

TechCast Article Series

FORECASTS OF A NEW ECONOMIC BOOM IN 2015

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The constant drumbeat of cascading business failures is certainly daunting, but technology forecasts suggest that a green revolution, advanced auto designs, surging e-commerce, and other new business sectors are poised to lead the global economy out of today's recession, producing a new economic boom at about 2015.

We have poured trillions into reviving economic life and President Obama shows the temperament to lead. But in the rush to be practical, we have slighted the need for a guiding vision of a viable economic system beyond the one that is failing. We lack a clear understanding of what is taking place and what it means.

The financial meltdown is part of a larger "global crisis of maturity" – energy shortages, climate change, weapons of mass destruction, terrorism, and other yet unforeseen threats that are straining old systems to the breaking point. These are interrelated elements of a failing global order that increasingly looks like a train wreck in slow motion. If not sub-prime mortgages, some other flaw in today's economic system would likely have caused roughly the same failures. Just as the collapse of Communism resulted from an over-controlled planned economy, today's "collapse of Capitalism" is the result of an under-controlled market economy.

I lead a research team that forecasts the evolution of technology and its massive impacts that are changing the world. We've developed an intelligent website (www.TechCast.org) that pools the knowledge of 100 experts worldwide to forecast breakthroughs in all fields. Technology forecasts are especially useful because our collective "tools" form the economic foundations of the social order.

The relentless power of technology can be seen in the fact that the dot-com bust of 2000 didn't faze the Internet, which has now entered a more sophisticated "participative" stage of Web 2.0 sites, like Facebook and YouTube, and even the election of Barack Obama. Today's recession is but a

2-3 year dip as globalization continues to be driven on by the exploding forces of information technology. As Andy Grove, Chairman of Intel, put it so well - "Technology always wins in the end."

Our forecasts show that today's surging interest in green business should take off in four-five years, and governments are likely to take serious steps to curb global warming about the same time. Entrepreneurs are working on alternative energy sources – wind turbines, biofuels, nuclear plants, and solar cells. This entire "green revolution" is growing 30-50% per year, roughly the same rate of the famous Moore's Law that drives information technology to double every 2 years. Al Gore was right that the transition to sustainability could be made substantially in 10 years or so.

Because these complex issues are so intertwined, President Obama should use his political capital to invite major corporations and other governments to work together on innovative solutions. Green technology is roughly a \$500 billion market and expected to reach \$10 trillion in 2020, larger than autos, health care, and defense. In short, the present energy and environment mess actually offers a great opportunity in disguise. It may be that the resulting economic growth in a noble cause to protect the Earth could even defuse the race toward weapons of mass destruction and conflict as diverse cultures are more closely integrated into the global community.

Almost all sectors of the economy are likely to be rejuvenated with high-tech advances in roughly the same time frame. A new wave of green autos powered by hybrid, electric, and fuel cell engines should enter the mainstream about 2013 - 2018, and we are likely to see "intelligent cars" that may even drive themselves. So there are growth opportunities for automakers if Detroit can get its act together and make needed changes in corporate governance – just as financial institutions must do.

The information technologies driving globalization are gaining momentum as publishing, entertainment, virtual education, and other forms of e-commerce reach the critical 30% adoption level where new businesses usually take off. And the huge populations of China, India, Brazil, and other developing countries are moving in droves to PCs, the Internet, smart phones, and global media, for better or for worse. Our forecasts show that three-four billion people will soon inhabit a digital world that is smarter, faster, and interactive, creating online markets of several trillion dollars and forming a fine web of global consciousness.

The year 2015 seems to mark the serious beginning of all this innovation because it is the next inflection point in the 35 year cycles that roughly govern U.S. markets. The roaring twenties were the peak of a 35 year cycle that ended with the Great Crash and Depression. The Eisenhower boom of the sixties started about 1945 and was followed by the Reagan boom that began with his

election in 1980. Today's collapse marks the end of the Reagan 35 year cycle, and it is likely be followed by the "global boom" outlined above starting about 2015. The economy may recover its recent losses, but five-six years may be needed to begin a major new growth cycle.

These are enormous challenges, of course, so it's hard to imagine how they can be achieved in a world that celebrates power politics, money, consumerism, and self-interest. The 2008 financial crisis, however, is widely understood to mark an end to that era, and the outpouring of goodwill around the world for the Obama presidency signals the possibility of global support. Polls show that 70-80 percent of Americans are also united behind him.

Beneath the surface, deep rivers of fresh thought are bubbling up. Pollster John Zogby analyzed his data over the past 20 years to conclude "We are in the midst of a fundamental reorientation of the American character... Away from wanton consumption and toward a new global citizenry in an age of limited resources." Zogby finds that 18 to 29 years Millennials constitute the "First Globals." This "digital generation" accepts all races, genders, and cultures equally, and they are intent on living sustainably in a unified world.

This global megacrisis may not be catastrophic if acted on in time, but a major turning point seems inevitable as these multiple threats reach critical levels over the next decade. Global GDP is expected to double by 2020, increasing all these threats to the breaking point. We can no longer muddle through because the world is poised at the cusp of a great discontinuity – much like a teenager when thrust into the passage to adulthood. Whether a teenager shedding the baggage of youth to become a responsible adult or a civilization facing the imperative to form a mature, functioning society, the imperative is much the same – grow up or perish.

Things look bleak because that's the normal situation facing any system struggling through maturity, whether a youth or an entire civilization. The transition seems to possess a life all its own that is unfolding rapidly, and it is precisely because so many people are so deeply concerned that serious change is underway. The world has accepted women in power, transformed planned economies into free markets, begun to protect the environment - and Americans have elected a black president. Now the tough challenge of forming a sustainable, collaborative, intelligent global order lies ahead. Hardly a perfect world, of course, but a mature world that works.

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