

Posted to the Gilder forum - March 12, 2001

Abundance and Scarcity

The optimist	The glass is half full
The pessimist	The glass is half empty
The engineer	The glass is too big by half
George Gilder	The big glass is the defining abundance of the age. Waste it with glee!

Life is driven by energy. While the universe becomes more and more disorganized (entropy increases) islands of life absorb energy and decrease entropy locally. The economy is part of life. Humans drive the economy. Say's Law works, supply creates its own demand. That is not to be confused with the marketing saw involving better mousetraps and paths to doors. The economy is driven by supply which fills the demand it creates. Even if they are necessarily in equilibrium, they are not equal partners. Supply is the driver and demand is the follower. The only way to see this clearly is by breaking the supply-demand circle. Shut down the airports and you'll build huge queues of people who will not get to their destinations. The demand is there but it won't move anyone closer to where they want to go. To move people to their destinations you have to reinstate the supply of flights. In Soviet Russia there was a lot of demand for food but demand did not create a single loaf of bread. The West had to ship wheat to Russia so that they had something to bake.

Forget about the Telecosm and the bubble and the Fed and LAS-CDMA for a minute and listen to GG's basic message. Every age has a defining abundance and a defining scarcity. These are the drivers of the economy. In the Telecosmic Age the defining abundance are lambdas, bandwidth. There can be no glut of the defining abundance! Anyone who talks about bandwidth glut just plain does not get it. A glut is the temporary excess of some usually scarce resource. To give an example, in many industries (steel, lodging, aviation), you need to match production capacity to demand to keep costs in a reasonable range. Neither steel mills nor hotels nor airplanes were ever the defining abundance of the age. They are scarce and costly resources which, if they temporarily exceed demand, create a glut also

known as excess capacity.

There are certain resources which are abundant and which never exhibit a glut. Have you ever heard of a glut of ocean water? Have you ever heard of a glut of atmosphere? Being defining abundances they are not subject to exhibiting glut. I have often used the toilette as an example. Do you have a toilette glut in your house because you only use it for an hour or two a day? The storm sewers get used to near to capacity only when the occasional storm occurs. Is there a storm sewer glut the rest of the time?

Until recently, bandwidth was scarce and was subject to occasional over capacity, to glut, when temporarily supply got ahead of demand. But once bandwidth becomes abundant and cheap, to the point where you can gleefully waste it, there can be no such thing as a bandwidth glut. A scarcity will appear to use up this abundance. In the Telecosm, this scarcity currently is connectivity. People want to be hooked up at high bit rates to the Internet and the connections are not available, not for love and not for money. How many people have asked for cable, for DSL or for satellite only to be told that it is not available?

What is Barrons talking about? What is Kallas talking about? They are documenting a temporary imbalance between supply and demand of bandwidth. Since supply necessarily precedes demand, they see a glut. At the same time there are huge queues of people waiting for DSL, cable and fast satellite connections to the Internet. Did they mention this in their articles?

Neither life nor the economy are escalators to heaven. They are more like a mountain trail with lots of ups and downs. Just look at a long term stock market chart. The trend is up but there are lots of peaks and valleys. In life, think of the reign of the dinosaurs as a peak and their extinction as a valley. Still, life has progressed from single cells to mammals with the customary ups and downs. Don't expect anything different when looking at the Telecosm.

No matter how many ups and downs life has had, the drivers has always been energy and entropy. No matter how many ups and downs the economy has had, the drivers has always been supply and its twin, demand. George Gilder has captured the essence of supply and he calls it the defining abundance of the age. In every age, the defining abundance is the supply driving the economy. In the Telecosm

the defining abundance is bandwidth and bandwidth will drive the Telecosm. Bandwidth will change our life styles. Bandwidth will give us more choices of where to live, it won't have to be close to work anymore. Bandwidth already makes fora possible so that we can instantly exchange opinions on five continents, unthinkable just a few years ago, We all want bandwidth because bandwidth improves our lives and our lifestyles.

How accurate is GG in his stock picks? To tell the truth, I don't care! I don't subscribe to the GTR to buy and sell particular stocks. I subscribe to the GTR to hear about abundance and about scarcity and about the technologies that are driving them. When putting your money at risk, it is much better to listen to Lynch, to Buffett and to Moore than to listen to GG because GG listens to technology which is a long term economic driver while there are many short term ones like marketing and Greenspan. Technology creates the long term trend. Marketing and Greenspan add the noise, the wiggles on the long term chart.

Is this an admission that GG is a bad stock picker? Not at all. Have a look at the [GTI](#) kept by Dick Sears and you will see that, long term, GG is as a good a stock picker as any. But if you have a short term investment horizon, don't follow page 8 blindly. If you have a short term investment horizon you need to look at short term drivers like Greenspan, interest rates, analysts earnings estimates and CNBC. If you have a long term investment horizon, listen to technology, listen to the defining abundance of the age, listen to George Gilder

Denny

"Demand creates queues. Supply gets rid of them."

[Software Times](#)

subject: **Bandwidth changes lives**

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"Bandwidth will give us more choices of where to live, it won't have to be close to work anymore. Bandwidth already makes fora possible so that we can instantly exchange opinions on five continents, unthinkable just a few years ago, We all want bandwidth because bandwidth improves our lives and our lifestyles".

I returned to England from working in Boston last May, having spent 23 years working as a trader and financial analyst in both London and Boston. I had had enough of city living and hankered after settling down somewhere remote and close to the sea. The wonders of bandwidth have given me my dream. I now cover Asian financial markets for New York and London based financial services companies from a remote little town on the East coast of England. I live the telecommuter life and it's wonderful. It took me a little time to line up employers who would be happy to employ me outside the traditional office environment, but I've managed it. Slowly but surely employers are realising the real benefits of telecommuting. As my cost of living is 50% what it would be if I lived in London, I'm prepared to accept remuneration of about 60% what I'd expect if I worked in London. I take up no office space with all its inherent costs and I'm a darned sight happier and refreshed when I start work than I would be if I'd commuted into grid-locked London. As a result I produce far better work.

Thanks RED for the first hand confirmation!