cultural context in which for instance investing, businesses, politics, science, and education occur, are at the heart of our inter-subjective, collective humanity. It gives our existence meaning, we become almost inseparable from it, because it becomes what we perceive to be our absolute reality. The reason why within the parameters of neo-classical economics, the two *territories of felt experience* and *culture*—

individual and collective interior—have been excluded is because it erroneously seemed difficult to prove in a scientific manner (Camerer & Loewenstein, 2004). This separation occurred because neither behavioral economics (Kahneman & Tversky, 1982) nor scientific psychology existed as academic disciplines at that time. As a result, the interior dimensions were dropped all together and neo-classical economics was reduced to profit and utility maximization. Based on the prevalent collective center of gravity at that time, the notion of the *self-interested homo economicus* (Aspromourgos, 1986) was born. The financial crisis of 2008 was the culmination of this application and this paper is attempting to demonstrate how this is currently changing within the field of investing, business, and economics.

Wilber's (2000a) upper-left quadrant (Figure 1) refers to the exterior or the more objective states of being, the *terrain of behavior* also called the individual exterior/objective domain. This terrain is more easily measurable with the scientific methods available today and includes "the brain mechanisms, neurotransmitters, and organic computations that support consciousness" (Wilber, 2000b, p. 63). The objective perspective at this level permits the examination of exterior behavior and the structure of each individual phenomenon from humans to animals to insects. This is traditionally the home of natural sciences including cognitive science, mathematics, financial theory, chemistry, physics, biology, biochemistry, neurophysiology, and empiricism.

The lower-right quadrant (Figure 1) is the *territory of systems theory and analysis*. This quadrant is the area in which institutions, businesses, and geopolitical organizations are traditionally inter-operating in an objectively measurable and systemic way. Similar to the upper right quadrant, this is also the domain in which science has conventionally been active but from the perspective of social sciences and systemic natural sciences. This is the home of economics,

business, civil and environmental engineering, ecology, astronomy, astrophysics, sociology, and other systemic and infrastructural contexts. The inter-objective perspective that can be taken at this level permits the configuration and exterior behavior analysis of collective phenomena. These include economic and financial systems, ecological and social systems, as well as legal and political systems.

Integral Investing

We began applying Wilber's (2000) Integral Framework regularly in our investing efforts because it fulfilled our 6Ps, provided a comprehensive lens for looking at the multidimensional world, and helped us significantly improve our due diligence process, and reduced our investment risk. This was the birth of what we call *Integrally Informed Investing*, *Integrally Acting Investing*, or *Integral Investing* (Bozesan, 2013). *Integral Investing* is defined as the application of Wilber's Integral Framework in investing across all asset classes. By using the Integral Framework, we began to notice that evolutionary aspects, as well as behavior, consciousness, and cultural dimensions are largely missing in current investing paradigms, whether we consider traditional investing or more progressive forms of investing such as impact investing, triple bottom line investing, mission related investing, sustainable and responsible investing, value investing, blended value investing, or even venture philanthropy. Integral Investing was born out of their integration according to the integral framework (Figure 2). The detailed discussion behind this integration (Figure 2) is discussed at length in previous publications (Bozesan, 2011a, 211b, 2012, 2013) and will not be repeated it here.



Figure 2: Traditional Investing and Impact Investing Are Converging Toward Integral Investing.

Wilber's (2000) irreducible, all-quadrants, all-levels, all states model helped us understand that depending upon their altitude on the evolutionary latter—individually or collectively—investors, business people, economists, in short investing agents, will have a different view of reality. For example, an average investor in a post-modern society such as Western Europe will most likely have a different view of the world and therefore another investing behavior and portfolio than an investor from an emerging economy such as the BRIC states (Brazil, Russia, India, China). Thus, the application of Wilber's integral model allowed us to take a much more differentiated view of individual and collective patterns in our investees, but also in our co-investors, as well as geography and industry. For the first time, we refined our investment metrics by adding not only the four quadrants but also the vertical altitude in each quadrant as well as additional considerations regarding the horizontal integration of the quadrants. In a global context, it allowed us to take multiple worldviews whereby helping us significantly reduce the investment risk. It did that by providing us with a whole host of tools to do it (Wilber, 2006). We were not surprised to learn that Wilber's (2000a, 2000b) Integral theory was widely applied in more than 40 disciplines including science, politics, economics, education,

medicine, and business, such as at McKinsey (Wilber, 2000, 2006). Moreover, Wilber (1998) was endorsed by Nobel Prize laureate Al Gore, former US President Bill Clinton, and former Secretary of State Hillary Rodham Clinton to name only a few.

Integral Investors

In a similar way, we call *Integrally Informed Investors, Integrally Acting Investors,* or *Integral Investors* (Bozesan, 2012, 2013) people who invest their money either consciously or not consciously using Wilber's (2000) Integral Model. Preliminary research (Bozesan, 2010, 2011a, 2011b, 2012, 2013) indicated that current activities and initiatives toward more sustainable financial and economic systems are apparently driven by such investors (Gore, 2010; Kelly, 2010, 2010a, 2010b; Vanderbeck, 2011), business people (Makey & Sisodia; 2012; Sisodia & Sheth & Wolfe, 2007), economists (Arnsperger, 2010), and other public figures (Krugman, 2012; Sachs, 2012; Stiglitz, 2010). Some of this research, which must be expanded and which was described in detail in previous publications (Bozesan, 2010, 2012, 2013), characterize these leaders as individuals who appear to have evolved to later stages of human development. Bozesan (2010, 2012, 2013) represented their transformation path using Campbell's (1949/1968) Hero's Journey but it could, in fact, have been exemplified more accurately using developmental models including those of Graves (Beck & Cowan, 1998), Gilligan (1982/1993), Cook-Greuter (2005), Kegan (1982), Kohlberg & Ryncarz (1990), Loevinger (1977), Maslow (1999), or Wilber (2000a). Important is that these so-called integrally acting, informed, or integral investors now seem to be driving the current efforts toward more sustainable financing, economics, and business efforts. They appear to do that (1) by generating integrally sustainable wealth that occurs at the intersection between traditional investing and philanthropy; (2) by "actively seeking to balance the need for financial return with the yearning

to make life a little better for others and the Earth" (Brill, 2010); (3) through "the power of Conscious Capitalism as a method of creating superior and sustainable long-term value" (Vanderbeck, 2011); by (4) "integrating issues such as climate change into investment analysis [because it] is simply common sense" (Gore, 2010); or (5) by contributing "to a tipping point in the great transition from a fossil-fueled Industrial Era to the cleaner, greener Solar Age" (Henderson, 2013, p. 43). In short, these integrally acting investors seem to be implementing the parity of people, planet, and profit along with their purpose and passion for life along all four Wilberian (2000) quadrants, structures, and evolutionary stages.

More important, Integral Investing does not imply that its players ought to be highly evolved or super humans in order to qualify, although they could. Instead, this model proposes the application of Wilber's (2000) integral theory at each and every stage of development. Its value is provided by informing participants about additional aspects of reality—including interior, evolutionary, behavioral, inter-objective, and inter-subjective—that are constantly co-arising and affect us whether we are aware of them or not. It encourages a broader view of reality in investing with the intention to fulfill Brundtland's (World Commission on Environment and Development, 1987/2009) request for a sustainability, which "meets the need of the present without compromising the ability of future generations to meet their own needs" (p. 43).

Next, we will highlight the application of Wilber's (2000) Integral Model represented in (Figure 1) through the vantage point of Venture Capital and Business Angel investing, as a specific asset class.

Part 3: AQAL Capital: An Example of Venture Investing Informed by the Integral Model

Small and Medium Enterprises (SMEs) are the key engine for any thriving economy and critical to the future of innovation and creativity in the world. For example, despite the economic downturn of the past decade European SMEs

> Have retained their position as the backbone of the European economy, with some 20.7 million firms accounting for more than 98 per cent of all enterprises, of which the lion's share (92.2 percent) are firms with fewer than ten employees. For 2012 it is estimated that SMEs accounted for 67 percent of total employment and 58 percent of gross value added. (Wymenga, Spanikova, Barker, Konings, and Canton, 2012, p. 9).

Therefore, funding Research & Development and commercializing new ideas is absolutely critical to the future of humanity. Governments, corporations, as well as institutional and private investors provide the necessary funding. From an investor's perspective, this kind of capital is considered very high risk, thus the term Venture Capital. Let us take a quick look at how this particular asset class operates.

How Traditional Venture Capital Works

Investors in venture capital funds are traditionally large institutions such as endowments, pension funds, philanthropic organizations but also high-net worth individuals. Traditionally, they allocated a small portion of their funds to VCs and expected "a return of between 25 percent to 35 percent per year over the lifetime of the investment" (Zider, 1998), which lasts on average seven to ten years. The key to fulfilling these VCs' expectations is associated with (a) the investment profile and (b) the deal structure. The investment profile is determined by the industry (i.e. Internet, clean-tech, bio-tech, healthcare, megatrends), the investment stage (early stage, expansion stage, or later stage), and geography. In order to fulfill the return on investment expectations, timing is everything. Therefore, VCs are under significant pressure to help make a company successful, quickly, and lead them toward an exit that could be an IPO (Initial Public

Offering) or selling the company to a major corporation. Therefore, they have to seek (a) the hottest business ideas that have the potential to grow to massive scale; (b) highly competent management teams that grow the company quickly in the right industry; and (c) strike a good deal structure while avoiding all-potential risks (i.e. technology, financial, regulations, geography, team, portfolio). Venture Capital is one of the toughest industries to be in and "on average, good plans, people, and businesses succeed only one in ten times" (Zider, 1998, p. 136) under thriving economic conditions. Yet, since the dot.com bubble burst in 2000 and the 2007/8 financial crises, we have experienced massive economic challenges, as outlined above. This affected, of course, the VC industry in a negative way. The results were (a) inability to deliver the expected returns between 25 and 35 percent per annum, (b) less funding for early stage ventures and a shift toward more expansion stage financing, and (c) "lack of investor confidence [that] resulted in a year-on-year fall in the number of funds raised annually, as well as a general decrease in aggregate capital raised" (Preqin, 2012, May, p. 11). In fact, some experts in the industry such as the Kauffman Foundation (Mulcahy & Weeks & Bradley, 2012) went, as far as to claim "the VC model is broken, despite occasional high-profile successes like Groupon, Zynga, LinkedIn, and Facebook in recent years" (p. 2). Whether the VC model is broken or not is subject to a longer conversation, true is that it must transform to serve the current needs of humanity outlined in previous chapters. The question is how and next we will present our approach to it.

AQAL Capital: An Integral Venture Model

We began our investment career in start-up funding by applying traditional Venture Capital (VC) or rather Business Angel Investing criteria. We were high-tech educated business people and entrepreneurs turned investors. Like any other player in this field, we looked for (a)

"hot" and disruptive ideas that would ideally be patent-protected, and revolutionize the industry; and (b) highly successful and brilliant entrepreneurs, preferably serial entrepreneurs, who would be great team players and outstanding managers, flexible, appreciate the cost of capital and the value that we would bring to them, and want to take their company public (IPO) in less than five years. We understood quite well the void we were trying to fill with our funding niche. We knew that this industry existed due to the structure and regulations of the capital markets that justified higher rates than traditional bank loans, which required hard assets to secure the debt, not usually available from entrepreneurs. We were young, well-educated, and dynamic. We took risks, the timing was right, and we became successful. Yet, after a while, playing the financial-only game ceased to be fulfilling especially as we became aware of the increasing environmental degradation, the loss of bio diversity, overpopulation, and other indications of a world slightly gone mad. During the day, we were building successful companies, and on weekends we were supporting more than 38 philanthropic organizations worldwide. On one hand, we worked very hard to fulfill our dreams through technology. On the other, we felt the moral need to make a difference in the world, reduce humanity's carbon footprint, and help get the less privileged out of poverty through philanthropy and venture philanthropy. Eventually, we wanted to integrate these two worlds and Wilber's (2000) Integral Framework—in short AQAL model—provided us with the perfect map to do that.

The Investment Philosophy.

As investors, we are the custodians of financial capital, natural capital, and human capital—including interior values such as joy and happiness. We are deploying capital for sustainable and optimal risk-adjusted financial return coupled with long-term, premium-impact return. Our investment philosophy is based on integral sustainability in investing and integration

of the 6Ps: the Parity of People, Planet, and Profit, with Passion and Purpose. We combine investment criteria common in the traditional VC scene with criteria that include environmental, social, governance aspects, but also happiness and making-a-difference-in-the-world factors. Therefore, we provide integral sustainability, which is located at the intersection between risk-adjusted financial return and premium impact return Figure 3.

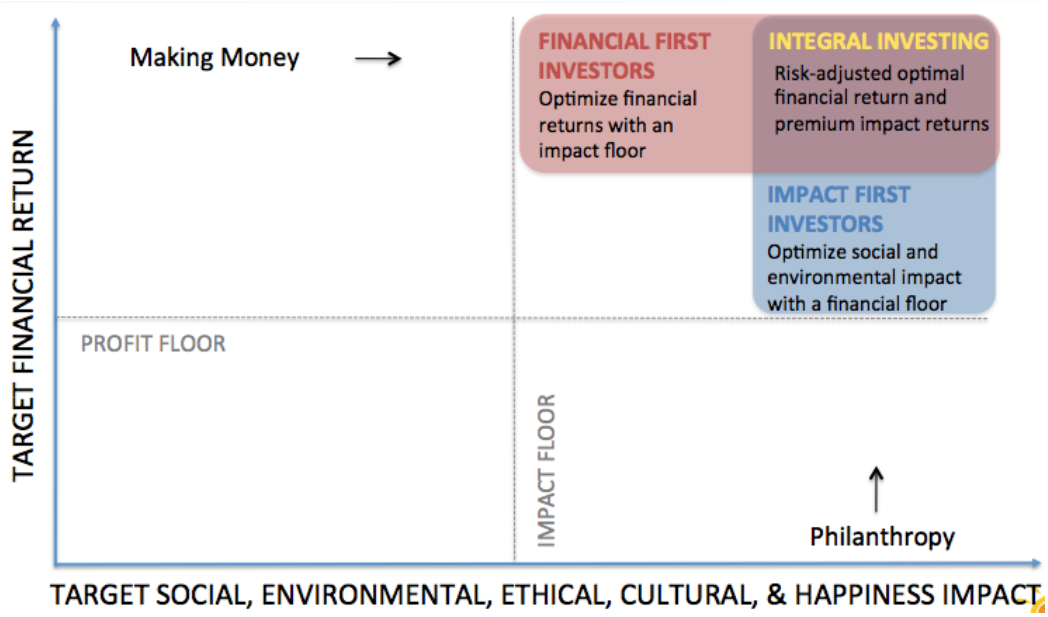


Figure 3: AQAL Ventures Positioning.

All participants appreciate these multiple criteria because they involve the whole aspects, multiple bottom lines, and not just one bottom line, the financial one. Our investors trust us because of our rigorous fiduciary responsibility but also because they know that will have an integral impact in the world and can self-actualize through their financial engagement. Our investees trust us because we appreciate all of who they are and not just their ideas and how they can be monetized in the shortest period of time.

The Portfolio Companies.

We have evaluated thousands of deals and invested hundreds of millions of dollars in businesses globally either through traditional investing practices or through venture philanthropy

and impact investing. We feel deeply responsible for the integral impact of our activities and that of our portfolio companies because our intention is to create integrally sustainable companies from the very beginning. Wilber's (2000) Integral Framework helps us do that in a much more efficient and effective way.

Our portfolio companies (1) *solve real customer problems*; (2) implement *innovative business ideas*; (2) have a specific sector focus (transformative technology, climate change, megatrends); (3) have the ability to *massively scale* into a worldwide marketplace; (4) are lead by *dedicated, resilient, outstanding, and integrally acting teams* (Bozesan, 2010, 2011a, 2011b, 2012, 2013); (5) are totally committed to integral sustainability criteria including, financial, environmental, social, and governance measurements as well as displaying ethical behavior and creating a culture based on higher consciousness; and (6) support transparent reporting (The IIRC, 2013). For example, the key to the success of several of our portfolio companies was their focus on cultivating a corporate culture based on trust, interdependency, integrity, transparency, caring, passion, and fun in addition to the desire to be financially sustainable. These companies went public or had an exit in less than three years and became highly successful. We still receive calls from former employees longing for the great times they had working for these particular organizations. In two cases, the original founders started new enterprises that became again very successful despite the economic downturn of the past decade. These organizations have not only happier employees, and higher customer stickiness, but also significantly higher return on investments (ROI) than others that did not emphasize a culture based on higher values. Our experience is also corroborated by research performed in companies with a culture of sustainability (Eccles & Ioannou & Serafeim, G., 2011; Mackey & Sisodia, 2013; Sisodia &

Sheth & Wolfe, 2007). Corporations with a culture based on higher values performed financially on average, 8 times better than S&P 500 companies (Figure 4).

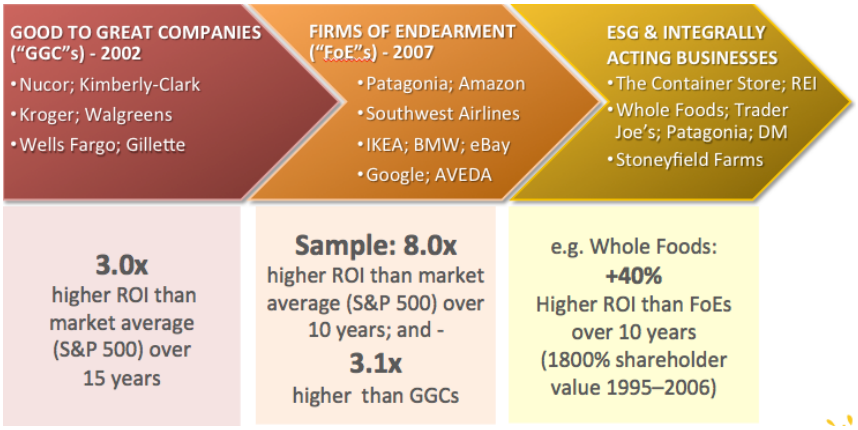


Figure 4: Financial Performance Compared.

Whole Foods, for example, a US company that we would consider to be an integrally acting organization, had 40 percent higher ROI that *Firms of Endearment* (FoE) (Sisodia & Sheth & Wolfe, 2007) over a period of ten years. The shareholder value of investors in Whole Foods grew between 1995 and 2006 to more than 1800 percent (Figure 4).

	15 Year		10 Year		5 Year		3 Year	
	Cumulative	Annualized	Cumulative	Annualized	Cumulative	Annualized	Cumulative	Annualized
FOE Return	1646.1%	21.0%	254.4%	13.5%	56.4%	9.4%	77.4%	21.1%
GTG Return	177.5%	7.0%	14.0%	1.3%	-35.6%	-8.4%	-23.2%	-8.4%
S&P 500 Return	157.0%	6.5%	30.7%	2.7%	15.6%	2.9%	10.3%	3.3%

Figure 5: Detailed Financial Evidence in Favor of Firms of Endearment (Mackey & Sisodia, 2013).

As one would expect, such inner success (culture, and individual happiness) and outer success (financial, environmental, social) is the result of outstanding leadership of these companies' leaders. We call such leaders in consciousness, consciousness leaders, integrally acting leaders, or integrally informed leaders (Bozesan, 2010, 2011a, 2011b, 2012, 2013). We

are in a position of identifying such leaders and their teams through the application of Wilber's (2000) integral model in venture investing. Bozesan (2010, 2012, 2013) described at length what characterizes such people, how they show up in the world, and how they can be identified. Our technique for such an assessment is proprietary and is still being refined. It has helped us be very effective, efficient, and successful in our integral ventures activities.

The Measurement Criteria.

Our core investment philosophy mandates that rigorous financial measurement criteria be intimately correlated with social, environmental, cultural, behavioral, as well as ethics, morals, and higher human values. Our methodology is an accelerator in both decision-making and the speedy creation of successful and sustainable companies from the very beginning. Therefore, we use as measurement criteria (a) the sustainable integration between traditional, profit-oriented, investing criteria; (b) impact investing measurements with its social, environmental, and governance (ESG/UN PRI) metrics; and (c) behavioral, cultural, and consciousness criteria as defined in Wilber's (2000) integral framework.

Within the context of this paper, there is no need to elaborate further on the rigorous financial due diligence that we apply toward financial sustainability. Much less known and rarely applied within the context of start-up venture financing are the Principles for Responsible Investing (UN PRI) to which we subscribe. They were launched on April 2006 by UN Secretary General at the NY Stock Exchange and contain the following commitments:

1. We will incorporate Environmental, Social, and Governance (ESG) issues into investment analysis and decision-making processes.
2. We will be active owners and incorporate ESG issues into our ownership policies and practices.

3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.
4. We will promote acceptance and implementation of the Principles within the investment industry.
5. We will work together to enhance our effectiveness in implementing the Principles.
6. We will each report on our activities and progress towards implementing the Principles.

The ESG criteria are summarized in Figure 6



Figure 6: Overall Description of Environmental, Social, and Governance criteria.

With AQAL Ventures, we are contributing to the development of a more sustainable Venture Capital practice. Therefore, in addition to risk-adjusted, time-based, market-rate of financial returns we adopt, the Impact Investing definition of the Global Impact Investing Network (GIIN, 2013): "Impact investments are investments made into companies, organizations, and funds with the intention to generate measurable social and environmental impact alongside a financial return. They can be made in both emerging and developed markets." At this point in time, we focus mainly on developed countries, but are open to other geographies. With respect to ESG measurement criteria we observe also various additional systems that help us perform our ESG commitments. We are very interested in standardized

metrics and are, therefore, active in various organizations that do that. These include the UN PRI (2013), the IIRC (2013), the Impact Reporting and Investment Standards (IRIS) (GIIN, 2013), and the Club of Rome (2013).

Having been informed by Wilber's (2000) Integral Model, we cannot help, however, but notice that the current efforts toward a more sustainable financial system are concentrated on Wilber's lower right quadrant (Figure 1). This appears to be the case whether we consider traditional investing or more progressive forms of investing such as impact investing, triple bottom line investing, mission related investing, sustainable and responsible investing, value investing, blended value investing, or even venture philanthropy (Bozesan, 2013). We have also noticed that evolutionary aspects are completely missing in these investing paradigms along with the drivers behind the behavioral dimensions—shown in Wilber's (2000) upper right quadrant (Figure 1). Further interior dimensions such as human intelligences—shown in Wilber's (2000) upper left quadrant (Figure 1)—and cultural aspects—shown in Wilber's (2000) lower left quadrant (Figure 1) are also missing. The scientific community from economics, finance, behavioral finance to neuroscience and psychology (Camerer & Loewenstein, 2004; Yazdipour, 2011) appears to be united in the fact that behavior is influenced by our psyche "in-here" rather than "out there." These various dimensions of consciousness are permanently co-arising and are deeply influencing us (Wilber, 2000b) and our decisions whether we consider them or not (Beauregard & O'Leary, 2007; Kahneman & Tversky, 1982; Newberg & Lee, 2005; McCraty, 2001). This is the reason why we have developed proprietary tools for our own due-diligence process, which integrate all four quadrants, thus the name AQAL—all quadrants, all lines of development. Describing these metrics is beyond the scope of this paper. However, Figure 7 shows a few such tools than can be applied for each of the four Wilberian (2000) quadrants.



Figure 7: Integral Sustainability Metrics.

In conclusion, we have much in common with traditional VC firms whose measures of success we include and transcend to the next level of evolution. These success criteria include the potential to grow portfolio companies to massive scale, support outstanding teams, and promote a clear value proposition. The major difference is the fact that our AQAL-based methodology helps us better mitigate the investment risk and be more successful in the long term through the integration of (a) rigorous financial measurement criteria; with (b) Environmental, Social, and Governance (ESG) metrics (UN PRI, 2013); with (c) our commitment to Brundtland's sustainability definition (World Commission on Environment and Development, 1987/2009); with (d) our pledge to create sustainable companies from the very beginning, have them be transparent about the value created (IIRC, 2013), and comply with the International Stock Exchange Initiative to get a good rating in case they want to go public through an IPO (Panwar & Blinch, 2012); and with (d) our obligation to reduce the investment risk through the application of Wilber's (2000) Integral framework and our proprietary criteria. Moreover, our integral venture model supports us make a difference in the world and self-actualize through our investments.

Summary

This paper made the case for Integral Ventures as an example for integral sustainability in Venture Capital. It provided a contribution to the current financial crisis from the perspective of high-risk venture financing as a specific asset class because we consider early stage funding of innovative ideas critical for the future of humanity. This kind of capital has decreased in the current crises, as investors have been reluctant to fund high-risk, start-up ventures. In Part 1 of this paper, we set the scene by presenting the global context in which current crises occur from the financial but also the social, and environmental perspectives. We introduced the concept of exponential growth to explain the mathematical complexity behind current problems and why it is difficult for most people to understand what is happening at global scale until it could be too late to respond. Although there are good reasons to believe major scientists that humanity is headed for major environmental, social, and economic disaster in the 21st century, we chose to provide hope through our approach to investing. We believe in the resilience of the human species and our ability to turn crises into opportunities. Therefore, in Part 2 of the article we summarized current developments toward sustainable finances, banking, reporting, and investing. We introduced Integral Investing as the application of Wilber's Integral Model in investing and made the case for its value add. Through the application of Wilber's Integral Framework in investing we hope to enhance the current lens through which we look at the world, identify co-arising but missing aspects, and contribute to the creation of a more integrated and sustainable financial and economic system. In Part 3, we showed how Integral Investing is being applied in Venture Capital to help make this particular asset class integrally sustainable. As technological innovation will continue at historical rates and there will probably be little change in fundamental values and preferences, investment money is needed to address the new problems

that are prone to occur such as resource depletion, increasing pollution, massive climate change, growing inequity, and substantial social conflict. Through Integral Ventures, we offered a model through which the transition from a fossil-fueled economy toward a "sustainable well-being" economy (Randers, 2012, p. 12) could occur from an integral, early stage venture capital perspective. Such a transition may seem to some people like a miracle. However, it would not be the first time that humanity has united to create things that resemble miracles. We are willing and propose to take this chance. Integral Ventures may be such a contribution toward integral sustainability in venture investing.

References

Aspromourgos, T., (1986). On the origins of the term 'neoclassical'. *Cambridge Journal of Economics*, 10(3), 265 -270.

Aviva (2011, Sept 20). Aviva convenes Corporate Sustainability Reporting Coalition. Retrieved August 7, 2012, from http://www.aviva.com/research-and-discussion/articles-and-research/13023/

Baier, A. C. (1994/1996). Moral prejudices. Cambridge, MA: Harvard University Press.

Beauregard, M., & O'Leary, D. (2007). *The spiritual brain: A neuroscientist's case for the existence of the soul.* New York: HarperCollins.

Becerra, J., Damisch, P., Holley, B., Kumar, M., Naumann, M., Tang, T., Zakrazewki, A. (2010). *Regaining Lost Ground: Resurgent markets and new opportunities.* Retrieved September 10, 2010, from http://www.bcg.com/documents/file50074.pdf.

Beck, D. E., & Cowan, C. C. (1996). *Spiral dynamics: Mastering values, leadership, and change.* Malden, MA: Blackwell.

Beyond GDP. (2013). Viewed May 15, 2013 at http://www.beyond-gdp.eu/index.html

Boeckler, H. Stiftung, (2009). *Neue Studie warnt vor Altersarmut: Vermoegen in Deutschland zunehmend ungleich verteilt*. Pressedienst Hans_Boeckler-Stiftung. Downloaded Oct. 10, 2010 from http://www.boeckler.de/pdf/pm_fofoe_2009_01_21.pdf

Bozesan, M. (2010). *The making of a consciousness leader in business: An integral approach*. Published Ph.D. Dissertation, ITP Palo Alto. Redwood City, CA: SageEra.

Bozesan, M. (2011a, April). *The future of investing and business: An integral view from an investors' perspective*. Paper presented at the 14th International Business Research Conference, Dubai, UAE, April 28-30th, 2011. World Business Institute Australia. ISBN 978-0-9804557-6-2. April 28, 2011. Downloadable from http://www.wbiconpro.com/206-Mariana.pdf

Bozesan, M. (2011b, June). The future of Wall-Street: An investor's perspective from the intersection of capital, philanthropy, business, and human evolution. Paper held at the 2011 SIBR Conference on Interdisciplinary Business and Economics Research June 16-18, 2011 in Bangkok, Thailand. Downloadable at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1869348

Bozesan, M. (2012). Why some investors care about the parity of people, planet, and profit, and others do not. *Wirtschaftspsychologie* Heft 2-2012, p. 100-111. Lengerich, Germany: Wolfgang Pabst Science.

Bozesan, M. (2013, in press). Demystifying the future of investing: An Investor's perspective Part 1. This paper is embargoed by the *Journal of Integral Theory and Practice* and is scheduled for publication in June 2013 by MetaIntegral.

Black, R., & Morris, S., & Bryce, J. (2003). Where and Why Are 10 Million Children Dying Every Year? *The Lancet* 361:pp. 2226-2234.

Brown, B., C. (2007). *The four worlds of sustainability: Drawing upon four worlds of perspectives to support sustainable initiatives*. eBook, version February 20, 2007. Downloaded from http://nextstepintegral.org/wp-content/uploads/2011/04/Four-Worlds-of-Sustainability-Barrett-C-Brown.pdf

Camerer, C. F., & Loewenstein, G., (2004). Behavioral economics: Past, present, future. In Camerer, C. F., Loewenstein, G., & Rabin, M., (Eds.), *Advances in Behavioral Economics* (pp. 3-51). Princeton: Princeton University Press.

Campbell, J. (1968). *The hero with a thousand faces*. New York: Princeton University Press. (Original work published 1949)

Collins, J. (2002). Good to great: Why some companies take the leap and others don't. New York: HarperCollins.

Collins, J. C. (2005, July–August). Level 5 leadership: The triumph of humility and fierce resolve [Electronic version]. *Harvard Business Review OnPoint Article,*1-11. Reprint No. R0507M. Retrieved November 8, 2008, from http://harvardbusinessonline.hbsp.harvard.edu/b01/en/common/item_detail.jhtml;jsessionid=T03J355YT5XLMAKRGWDSELQBKE0YIISW?id=R0507M&referral=7855&_requestid=32335

Commons, M. L., Armon, C., Kohlberg, L., Richards, F. A., & Grotzer, T. A. (Eds.). (1990). *Adult development: Models and methods in the study of adolescent and adult thought.* New York: Praeger.

Commons, M. L., Richards, F. A., & Armon, C. (Eds.). (1984). *Beyond formal operations: Late adolescent and adult cognitive development.* New York: Praeger.

Cook-Greuter, S. R. (2004). Making the case for a developmental perspective [Electronic version]. *Journal of Industrial and Commercial Training*, 36(7), 275-281.

Cook-Greuter, S. R. (2005). *Ego development: Nine levels of increasing embrace.* Retrieved October 4, 2008 from www.cook-greuter.com/9%20levels%20of%20increasing%20embrace%20update5201%2007.pdf

Cook-Greuter, S. R. (2008). Mature ego development: A gateway to ego transcendence? [Electronic version]. *Journal of Adult Development,* 7(4), 227-240.

Club of Rome (2013). The Club of Rome is a global think tank elite consisting of current and former Heads of State, UN luminaries, high-level politicians and government officials, diplomats, scientists, economists, and business leaders united through a common concern for the future of humanity. It was founded in 1968 with the intention to be a global catalyst for change through the identification and analysis of the crucial problems facing humanity and the communication of such problems to the most important public and private decision. It attracted significant public attention with its report *Limits to Growth*, which has sold 12 million copies word-wide in more than 30 different languages, making it the best-selling environmental book in world history. More information available on the Club of Rome's own website at http://www.clubofrome.org.

Dalai Lama. (1999). *Ethics for the new millennium.* New York: Riverhead Book.

GABV. (2012, March). Global alliance for banking on values: Strong, straight forward, and sustainable banking. Financial capital and impact metrics of value based banking. Full report. March 2012. Downloaded May 15, 2013 from http://www.gabv.org/wp-content/uploads/Full-Report-GABV-v9d.pdf

Gardner, H. (1993). *Multiple intelligences.* New York: Basic Books.

Gardner, H. (2004). Changing minds: The art and science of changing our own and other people's minds. Boston: Harvard Business School Press.

Gebser, J. (1984). *The ever-present origin.* Athens: Ohio University Press. (Original work published 1949)

Gilligan, C. (1993). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press. (Original work published 1982).

GIIN (2013). Official website http://www.thegiin.org/cgi-bin/iowa/home/index.html

Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. New York: Bantam Books.

Goleman, D. (2000, March–April). Leadership that gets results [Electronic version]. *Harvard Business Review*, 78-91. Reprint No. R00204. Retrieved November 8, 2008, from http://harvardbusinessonline.hbsp.harvard.edu/b01/en/common/item_detail.jhtml;jsessionid=LOGBEON3PRTE2AKRGWDSELQBKE0YIISW?id=R00204&referral=7855&_requestid=42039

Gore, A. (1992). Earth in the balance: Ecology and the human spirit. Santa Monica, CA: Dove Audio Cassettes.

Gore, A. (2006). An inconvenient truth: The planetary emergency of global warming and what we can do about it. New York: Rodale.

Gore, A. (2010). Generation Investment Management official website, downloaded December 2010 from http://www.generationim.com/sustainability/investing.html

Gore, A. (2011). Climate of Denial [Electronic version]. Rolling Stones, June 22nd, 2011. Downloaded from http://www.rollingstone.com/politics/news/climate-of-denial-20110622

GRI. (2012). *Report or explain campaign forum* of the Global Reporting Initiative (GRI). Viewed May 9, 2013 at https://www.globalreporting.org/network/report-or-explain/Pages/default.aspx

GSIA. (2012). 2012 Global Sustainable Investment Review. Global Sustainable Investment Alliance (GSIA). Retrieved May 10, 2013 from http://gsiareview2012.gsi-alliance.org

Eccles, R. G., & Ioannou, I., & Serafeim, G. (2011). The impact of a corporate culture of sustainability on corporate behavior and performance [Electronic version]. *Harvard Business School*, working paper, November 25, 2011. Retrieved May 9, 2013, from http://www.hbs.edu/research/pdf/12-035.pdf

Ernst & Young & (2008): LOHAS. Lifestyle Of Health And Sustainability. Available at http://www.ey.com/Publication/vwLUAssets/Summary_LOHAS_June_2008/$FILE/Summary_LOH AS_June_2008.pdf

Esbjörn-Hargens, S., & Zimmermann, M. E. (2009). *Integral ecology: Uniting multiple perspectives on the natural world.* Boston & London: Integral Books.

Eurostat Unemployment Rate. (2013, April 2). *Euro area unemployment rate at 12.0%.* Retrieved April 2, 2013 at http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-02042013-AP/EN/3-02042013-AP-EN.PDF

Eurostat Overweight and Obesity. (2011). Overweight and Obesity: BMI statistics. Data from November 2011. Viewed May 1, 2013 at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Overweight_and_obesity_-_BMI_statistics

Friedman, T. (2005). The world is flat: A brief history of the twenty-first century. New York: Farrar, Stratus & Giroux.

Friedman, T. (2008). Hot, flat, and crowded: Why we need a green revolution and how it can renew America. New York: Farrar, Stratus & Giroux.

Friedman, T., & Mandebaum, M. (2011). That used to be us: How America fell behind in the world it invented and how we can come back. New York: Farrar, Stratus & Giroux.

Habermas, Jurgen (1992). *Postmetaphysical thinking: Philosophical essays*. Cambridge, MA: MIT Press.

Henderson, H. (2013). *Transitioning to the solar age: From „economism" to earth systems sceince.* Embargoed article received personally from the author via Email on March 2013.

Hoerter, D., Mader, W., & Menzinger, B., (2010). E.S.G. risk factors in a portfolio context, integrated modeling of environmental, social, and governance risk factors: An innovative study for institutional investors. Munich, Germany. Downloaded June 2010 from http://www.risklab.de/Dokumente/Aufsaetze/HoerterEtAl[10]-ESGRiskFactorsInAPortfolioContext.pdf.

Kahneman, D., & Tversky, A., 1982. On the study of statistical intuitions. In D. Kahneman, P. Slovic, & A Tversky (Eds.), *Judgment under uncertainty: heuristics and biases*. Cambridge: Cambridge University Press.

Kant, I. (1949/1993). The philosophy of Kant: Immanuel Kant's moral and political writings. New York: The Modern Library.

Kelly, E., (2010, August). Exercising leadership power: Warren Buffet and the integration of integrity, mutuality, and sustainability. Research article sent by author via Email on August 14th, 2010.

Kelly, E., (2010a, August). *An Application of developmental theory to Warren Edward Buffet: A mixed methods study*. Unpublished research article sent by author via Email on August 14th, 2010. Weir, D & Sultan, N. 2011.

Kelly, E., (2010b, August). *Exercising leadership power: Warren Buffet and the integration of integrity, mutuality, and sustainability*. Forthcoming book by Weir, D & Sultan (Eds.), N.

2011. From critique to action: The practical ethics of the organizational world. Cambridge scholars.

Kegan, R. (1982). The evolving self: Problem and process in human development. Cambridge, MA: Harvard University Press.

Kegan, R. (1994). *In over our heads.* Cambridge, MA: Harvard University Press.

Kohlberg, L., & Ryncarz. (1990). Beyond justice reasoning: Moral development and consideration of a seventh stage. In &. L. Alexander C. L., E. J. (Ed.), Higher stages of human development: Perspectives on adult growth (pp. 191-207). New York: Oxford University Press.

Krugman, P. (2009). *The return of depression economics and the crisis of 2008*. New York & London: W.W. Norton Company.

Kurzweil, R. (2005). The singularity is near: When humans transcend biology. New York: Viking Penguin.

Maslow, A. H., (1999). *Toward a psychology of being*. New York: John Wiley & Sons. (Original work published 1968)

Maslow, A. H., Stephens, D. S., & Heil, G. (1998). *Maslow on management*. New York: John Wiley & Sons.

Meadows, D. H., Meadows, D. L., Randers, J., & Behrens III, W. W. (1972). *Limits to growth.* (New York: Universe books).

Meadows, D. H., Meadows, D. L., & Randers, J. (2004). *Limits to growth: The 30 year update*. White River Junction, VT: Chelsea Green.

Mackey, J., & Sisodia, R., (2013). *Conscious Capitalism: Liberating the heroic spirit of business*. Boston: Harvard Business Press Review.

Mulcahy, D. & Weeks, B. & Bradley, H. S., (2012, May). We have met the enemy …. And he is us: Lessons learned from twenty years of the Kauffman Foundation's investments in venture capital funds and the triumph of hope over experience. Retrieved May 10, 2012, from http://www.kauffman.org/uploadedFiles/vc-enemy-is-us-report.pdf

Newberg, A. B., & Lee, B. Y. (2005, June). *The neuroscientific study of religious and spiritual phenomena: Or why God doesn't use biostatistics*. Zygon, 40(2), 469-489.

Naudé, W. (2009, January). *The financial crisis of 2008 and the developing countries*. Discussion Paper No. 2009/01. United Nations University, World Institute for Development, Economics Research. Downloaded on June 1, 2011 from http://www.iadb.org/intal/intalcdi/PE/2009/02547.pdf

Panwar, J., S. & Blinch, J. (2012, June 18). *The Sustainable Stock Exchanges: A Progress Report on progress*. Retrieved August 7, 2012 from http://www.unglobalcompact.org/docs/issues_doc/Financial_markets/Sustainable_Stock_Exchanges.pdf

Plinke, E., (2008). *Sustainability report: Sustainability and share performance – a long-running debate revisited*. Downloaded March 30, 2010 from www.sarasin.ch/internet/iech/fr/performancestudie_2008-2.pdf

Preqin (2012, May). Preqin special report: Venture capital. Downloaded May 15, 2013 from http://www.preqin.com/docs/reports/Preqin_Special_Report_Venture_Capital_May12.pdf

Randers, J. (2012). 2052: A global forecast for the next forty years. A report to the club of Rome commemorating the 40th anniversary of The Limits to Growth. White River Junction, VT: Chelsea Green.

Rio+20 (n.d.). *Voluntary commitments*. Retrieved August 7, 2012, from http://www.uncsd2012.org/voluntarycommitments.html

Sachs, J. D. (2008). Common Wealth: Economics for a Crowded Planet. New York: Penguin.

Sachs, J.D. (2012). The price of Civilization: Reawakening American virtue and prosperity. New York: Random House.

SDG (2012). The Sustainable Development Goals of RIO+20 is currently being further developed based on the *Future we Want* document downloaded on May 8th, 2013 from http://www.uncsd2012.org/content/documents/727The%20Future%20We%20Want%2019%20June%201230pm.pdf

Sisodia, R., Sheth, J., & Wolfe, D. B. (2007). Firms of endearment: How world-class companies profit from passion and purpose. New Jersey: Wharton School.

Stiglitz, J., E. (2010). Freefall: America, free markets, and the sinking of the world economy. New York: W.W. Norton & Company.

Taylor, J. B. (2009). *The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong*, NBER Working Paper 14631. Cambridge, MA: National Bureau of Economic Research.

The Global Compact. (2012, June 21). *Overview and outcomes: Innovations & collaboration, public policy recommendations, commitments to action*. Retrieved August 7, 2012, from http://www.unglobalcompact.org/docs/news_events/upcoming/RioCSF/RioCorpSustForum_Outcome_21June12.pdf?utm_medium=email&utm_campaign=2012-08-02+Non-GC+CSF+Attendees&utm_content=2012-08-02+Non-

GC+CSF+Attendees+CID_8a8c63fb54f4b4a291cd22346fea1f50&utm_source=Monthly+Bulletin&utm_term=executive+summary+and+report+on+the+Rio20+Corporate+Sustainability+Forum

The Economist. (2013, April 23). The Twitter crash. *The Economist*. Downloaded on May 14, 2013 from http://www.economist.com/news/finance-and-economics/21576671-hacked-tweet-briefly-unnerves-stockmarket-newscrashrecover

The Economist. (2013, May 13). Why have so few bankers gone to jail? *The Economist*. Downloaded on May 15, 2013 from The Economist, May 13, 2013

The IIRC. (2013). The Integrated Reporting Committee. Website http://www.theiirc.org

The Natural Capital Declaration (n. d.) Retrieved August 7, 2012, from http://www.naturalcapitaldeclaration.org/wp-content/uploads/2012/04/NaturalCapitalDeclaration.pdf

Tomorrow's Capital Markets (2012). Tomorrow's capital markets: A private invitation to work with tomorrow's company to set new incentive structures for a sustainable world. Paper downloaded May 9, 2013 from http://www.unepfi.org/fileadmin/documents/Tomorrow_s_Capital_Markets_web.pdf

Tachibanaki, T. (2009). Confronting Income Inequality in Japan: A Comparative Analysis of Causes, Consequences, and Reform. Cambridge, MA: MIT Press.

UN PRI. (2013). Overcoming strategic barriers to a sustainable financial system: A consultation with signatories on a new PRI work programme. Authors were requested to participate via Email on January 21, 2013, by the United Nations Principle for Responsible Investing (UN PRI). Document viewed again on May 15th at http://www.unpri.org/viewer/?file=wp-content/uploads/2013Strategicbarriersconsultation.pdf

US Overweight and Obesity. (2009). *The Surgeon General's Vision for a Healthy and Fit Nation Fact Sheet*. http://www.surgeongeneral.gov/initiatives/healthy-fit-nation/obesityvision_factsheet.html viewed May 15, 2013.

Vanderbeck, S. (2011). Satori Capital official website, downloaded May 2011 from http://www.satoricapital.com/philosophy.html

WHO. (2013). *Fact sheets: Chronic diseases*. Viewed May 15th, 2013 at http://www.who.int/topics/chronic_diseases/factsheets/en/index.html

WHO Obesity and overweight. (2013). Fact sheet N°311. Updated March 2013. Viewed May 15th, 2013 at World Health Organization website http://www.who.int/mediacentre/factsheets/fs311/en/

Wilber, K. (1998). *Marriage of sense and soul*. New York: Random House.

Wilber, K. (2000). Sex, ecology, spirituality: The spirit of evolution. Boston: Shambhala.

Wilber, K. (2000a). Integral psychology: Consciousness, spirit, psychology, therapy. Boston: Shambhala.

Wilber, K. (2000b). A theory of everything: An integral vision for business, politics, science, and spirituality. Boston: Shambhala.

Wilber, K. (2006). Integral spirituality: A startling new role for religion in the modern and postmodern world. Boston: Integral Books.

World Commission on Environment and Development (2009). *Our Common Future*. Oxford: Oxford University Press. (Original work published 1987)

Wymenga, P., & Spanikova, V., & Barker, A., & Konings, J., & Canton, E. (2012). *EU SMEs in 2012 at the crossroads*: *Annual report on small and medium-sized enterprises in the EU*, 2011/12. Downloaded on May 15th at http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2012/annual-report_en.pdf

Yazdipour, R. (Ed.), 2011. *Advances in Entrepreneurial Finance: With applications from behavioral finance and economics.* New York: Springer.

Zider, B. (1998). How Venture Capital works. *Harvard Business Review*. November-December 1998. Reprint number 98611. Pp. 131-139.

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