

## THE VIEW

*“The distinction between past, present, and future is only a stubbornly persistent illusion.” - Albert Einstein*

We can often find some of the best wisdom in the simplest of phrases, and coming from one of the best minds in a century these nuggets can lead to thoughtful reflection that breeds more insight. This month's quote may say more about Einstein's philosophy and frame of mind than anything else. He clearly felt that through sheer persistence and hard work he could alter the 'illusion'. Einstein's stubbornly persistent illusion is our reality, though. It may be that we are stuck with a past, present and, at least intermediate, future that is fairly well mapped out for us whether we like it or not. On this score I'm referring to the current state of our economy and political landscape. However, we can reflect on what the future holds and in this letter we'll take a look at some of the back-of-the-news stories that may make it to the front page in 2010.

### **Sunspots?**

Low sunspot data and reduced appearances of solar flares over the last several years may lead to colder weather than

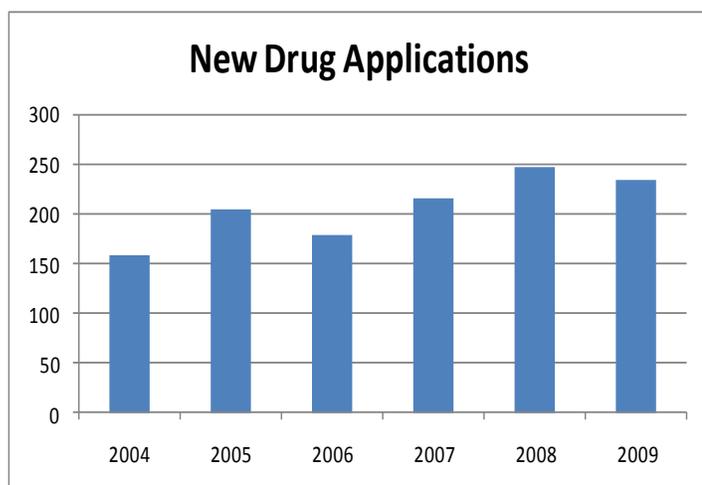
usual. We've had a low in sunspot data for a few years every decade over the last 30 years. Although we have not experienced an overall decline in global temperatures in the last two decades, the last few years have seen lower than normal data and more persistently low data. The last recorded significant reduction in sunspots observed by astronomers was in the mid to late 1600s (see [Maunder Minimum](#)). This period is referred to as the 'mini ice age'. Climatologists may argue over the cause and effect of these recent observations, but colder winters could lead to more crop failures in the future. Global warming anyone?

### **Health Research**

Major advances in cancer, Alzheimer's, arthritis, multiple sclerosis and many other maladies is nearing an event horizon. Admittedly, it is hard to handicap just where the next big breakthroughs will come, but they will come. It has been almost a decade since the mapping of the human genome and scientific research is

advancing rapidly. Our understanding of the brain and its function is among science's most complex questions.

Below is a chart of new drug applications since 2004. Drug approvals over the last few years have been low, but advances are only limited by the Food & Drug Administration's ability to properly vet each new application for safety and efficacy while the search for cure marches on.



### George Jetson and Nano...What?

[Nanotechnology](#) is rarely highlighted in the mainstream media unless you follow the technology in industry or at the research level in our country's universities. Maybe because it doesn't sell well to a public fascinated with Kanye West antics

on MTV or what movies made the Oscars this year. Nevertheless, we will all be hearing much more about 'nanotubes' and 'quantum dots' over the ensuing years because the technology is proceeding briskly. As recently as 2006, new advances in flash memory started to change the scene for consumer electronics. Now, we rarely think of the fact that we can carry an enormous amount of music or video in our small handheld gadgets which use flash memory.

Nanotechnology is pushing the envelope in electronics, chemistry, biotechnology and material sciences even further. Researcher Cary Pint at Rice University recently published an [article](#) highlighting his work of 'dry printing' carbon nanotubes onto just about any surface. This technology has important implications for the electronics industry and is only beginning to be understood with regard to a myriad of other applications. Life science companies are extremely interesting because they are bridging hurdles on nanobots that can find their way into neurological devices. The whole field can break wide open as ways to manipulate molecules and new measuring

instruments are devised. JANE ... where is my Referential Universal Digital Indexer?!

### **Populism Rises**

The October 1929 stock market crash was the beginning of a decade of strife we now know as the Great Depression. The market did not actually bottom until 1932, and, in one of a number of efforts to make sure the events of the time would not be repeated, Congress passed the [Glass-Steagall Act of 1933](#). The act was largely repealed in 1999, allowing banks to take on more market functions and blurring the lines between traditional banking and investment banking and proprietary trading. Today, almost a year and a half after the market selloff of 2008 (post Lehman Bros. collapse), the legislature is looking to reregulate the banks. The populist movement is gaining momentum as the general public voices its discontent with 'fat cat' bankers. Although I am no fan of what has transpired at the banks over the last several years, I believe that thoughtful and efficient reforms will better serve the people than 'sock-it-to-them' taxes or fees. The original bank act probably had it right

and a separation of the country's basic bank functions and payment system from other activities may triumph. The right thing may not be the *popular* thing, however. The rising populist movement in the country can be beneficial if channeled correctly and very harmful if it runs amok. Look for the movement to gain support in 2010.

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