Hello Everyone,

Most American have never heard the term "The Century of Shame." If you lived in China, however, it would be top-of-mind. The Chinese view the  $20^{\rm th}$  Century as humiliating for them. The Opium Wars, Japanese invasion, mass starvation, and even a military loss to Vietnam.

They believe that for 5000 years they were the center of power and civilization... and only since the Industrial Revolution have they been usurped. The desire to regain prominence drives Chinese policy.

Today's missive looks at one way China is attempting to get there.

I hope you find it interesting and mind-expanding.

Signed, Your China-Does-Not-Have-To-Be-Our-Enemy-But-They-Cannot-Be-Our-Friend Financial Advisor,

Greg

## KKOB 10.28.2019 China, 5G, & Invisible Digital Ink

**Bob:** So, Greg, today we are continuing with the "Cold War vs. China" theme---- and you believe the battleground is technology. Right?

**Greg:** I do. And a month or so ago I said I would address 5G; but then I got waylaid by the banking issues. So today, let's fold in some 5G with China, because the two are inextricably linked.

Also, some of what follows comes from a recent interview in the <u>Asia Times</u> by an analyst named David Goldman. Bob, he offered insights that made me sit up say, "Wow. So that's what's going on." Anyway, let's get started.

Despite what many Americans think, the Chinese are now building the best cell phones in the world. Additionally, they dominate the 5G Internet. So, how did they do it? Well, first the Chinese government subsidized tech giant Huawei. That subsidy helped bankrupt much of their competition. Then, Huawei hired 50,000 of the best-and-brightest foreign employees from the companies they bankrupted.

The result is they have mastered a communications technique called "quantum communications." And the best way I can describe it is the quantum system acts like disappearing ink. Oh, and before I go on, we have amazing secret stuff too, so don't think this is one sided—it's just I'm focusing on China in this series.

Anyway, if you interfere with the quantum signal in any way, the signal disappears. It's digital invisible ink. Or, think of this way...imagine someone unauthorized opens your mail and, as soon as their eyes see it, the letters disappear.

Bob, this technology is theoretically impossible to hack. And, if you can integrate this capability with the power of the 5G bandwidth, it's a whole new ball game.

**Bob**: But not being able to hack seems like a good thing to me. I mean, I'm tired of living in fear my bank account will someday just disappear. So, this technology actually sounds pretty good to me.

**Greg:** I get that. But let's view this in military terms. First, you must realize most US intelligence comes from intercepting electronic communications. For decades, Signals Intelligence (or SIGINT) has been a huge advantage for the US.

Now image that advantage gets flipped on us. They know more than we do...and they are hidden. We get very vulnerable...very fast.

Anyway, we are not blind to this. Two years ago, members of our intelligence community raised the alarm saying, "Look not only will Chinese advances in 5G & quantum communications push them ahead *technologically and economically*-----this will also adversely affect national security."

**Bob:** So, if we know this, what are we doing about it? I can't imagine we are just sitting around while this is going on.

**Greg:** We're not. But this is where government really needs private industry to help. The problem is this---there is debate inside the intelligence agencies regarding how to proceed. On the one hand, we want electronic invisible ink. But, with whom do we trust to work? Microsoft? Google? Facebook? Apple?

Do we do this in conjunction with our European allies? What happens as this technology spreads? Can we stop it? If it does spread, how will we monitor terrorist cells?

**Bob:** Wow. This is kind of mind blowing. I can see a huge shift in the balance of power based on who does this first and best.

**Greg:** Exactly. During the old Cold War, the battlefields were space and nuclear capabilities. Today, the battlefields are information & technology...because tech can render any modern weapon useless.

**Bob:** Wait. Before you go. Do the Chinese already have this capability? Or is it "on the drawing board" stuff?

**Greg:** Great question. We know they are using quantum communications over fiber optic. 5G is the next hurdle... this is where all that foreign talent comes in. Oh, and both SK Telecom (a South Korean firm) and Toshiba are working on the 5G angle as well.

**Bob**: So, this is why you think tech investing is far more fluid (and potentially less predictable) than most people think.

**Greg**: Yes. The potential for disruption is very high.

**Bob:** Got it. How do people reach you?

**Greg:** My number is 508-5550. Or go to my website at zanettifinancial.com

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