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## Dragon v. Tiger

[dimension states]

[graphic]

### **Summary**

*The US is a good place to live and work these days. Every day the media focus the world's attention on the continuing tensions between China and India. This has gotten scary at times, though it hasn't yet erupted into open conflict. As uncomfortable as it is to contemplate the two most populous nations in the world staring each other down, the U.S. has certainly benefited. The world's consumers want to be confident that they can get their goods when they want them and uncertainties in the supply chains coming out of China and India have opened new opportunities elsewhere. The U.S. economy has come back and is moderately strong. We are once again the global leader in a number of leading edge technologies. This has helped feed a virtuous circle as technology leadership has helped fuel the prestige of U.S. higher education, which has in its own turn further fueled the technological leads where they have emerged. Cyber security provides a clear example of how the perception of U.S. leadership has enhanced the ability of U.S. industries to attract customers in other areas. Effective leadership at the national level also helped put the U.S. on a path to solve its fiscal problems.*



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“I read the news today, oh boy/About a lucky man who made the grade...”

Well, I HAVE been lucky, I thought as I reached to turn off the alarm playing the remix of that ancient song. When I was growing up, everything was supposedly going downhill. The USA’s best times were long behind it. Massive debt seemed to doom the nation to fiscal disaster. Political strife rivaled pre-Civil War heights. Economically, the US seemed resigned to watching the rising Asian giants overtake it and render it irrelevant. And the entire world seemed in league to drag down American power and thwart all our aims.

As I staggered blearily over to the coffeemaker, I chuckled. How did a liberal arts major with no particular ambition end up as Chief Operating Officer of a large heavy manufacturing firm – much less an American one? Thank you India and China! Without the tensions that built up between them as they both vied for economic dominance and political and military influence, would the Americas have become a haven for investors who wanted to avoid the turbulence of the Straits of Malacca, the sabotage of Indian and Chinese facilities and shipments, the halting of freighters in the South China Sea?

Yes, we are truly blessed as a nation, I thought with a smile. Even when we do our best to destroy ourselves, someone shows up to save the day - in this case, two someones. We were lucky after World War II to be the sole industrial superpower. Imagine if, like China, we thought we were coming into our own as the new king of the hill, only to watch a peer arise to threaten our “inevitable” economic dominance. No wonder the Chinese are paranoid. They must think we invented the Indian economic miracle. No wonder the U.S. government spends so much time carefully trying to assuage the Chinese and keep strictly neutral – everyone thinks we are on India’s side. Now both countries’ economic growth has leveled off, leaving us still on top, barely, in terms of GDP, but far ahead in per-capita GDP. If they didn’t spend so much time harassing each other and running proxy wars like the one in Myanmar that the news guy is blathering on about, they might have both passed us up by now.

But there are other, more pleasant reasons why we are back on top. Our “Yankee ingenuity” and entrepreneurial national character turns out not to be all hype. And the convergence of technologies – information technology, genetics, nanotechnology, communications – mostly happened here, thanks to our infrastructure of venture capital and our universities – not to mention revitalized federal government research and assistance. The resulting “feeding frenzy” created entirely new industries that have altered everyday life and made the United States once again the place to be, economically. Throw in a political/military/economic standoff in Asia, and you get an

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English major running a high-tech manufacturing firm with facilities in Ohio, California, Brazil, and Venezuela.

Time to shove off for work. I got in my car and drove up to the freeway entrance and got into the queue for Automatic Control. I used to hate this, thought of it as a violation of my individual right to drive the way I wanted. Originally only available in California, I thought it would be just fine if this technology stayed there. Now I don't know how I could have stood for all that wasted time and energy and stress. I simply enter the on-ramp, program in my exit, and once the signal goes off, I can tune out for 20 minutes or so. I can read or watch the news or any video I want or even learn a language or fight with my ex or update my vlog.

Or, as usual in my case... start work early with a conference call or two. I log into the work system via retinal scan on my glasses-based graphical user interface (a Christmas gift from my ex before the breakup), and start going through my v-mail.

Oh, man. An important shipment has gone astray overnight. Some hotshot rookie from Harvard in the Logistics Department decided to save money and send it east through the Straits of Malacca.

I give the kid a call. "So do you want to tell me what you were thinking?"

"About what?"

"Come on. You know what. The shipment to the customer in Rotterdam."

"They told me it would cost half as much..."

"Of course it costs less to send it that way! Because you are taking a huge risk sending it through the South China Sea. There's a reason they use the word 'Shanghaied.' And there's a reason we ship from the East Coast to Europe. Because we want it to actually get there. Send another identical shipment, and this time, make it via the North Atlantic, okay?"

The kid was sheepish. Rookie mistake. Swore it wouldn't happen again. He got the message. Still, I'd have to trace what happened to that shipment when I made it into work. What was he thinking? I bet he was thinking about how his pay was tied to increased net income for the company, and how he would get a cut of the thousands he was going to save the company just for that one transaction. But it's not real savings if your risk profile goes up... as it clearly did in this case. These arcane programs that gave more autonomy to employees and pushed them to become more creative and watchful of



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the bottom line seem to have played a big part in bringing America back from economic stagnation; but they sometimes had unintended consequences.

Probably, I mused, the most important factors in bringing America back economically were the new graphical user interfaces that allowed the company to see what the employee was doing on-line at all times. At first there was a big outcry – this is invasion of privacy and so forth. But the upcoming generation of kids raised on tweets and on-line massive video games and social networking and such had a real problem with concentration. They tried to call it “multi-tasking,” but we all knew it was something more like attention deficit disorder. Surprisingly, almost all the kids who came to work for us took to the company’s policy of “company-data-stream-only while at work” like ducks to water. Maybe it wasn’t that surprising after all: it was set up sort of like a video game anyway, with instant feedback, instant gratification, and an aura of competition. It rewarded the best people handsomely and washed out the losers quickly and without any ambiguity.

One thing we’ve learned over the past few decades is how important it is to shut off irrelevant streams of information. With all the new, almost invisible graphical user interfaces, unless you have an unapologetically intrusive system like ours, it’s getting harder and harder to tell when an employee is surfing when they should be paying attention to their work. And accidents – it’s worse than drinking or drugs. Texting alone was said to have killed 100,000 Americans before they cracked down on that. Good thing more and more of us have queue-able cars like this one. And it saves on gas, which will be increasingly important if gasoline prices continue to climb. Even though all cars are (at a minimum) hybrids these days, the cost at the pump can add up.

I logged out of the company system and went back to my news and entertainment feed. I thought about logging into a political web site I used to follow just to get my blood pressure up, but it has been years since I could work up the rage to enjoy that, and judging by the flagging popularity of those sites, I was not alone. We had had a real near-death experience with the parties playing chicken while the economy swooned, states went bust, and demagoguery reigned. I think people just got sick of the extremism. I did, anyway.

Politics. Remember when your parents used to go crazy over liberals or conservatives or whatever? And they never noticed how they switched 180 degrees after every election. “Filibusters are evil! Whoops! We lost an election! They are sacrosanct and go back 200 years! Whoops! We won again! Time to consider the ‘Constitutional Option’ again! ‘Nuclear Option?’ No, that’s only when your side is thinking of eliminating filibusters!” With each cycle, the side in power got more vicious, and the other side could always claim that the side in power was the worst in history... until they got back in, and then



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they'd take it even further, but that was okay because it was all in the name of Good over Evil.

Then the fiscal crisis really started to bite, the economy started going down for the third time, some of the biggest states were defaulting, and some people began to miss meals, and that finally focused politicians' minds on some commonsense solutions. And, surprise! They actually worked. Just when we all thought America was done, things started coming back nicely, the extremists on all sides became a punchline to a bad joke, everyone calmed down, and the impending takeover of the world by China was shelved too, just like the impending takeover of the world by Japan 25 years earlier suddenly had faded for no apparent reason. And wouldn't you know it, all that rhetoric about the U.S. of A. being a uniquely resilient entrepreneurial society seems to have been true after all.

And I was very happy that the feds had been investing a boatload of my tax dollars in countering cyber attacks after the banking system was brought down on that Black Wednesday years ago, and no one seemed to know who had what amount of money for about a day and a half. The feds brought the system back on line in an unbelievably short amount of time, and now cyber security is one of our biggest national exports.

I surfed the web, oblivious to the traffic inching along outside. "Invest in Indonesia" – amazing how those guys play the Chinese off against the Indians – and us. They have really come a long way. All those smaller Asian countries are playing that game – Singapore, Philippines, Cambodia, Thailand, Malaysia, Bangladesh, and then there's the proxy war in Myanmar or Burma or whatever they are calling it this week. Glad it's not happening to me.

Vmail chimes: a proposal to switch some of our manufacturing to Africa; boss wants to meet about it this afternoon. I guess it's worth considering; Africa is doing pretty well these days, and they are still the cheapest wages around. But I did not get into this business to ship American jobs overseas. What, is it the 2000s again?

Retirement account ad pops up. Remember when the retiring Baby Boomers were supposed to bankrupt us? Boy, was that overblown – like that Y2K thing my dad talked about. A few tweaks here and there, a little above-average economic growth, and voila, the whole crisis disappeared. Nobody really talks about it anymore, about where our debt went and why we don't worry about it anymore.

News story on climate change – yeah, yeah, yeah. Another millimeter or two in sea rise last year. Wow, what does that do, take out a couple of extra sand castles on the Outer Banks? Okay, the weather continues to be strange. Like today – it's pretty uncomfortably warm for April. And hurricanes and storm surges have finally started to affect where people are choosing to live. The Midwest is even coming back a little! It's

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warmer than it used to be, and you don't have to worry about your house being blown to Oz by a hurricane. You know, I'm really tempted to wink on that beachfront property icon...but no, that would be stupid. I'd love to have a beachfront house, but that's way too much risk.

Kind of like shipping our high-tech cargo via the Straits of Malacca. What a mess. China thought it was going to take over; then it got old before it got rich, and with age it seemed to get paranoid. Or maybe it wasn't paranoid at all. India was suddenly there, young, chaotic, creative, entrepreneurial India, which was building out its own blue-water Navy and feeling its own oats. That must have been what Japan was thinking when it first saw China beginning to rise in the 1990s. At first they could not quite take seriously the notion of these dirty, poor, completely non-serious people ever being anything other than another market to be exploited. Then there comes the realization that maybe, someday in the distant future, they might be something to worry about. Then, impossibly quickly, you find yourself in a real economic dogfight.

And then the arms race began. China's growth was at first purely economic and nonthreatening, but then the U.S. pulled away from the region, due to our budget problems and the generally pacific tone of the Western Pacific. And then the growing Indian economy was able to afford a world-class military. And then the people from the smaller countries in the neighborhood, some of them already pretty wealthy (Thailand, Indonesia, Malaysia, Singapore), got anxious and started buying their own weaponry, and that started the U.S. arms industry right back up, just when they had been dumped by the Pentagon.

And we are part of that, I thought as the signal tone went off, I took my GUI off, and prepared to exit the freeway.

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I was hardly prepared for what awaited me when I arrived at the office.

"Jim," my boss said as I was settling in, "we've got an issue."

"What?" I asked. "This shipment that went missing, right? I'm on it."

"Yes," he said, then corrected himself. "No. It's a little worse than that."

"Worse? How?"

"Come into the conference room. We've got the State Department on the conference line."

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“What?”

We hurried into the conference room, and indeed, the video wall contained a pained-looking bureaucrat, and the top management team was all assembled around the table.

“What exactly was in this shipment?” the State Department asked.

“I don’t know if we are even legally allowed to tell you that, sir,” the CEO said calmly. “In any case, it was meant for a European customer. It was supposed to go to Rotterdam.”

“Not exactly,” the State Department official replied. “It may originally have been meant for a European port. But the end customer was, in this case, in Bangalore.”

“So what is the problem?”

“The problem, sir, is that this government has been painstakingly attempting to walk a tightrope between India and China for a long time now. Both of them are extremely paranoid about our intentions. But of the two, China is far more paranoid. They think we have a bias in favor of India; in fact, they have accused us of helping to arm the anti-Chinese faction in Myanmar’s civil war.”

“But what does that have to do with us?”

“Nothing, unless the high-technology components you were apparently inadvertently transferring to a Bangalore company with close ties to the Indian military included advanced anti-cyber capabilities,” the State Department official said.

There was a long silence.

“Could that type of technology have been included in the shipment?”

All eyes turned toward me.

“I don’t know,” I said after an uncomfortable moment. “I would have to check on that. I just got in. I’m not even sure where the shipment is, to be quite honest.”

“I can help you there,” the State Department official said, and the scene on the wall shifted to what appeared to be a cavernous meeting space with scores of delegates listening to a simultaneous translation of a speech by a Chinese delegate. I read the closed caption at the bottom of the screen and my heart sank.

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WE NOW HAVE INCONTROVERTIBLE EVIDENCE, MADAM SECRETARY, FROM THE INTERCEPTION OF A CONTRABAND FREIGHTER IN OUR HISTORICAL TERRITORIAL WATERS, THAT THE UNITED STATES HAS BEEN SHIPPING ADVANCED MILITARY EQUIPMENT TO THE INDIAN GOVERNMENT, FOR USE, WE BELIEVE, BY BURMESE REBELS...

I swallowed hard, and thought about our company's beautiful streamlined logistics, the super-mega-offshore ports of the east coast, and how convenient the North Atlantic was, and super-automated shipment tracking technologies. And then I thought about over-empowerment of employees, and about how nice it would be at that moment to be sitting in front of my beachfront property in a hurricane.





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**Characteristics Matrix**

<b>U.S. Economy</b>	<b>Strong</b>
<b>Nature of Disruptions</b>	<b>Traditional</b>
<b>Role of U.S. Federal Government</b>	<b>Substantial</b>
<b>Global Mobility</b>	<b>Hindered</b>
<b>Background</b>	<p>China and India have come into conflict over resources and markets; it is not open war, but includes wars by proxy and cyber war. The U.S. has remained above the fray in order to maintain access to markets, while supplying military, security, and cyber-security technology to both sides. We are still a huge market for both. Our leverage with China is economic; our leverage with India is as counterweight to China, diplomatically and militarily. We are viewed as a more reliable supplier of high tech exports, and as a safe harbor for investment. The Indian Navy counterbalances the Chinese PLA. [Myanmar proxy war (a la Angola) between China and India.] Chinese and Indian economies have been slowed a bit by the military (and cyber-war) rivalry between them. The U.S. plays them off against each other (a la U.S. vs. China/USSR; Egypt with USSR/USA). Global mobility has been hindered by the India-China rivalry: Indian boats are harassed in the South China Sea, the Straits of Malacca are challenged, Kashmir rebels supported by China, and the Indian Navy is allowed into Cam Ranh Bay.</p> <p>China invests in Pakistan’s infrastructure – “String of Pearls.” Vietnam sides with India. Claims on Spratlys, etc. China exercises its historic claim to the South China Sea. Different views persist of the maritime legal framework – UNCLOS, EEZs. Neither China nor India wants to slice the artery of the Straits of Malacca, but third party countries decide they want to re-route away from areas of contention.</p> <p>There are a lot of cyber attacks. China does not want to rely on U.S. blue-water Navy, so they are building their own blue-water navy. China and India are competing for needed resources. China no longer has a lock on strategic minerals. Both India and China have been moving west, toward the Middle East epicenter of instability.</p>

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	<p>The U.S. Naval presence was initially reduced in this area due to fiscal strains and it remains very low due to the India-China tensions. Our Navy avoids the South China Sea to remain above the fray and to avoid trampling on Chinese or Indian sensibilities. China and Taiwan have had a rapprochement, with stronger and stronger ties. Taiwan is not requesting our military presence, and Korea has reunified. The State Department, however, has increased its presence in East Asia.</p> <p>Pacific island nations are no longer as closely tied to U.S.</p>
<p><b>Global Stability &amp; Conflict</b></p>	<p>Global tensions are dominated by the China-India situation. China’s expansive interpretation of the Law of the Sea leads them to exert broader authorities in the South China Sea than other countries accept (as well as continuing pressure on disputed India-China borders). They confront ships, on the pretext of law enforcement, but do not cross the act-of-war line. The U.S. avoids sending Navy ships into the South China Sea in order to preserve neutrality. China has made a point of pursuing alliances across South and Southeast Asia, especially maritime alliances; this has led to mirroring responses by India. Vietnam is an Indian ally; Pakistan is a Chinese ally. Land-wise, both India and China are moving west into the Central Asian/Middle Eastern arc of instability and oil. (U.S. has concentrated more on Arctic and Brazilian oil and gas development.)</p> <p>There are fewer failed states because many are client states of either China or India. Latin America and the Caribbean are relatively stable; the U.S. is making the Western Hemisphere a substitute for former Asian suppliers. Our smaller Navy concentrates on our hemisphere. The failure of the populist movement in Latin America has also led to closer ties to the U.S., now no longer seen as the global hegemon.</p> <p>Russia is having difficulty controlling its own territory, and is losing control over southern oil areas and its Far Eastern interior - <i>see discussion in Europe (including Russia)</i>.</p>
<p><b>Global Governance</b></p>	<p>It has become more difficult to come to consensus on the international global commons, due to the India/China rivalry, but more nations are looking to global governance for answers. Overall, it is not a good environment for governance, but there are some bright spots. True global regimes are difficult to create and enforce.</p> <p>There are some “wild west” areas, especially in Central Asia. Many client states of China and India in Asia, Africa and elsewhere, however, are benefitting from the competition, and governance is improving somewhat</p>

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	<p>there, as well as in Latin America with its ongoing development. Middle East disputes have been muted, with extremism moving toward Central Asia. New seams in governance have developed with the economic power of the EU receding and Russia fragmenting.</p> <p>The Arctic is being exploited, fish stocks are on their way to collapse, and resources are under great pressure.</p>
<p><b>Key Global Actors</b></p>	<p>India, China, U.S., and Brazil are the economic powers, though the economic juggernauts of India and China have slowed as tension between the two has grown.</p> <p>ASEAN is important in its own right, and as proxy states in the India/China competition.</p> <p>The OAS has become much more powerful in the past couple of decades with Brazil as the leader and the U.S. as an observer member.</p> <p>China and India are permanent members of the Security Council of the UN, but the UN/IMO are not as effective as they used to be.</p> <p>International sea lines of communication are a problem in Southeast Asia, but India, China and ASEAN do not want gray hulls there (nor does Taiwan).</p>
<p><b>Status of Haves and Have-Nots</b></p>	<p>In the U.S. a rising tide lifts all boats, and many people are doing quite well; the middle class is gaining affluence. There are some people left behind through bad or inappropriate education and training, but overall this is a more equal world and one with more opportunity.</p> <p>Globally, the middle class has boomed, despite the hiatus in the extremely rapid growth in India and China.</p>
<p><b>Terrorism, Extremists</b></p>	<p>Some terrorist-like trade disruptions (suspected to be sponsored by India and/or China) persist, and there is piracy in the few remaining failed states as well as at strategic choke points. Overall, however, there is a low level of terrorism.</p> <p>Increased Indian and Chinese presence in the Middle East and Central Asia to assure oil supplies has caused some Islamic resentment to be redirected away from the U.S. and onto them (though China is tolerated more by Islamic groups than India).</p> <p>The Caucasus is a terrorism hotspot, with Wahhabist terror groups</p>

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	infiltrating. Russia seems to be losing control of its territory in the Caucasus.
<b>WMD/E</b>	<p>High tensions continue between India and China. The U.S. government is strong on anti-proliferation and security.</p> <p>North Korea has been absorbed into South Korea and the united Korea is friendly to the Chinese. There are no nukes on the Korean peninsula.</p> <p>Russia has tried to stay reasonably neutral, despite increasing Chinese corporate control of economic assets in Siberia. There is much concern about loose Russian nuclear material (some tactical weapons are unaccounted for). Russia has reinvested in strategic nuclear rocket forces, but also has grown closer to Europe.</p> <p>China is a close ally of Iran; Iran has not developed nuclear weapons.</p> <p>Pakistan is a strong Chinese ally, and retains its nuclear arsenal. This continues to be a source of India-China tension.</p> <p>There is a strong black market in all arms generally; loose nukes are a concern.</p>
<b>Global Crime</b>	<p>There are fewer outright failed states (though many corrupt dictatorships) or ungoverned areas. China and India use criminals as tools to advance state interests with deniability. Industrial espionage abounds in Asia. The U.S. stays on top of organized crime at home. "Life in the fast lane" fuels growing drug use in China and India – a "disease of affluence."</p> <p>India is also one of the major players in illegal pharmaceuticals.</p> <p>Russia exports organized crime. The Russian mafia has become a fixture in the Caribbean.</p> <p>Hindered mobility throughout Asia fosters smuggling – counterfeit goods, people, and drugs.</p>
<b>Global Markets</b>	<p>The U.S. is a leader in health care and medical innovation (pharmaceuticals, distance medicine, robotic health care). A technological feeding frenzy in IT, biotechnology, nanotechnology, remote bio-sensing, etc. has taken off in the U.S. The federal government is in partnership with the private sector on technology, especially in military applications. There is a productivity revolution <i>a la</i> the dotcom era, but on a much larger scale. Education is being revitalized by technology.</p>

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	<p>Other strong U.S. business sectors include manufacturing (and exporting) high tech products and components, military and security technologies, and cyber security, which is a big market due to Asian cyber wars. The military looks different than in 2010, with greater use of robotics and lesser forward deployments of the Navy. The U.S. is a stable, safe investment and New York has reasserted itself as the world’s financial capital. London has maintained some status, due to the UK’s continuing ties with U.S., but Frankfurt and Paris have faded somewhat, as has Shanghai to a lesser extent. Sao Paolo is an emerging financial center.</p> <p>Parts of Latin America and Africa are manufacturing centers, exporting to the U.S. (and others). India, China, and Brazil are major auto manufacturers.</p> <p>Fresh water is a key commodity for India, China, Middle East, parts of Africa, and Australia. (Siberia, Canada, Latin America, US-Canada Great Lakes, and Great Lakes region of Africa are now important sources of fresh water; there is pressure to use Arctic and Antarctic fresh water.) There are also fights over water in the U.S. The Ogallala Aquifer is tapped out.</p> <p>Oil and gas are important in this world, especially to China and India, but the U.S. obtains most of its oil and gas from Canada, Latin America, Nigeria, and the Arctic.</p>
<p><b>Global Trade</b></p>	<p>China and India have built out their navies, with the process expanding into a naval arms race. Conflict between China and India disrupts global trade through the greater South China Sea. China is starting to mandate permission to transit the South China Sea, subjecting ships to right-of-approach visits. India is protesting, threatening to escort with their Navy through the South China Sea. Cyber attacks, such as hijacking the other country’s ships remotely or spoofing the electronic buoy systems to run ships aground, are on the increase.</p> <p>The U.S. economy is reinvigorated, benefiting from the tensions between the Asian giants (neither is attacking the U.S., which is a coveted market). Latin America is a center of manufacturing (Brazil-led) for the Americas; some low-tech manufacturing has gone to Africa, prompted, in part, by maritime access between Brazil and the African continent. Some higher-value-add manufacturing is returning to the U.S. Brazil is the hub of Latin American development and trade.</p> <p>Some Chinese bulk, ore, and grain shipping is now going via the Northern Sea Route, but this is seasonal with unpredictable freeze-ups. Most traffic</p>

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	through Arctic waters is still bulk – e.g., oil and gas, minerals. Much Indian shipping goes west. Inter-Americas trade has increased.
<b>Energy</b>	<p>Oil prices have risen to about \$120/barrel, though slower than expected growth in China and India, new discoveries, technology, and development of alternatives has slowed the growth from what it might have been. Arctic developed of oil and natural gas has helped reduce dependence of the U.S. on the Middle East. We are also getting oil from Brazil and Africa, and there is investment in alternative energy sources, with some advances – no magic bullet, but enough to have an effect, in tandem with conservation technologies. Coal, wind, hydrokinetic, 4<sup>th</sup> generation nuclear, biofuels, and some renewables are in regular use.</p> <p>Rebuilt U.S. infrastructure adds to energy efficiency, not to the point that it fully compensates for increased demand, but the savings are non-trivial.</p>
<b>Natural Resources</b>	<p>India and China are grabbing all the resources they can, with disputes hindering global mobility. Most global fish stocks are on their way to collapse. High energy and commodity prices are the rule. There is some pressure emerging on the Antarctic Treaty (for water, minerals, other resources).</p> <p>China has lost its lock on strategic minerals; primary producers are now the U.S., Latin America, and Africa.</p> <p>The U.S. jealously guards its own EEZ and resources and attempts to act as an honest broker in international forums dealing with resources.</p>
<b>Environment</b>	<p>The environment has suffered, particularly as India and China deepened and accelerated their economic and political competition. Environment is not top of mind, with the military threat more pressing for them.</p> <p>E.g., in Howland and Baker, an unidentified fishing fleet ravaged the EEZ.</p> <p>Fisheries in Southeast Asia are distressed. Pollution in South China Sea is a serious problem. There is little ability to monitor or police the South China Sea, Malacca Straits, and parts of the Indian Ocean.</p>
<b>Climate and Weather</b>	<p>There has been no major change to the trend line of climate change. Climate change continues at the same pace at which it was proceeding for the previous few decades, but with no real crises resulting – some call it a “boiled frog” situation. The U.S. government has taken a major role in international forums to address all sorts of governance issues, but climate</p>

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	change is not top of mind in this world, with military conflict more of an immediate threat.
<b>Natural and Environmental Disasters</b>	<p>There have been several Chinese shipping incidents in Northern Sea Route including a grain ship that sank – but posed a minimal pollution hazard.</p> <p>There was a major collision in the Unimak Pass involving a Chinese vessel.</p> <p>A tsunami hit the northern California/Oregon coast.</p> <p>There are continued volcano, earthquake, and tsunami issues in Southeast Asia (Indonesia, Philippines, Vietnam) – and the shrinking U.S. Navy does not have the capacity to deliver soft-power humanitarian assistance (the Navy is more engaged in Africa).</p>
<b>Demographics</b>	<p>India’s demographics are very different from China’s: China is aging, while India has a huge population in its peak earning years. This further fuels the tension between the two countries. Some educated elite Indians and Chinese have come to the U.S. to get away from slowing economic growth and the sense of military threat.</p> <p>Immigration into the U.S. has ameliorated the age-wave/support-ratio crisis. The U.S. is now a majority non-white; the transition has been reasonably smooth. The expected debt-bomb disaster has not occurred.</p>
<b>Migrant Flows</b>	<p>Immigration from the south into the U.S. is slowing due to development in Latin America. Militarization of Asia has caused borders to be beefed up, increasing desperation in poor Asian countries, blunting economic development, and impeding trade. Urbanization has continued to ramp up along with economic development within developing countries, but has slowed a bit as the India-China standoff has cooled economic growth.</p>
<b>Human Health Issues</b>	<p>Health care is good; we have handled the entitlements trap. We are importing medicines from Canada and Mexico at pennies on the dollar. Distance medicine and telemedicine lower costs.</p> <p>In India, China, and the U.S. we are engineering our children for brains, looks, muscles, avoidance of health issues/diseases, and other desired traits. Long-term health care costs are going down. Cures for many diseases – dementia, some cancers – have been found. A proliferation of sensors helps early detection of disease.</p> <p>Old people are generally healthy well into their 80’s and spend much less</p>

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	<p>time in long-term care before passing.</p> <p>Some threat of spread of infectious disease still exists as U.S. citizens still have mobility travel-wise.</p>
<p><b>Education</b></p>	<p>There has been a resurgence of U.S. higher education, especially in high tech areas. The demand by foreign students for U.S. higher education has never been higher; this is one way the U.S. keeps open channels with both sides of the India-China divide. Though much of this is conducted as distance learning. The U.S. government is well aware of the power of this asset and parcels out visas (and cyber-visas to study on-line in American schools) with an eye toward the U.S. national interest.</p> <p>Thanks to federal educational initiatives, inner city parents know just as well as suburban affluent parents that their kids need to be educated for a high-tech world, so some are frustrated that the education their kids get does not prepare them. But there is more opportunity in general across the board than there was a generation ago.</p> <p>Unskilled workers tend to find work as robotics operators in manufacturing plants. These jobs are often modeled on video games popular with children a decade or two earlier.</p>
<p><b>Media</b></p>	<p>The explosion in media outlets results in a better-informed citizenry. Technology and transparency has resulted in a shakeout of many unreliable outlets; solid reporting makes a comeback. The last print paper went the way of the buffalo long ago, but the major, serious, solid, reliable brands are dominant over the less reliable celebrity-focused scandal “sheets.”</p> <p>Media aggregators still exist and are powerful – but increasingly in the form of aggregate TV, YouTube-type material, and rapidly evolving new forms of media. There are lots of whiz-bang applications, with cloud computing and ubiquitous sensors. Television as we knew it is long gone.</p> <p>Sporting events are the one live thing that draws everyone together – sports team owners provide the broadcast.</p> <p>Indian and Chinese media try to sway US public towards them with a blending of foreign policy, advertising, and entertainment. It has been in our government’s interest and corporations’ interests to appear to remain above the fray.</p> <p>Reactive censorship (in other countries) is faster and more effective as</p>

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	deemed appropriate. Self-censorship is more the norm in the U.S.
<b>Religion/Beliefs Values/Ideology</b>	<p>Government involvement in the economy is seen by a majority of people in the U.S. as necessary after whipsawing policy changes resulted in a series of shocks to the U.S. economy. Big U.S. federal government is okay now – federal government bailed out the states, and is in alliance with business to promote U.S. growth and especially jobs.</p> <p>There seems to be increased altruism among the millennial generation. Public service is valued. There is increased secularization. Educated elites are falling away from religion while the “have-nots” are joining more fundamentalist sects. The increasingly prosperous middle class is becoming less religiously observant as they become more affluent.</p>
<b>Nature of Business</b>	<p>Lots of partnerships exist between U.S. federal government and business for technology, research, development, infrastructure, alternative energies, security (especially cyber).</p> <p>Initially, there was a lot of corporate espionage originating in Asia; but the U.S. federal government has come up with cyber security technologies that protect U.S. business and government interests.</p> <p>There is a very competitive world business environment. But a stronger legal framework, patents, and IP protection in the U.S. compared to elsewhere attract investment and keep the U.S. first among equals in the world economy. Entrepreneurship is still strong in U.S. Our strong university system is also part of a government-business-academia triumvirate.</p> <p>The U.S. middle class is coming back, aided by the return of manufacturing, especially at the high end, to the U.S.</p> <p>World economic growth has flattened due to the Chinese and Indian rivalry. The U.S. is flying under the radar a bit, because its dominance of the world economy is still perceived to have ended long ago.</p>
<b>Information Management</b>	<p>The federal government is pushing IT as far and as fast as possible for weather prediction, etc. American corporations reap the benefits. There is generally good control over information. There are new interfaces, and good meshing of technologies, and government and business are able to integrate IT into other technologies. U.S. IT systems are favored over those from India and China because U.S. systems are more secure. There is not much fear of identity theft in the U.S.</p>

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	<p>Data delivery systems are good. New satellite systems for use in the Arctic are available for government and business use. Sensing technologies are more and more ubiquitous around the globe, aided in part by artificial intelligence advances. Agent-based models are increasingly available for decision-making in business and government.</p> <p>Robotics, automation, complete electronic records, and artificial intelligence are part of health care.</p> <p>Cables (undersea, overland) are feared to be vulnerable to Indian/Chinese sabotage/tapping.</p>
<p><b>Areas of Technological Innovation</b></p>	<p>A cross-fertilizing fusion among technologies occurs to some extent. IT; robotics; nanotechnology; miniaturization in general; communications; biotechnology; generation-after-next military technology (robotics and sensors and drones allow shrinkage of military, especially Navy); Internet (and what comes after the Internet); smart materials. The U.S. is at or near the top in these technologies.</p>
<p><b>Cyber Security</b></p>	<p>In the U.S., information appears secure; in India and China, far less so. We are perceived as the global leader in security systems, and export these systems to the rest of the world. The U.S. may be keeping the best cyber security technology for its government and military systems, however.</p>
<p><b>U.S. Economy</b></p>	<p>The American economy has come back from its early 2000s troubles, carefully repositioning to be in a good position to do well economically and politically. Chinese and Indian economic growth has slowed down, and the U.S. has opportunities we had not anticipated. The federal government has bailed out a number of bankrupt states, and has developed robust research and industrial policies.</p> <p>U.S. IP protection is better than elsewhere, providing a friendlier environment for entrepreneurs. It is less repressive than China, and is more transparent than India. It is seen as stable, tax-friendly for R&amp;D, and with a better chance to make money. The U.S. is exporting more than it used to, fueled by trade partners' desire not to rely on Asian trade routes. The U.S. is playing China off India, economically and politically. There is a strong U.S. defense establishment. The global community wants an increased U.S. presence to counterbalance India and China.</p> <p>Some high-value manufacturing has returned to the U.S. due to the risk of</p>

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	<p>Asian instability (Asian supply lines are seen as insecure). Some lower-skilled manufacturing has moved to Latin America. The U.S. and Latin America have resumed mining rare earth minerals to replace potentially unstable supplies from China.</p> <p>Defense and security are large drivers of the economy. Government investment in infrastructure has helped to drive the economy and set it up for prosperity. The federal government invests in basic technological research to set up next wave of innovation. We went through a bad time at first before the investments started to pay off.</p> <p>There are jobs in rebuilding and redirecting infrastructure (away from Asia, toward the south). Gulf states have especially benefitted. Tourism is a bigger industry in the U.S. and the western hemisphere, with Asia less stable.</p>
<p><b>U.S. Political Climate</b></p>	<p>The U.S. is seen more positively globally than it used to be, due to its reduced forward presence and the rivalry between China and India. China seen as neo-colonialist, simply interested in going after resources.</p> <p>The American public is generally doing fairly well economically, but is still bickering about social issues and “elitism” and the loss of American hegemony. We are strong, but we are not THE power in the world. We’ve had to change our trade routes and infrastructure.</p> <p>Federal government-funded research has fueled a technological boom. There was a huge population that was undereducated and unprepared for high-tech jobs. After the federal government bailed out states during the economic downturn, it forced them to comply with federal educational standards, which has improved things somewhat. There are still winners and losers in the U.S. Some segments of America are angry at their lack of advancement, even as the majority of Americans are doing quite well. The quality of preparation across American society is uneven. Overall, however, there is a sense of satisfaction among the populace. The middle class is no longer shrinking, and there is more opportunity than there was a generation ago.</p>
<p><b>U.S. Fiscal Status</b></p>	<p>The U.S. federal government had to bail out bankrupt states. There have been compromises reducing entitlement payments (Social Security, Medicare) that have alleviated fiscal stress. The federal government went through a difficult period at first, bailing out all sorts of entities, but also investing in basic research to seed future innovation. Strong investments in military and security (especially cyber security), robotics, sensing, remote-</p>

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	<p>operated vehicles, and other high technologies have paid off. The economy has rebounded and debt is being paid down. Health care costs have not been nearly as bad as expected due in part to technological breakthroughs. The nondiscretionary part of the budget is finally shrinking. The dollar is relatively strong.</p>
<b>U.S. Social Climate</b>	<p>More of the same, family-wise. Mobility is high; families are a bit more rootless, seeking economic opportunity – transplants, not transients; the outlook for the future is increasingly positive. Wealth stays in families more. Latin migration into the U.S. has slowed, with the development of Latin America and some improvement beginning in Mexico’s economy.</p> <p>The middle class has recovered a bit, which has eased social tensions, but there is still a sizable part of the population that has been left behind, and a segment that still resents America’s fall from absolute dominance. America has gone through a long-term adjustment to a reduced footprint in the world; there is a general if grudging acceptance of a multi-polar world in which the U.S. is influential but not dominant.</p> <p>Anyplace that land is cheap and plentiful is rebounding – Midwest, South. Gulf and southeast ports are booming. The Southwest is having problems with water shortages.</p>
<b>Status of Entitlement Programs</b>	<p>The economy is strong enough to support entitlement outlays, though they have been pared back. The expected entitlement disaster simply has not occurred. Documented immigrants are allowed in to help pay for senior benefits. Economic expansion has occurred due to technological advances and the U.S.’s rebound as the top economy in the world (thanks to India-China clash) supports the whole economy. A Grand Bargain has been reached between the generations, allowing for compromise on pensions and health care.</p>
<b>Transportation Infrastructure</b>	<p>The U.S. transportation infrastructure is in the midst of federally funded major modernization and upgrade, driven by changes in transportation needs and corporate interests. States fight over funding, but there is more of a top-down federal approach.</p> <p>Reshuffling of port infrastructure has been driven by changed trade patterns – Gulf Coast and Southeast ports are much more critical – and the need for greater capacity. There are more offshore deepwater ports in the Gulf for Latin American and African oil. More deepwater ports (Delaware Bay e.g.) for oil and LNG on east coast as well (to avoid dredging).</p>

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	<p>China high-speed rail has been built out; Chinese ports are super-advanced. U.S. top-down federal government solutions have been imposed for high-speed rail on east and west coasts.</p> <p>The process of building out rail hubs in the Southeast (and across America) is well underway. In general, there is a lot of infrastructure being constructed or improved in the U.S.</p>
<b>Canada</b>	<p>Canada is benefitting from the rejuvenation of the U.S. economy. It is still a traditional strong ally, and has few conflicts with the U.S. despite occasional flare-ups over energy and the Arctic. Canada is a resource superpower: fresh water, oil, gas, and agriculture.</p>
<b>Mexico</b>	<p>Mexico remains somewhat of a mess but is improving – it is a long road back. The trade disruptions across the Pacific in China and India have presented some expanded opportunity for low-cost manufacturing in Mexico. While a number of efforts to capitalize on these emerging opportunities failed due to structural problems in Mexico, successes are starting to occur with increasing frequency, which is lending optimism to those tracking the Mexican economy.</p> <p>The U.S. federal government controls the border, but is also partnering with Mexico, and investing in Mexican development. The border is less of an issue politically in the U.S., with a healthy US economy. Many people turn a blind eye to immigration across the border. Pressure to deal with the issue has waned.</p> <p>The drug wars have faded, but drug trade continues. Some drugs that used to come out of Asia now come from South America.</p>
<b>Central America &amp; the Caribbean</b>	<p>Cuba is developing rapidly, though on two opposing tracks. Tourism is booming, as Cuba is now fully open to U.S. citizens. Drug trade is emerging, however, controlled by the Russian mafia, which has used Cuba as a springboard to expand operations throughout the area. Crime has come in on the heels of the expanded drug activities and this has isolated prime tourist areas from other parts of the island.</p>
<b>South America</b>	<p>South America is generally doing very well. Oil exporters in particular have benefited from relatively high prices. In addition, Latin America has become a low-skilled manufacturing source as an alternative to Asia. Standards of living have risen across the continent. There is an increase in shipping to American ports.</p>

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	<p>Brazil is an economic and political power. It has benefitted directly from worries over the predictability of Chinese and Indian suppliers and security of the Asian trade routes.</p> <p>The violent drug wars have faded, as in Mexico, but the drug trade continues here too with early signs that the Russian mafia is eyeing this as the next fertile ground beyond the Carribean.</p>
<p><b>Europe</b>  <i>(including Russia)</i></p>	<p>The EU has weakened. They were not able to solve their entitlement problems. The euro is gone. There is no common foreign policy. Germany keeps close ties to China; France is in decline. Were it not for the rejuvenation of the U.S. market coupled with problems for Asian suppliers driving rising demand for European goods, the economic malaise in Europe would be substantially worse.</p> <p>Immigration pressure to European nations from Africa is slightly lessened; but the core ethnic-European population is declining, while the Arab-Muslim proportion has continued to increase with surprisingly little violence.</p> <p>Russia is benefitting from its Arctic resources, and from higher oil/gas prices, though some infrastructure has suffered from permafrost melting. Now, however, they are losing effective control of big chunks of their territory. This has been a consequence of the rising of Chinese business interests and migration in addition to high tensions with ethnic groups, Islam, and the declining “core Russia” population. Russia is also gradually losing influence in the southern oil region in Caucasus and the “Stans,” as well as of its indigenous peoples in the far east. It is now “Russia in name only.” Ethnic Russia is being pushed into the arms of the already-weakened EU.</p>
<p><b>China</b></p>	<p>The Chinese economy has slowed a bit due to increased military expenditures and a slump in exports due to supply chain security concerns. There is intense rivalry with India, economically and politically, but without regime change; the CCP is still in control.</p> <p>Internally, there is increasing discontent in the Western provinces. This has not flared to open revolution or overt moves for separation, but tension imposes another distraction to the CCP and another uncertainty to the outside world.</p> <p>The economic competition between China and India gradually became more strident and confrontational in tone. Eventually the product wars</p>

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	<p>began to take on an increasingly political overtone. Today China is adopting more and more policies that are, in effect, aimed pointedly at India. For example, China strongly asserts its territorial claims to the entire South China Sea, though few other countries support them in this claim. It exercises its “right to halt shipping in its territorial waters.”</p> <p>China has pursued a strategy to gain alliances around Asia (Thailand, Pakistan (Gwadar deep-sea port), Myanmar, Bangladesh). Taiwan has not been formally reunified, but for all intents and purposes it is part of China.</p> <p>China is ever mindful of resource needs, which continue as its economy continues to grow, though at a slower rate. On the energy front, it has cemented its ties with Iran and continues to curry favor with other major producers, especially Saudi Arabia and Kuwait.</p> <p>China’s pursuit of asymmetrical weaponry that can, e.g., cripple a U.S. carrier group has pushed the U.S. Navy away from the South China Sea. U.S. budget concerns and the reunification of the Koreas were also factors in this decision.</p>
<p><b>India/South Asia</b></p>	<p>India has boomed over the years as it raced to achieve essential economic parity with China. Its more youthful population and its more entrepreneurial culture have gone a long way to counterbalance China’s more centrally controlled economic system, and many see India as having the brighter future because of them. This is clearly threatening to China.</p> <p>The outlook for India would be very optimistic indeed, were it not for escalating tensions with China. The resulting trade disruptions have blunted growth of physical exports from India and political tensions have made potential cyber customers circumspect, lest they appear to be taking sides in the India vs China posturing. A perception that cyber security could be imperfect has exacerbated this reluctance.</p> <p>Militarily, the Indian Navy has achieved blue water status, and has a strong presence throughout the Indian basin. India is seeking allies to counterbalance Chinese alliances with Pakistan, etc.; Vietnam, Japan, and several other southeast Asian countries seem to be aligned with India more than with China. India is also in direct competition with the Chinese as it seeks relationships with the Saudis and other resource-rich Middle East and Central Asian nations.</p>
<p><b>Northern Asia</b></p>	<p>Korea, Japan, etc. want a counterbalance to China. Japan has remilitarized, and is aligned with the US and India.</p>

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	<p>The Korea reunified with Chinese intercession after the collapse of the North Korean regime.</p> <p>The U.S. Navy no longer has much of a presence in WestPac, due to the resolution of the Korea question, Taiwan’s closeness to China, and the sensitivity of U.S. warships being in close proximity to the tension in the South China Sea deriving from the China-India competition.</p>
<b>Southeast Asia</b>	<p>Tensions between China and India are the overwhelming consideration in economic as well as political decisions in the region. No country wants to be strictly tied to either side such that it incurs the wrath of the other. Australia wants to stay out of the India-China rivalry – there is too much at stake economically to be seen as partial to one side or another. Vietnam is pro-India, and also somewhat pro-U.S. ASEAN acts as a forum to keep the lid on India-China tensions, though most of its members are essentially aligned with one side or the other.</p>
<b>Africa</b>	<p>There are many client states of China and India in Africa. There are clear proxy-state tensions in Africa between the two. But there is some growth, especially in resource extraction. There has been movement of some cheap-labor-based manufacturing and industry to Africa. India has moved into Africa through low-end small cars, etc. In general, the opinion is that India invests, while China exploits.</p> <p>U.S. diplomacy and the U.S. military are engaged in Africa through AFRICOM. The African Union is a pan-African force for stability. While the Chinese are seen as plunderers, the U.S., like India, is seen increasingly positively, with long-term sustained help.</p>
<b>Middle East</b>	<p>Workers and technology (and tourism) come into Middle East from India and China; going out are oil, people, and investment capital. (46% of the UAE’s population was already Indian as long ago as 2010.)</p> <p>China is trying to pipe oil from the Caspian to China, but pipelines are mysteriously blowing up.</p> <p>Iran is tightly aligned with China, partly in response to having their security guaranteed by China. In return for China keeping Iran stable, Saudi Arabia, Kuwait, and other Arab regimes welcome Chinese involvement in Iran. Iran has not developed nuclear weapons (Chinese troops are in Iran as a “tripwire force”).</p>

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<b>Polar Regions</b>	<p>Melting of the Polar ice pack has continued unabated, but has not accelerated to the extremes that some had forecast. This has made extraction of underwater resources somewhat easier and less costly, which has been a boon, especially to Russian oil producers.</p> <p>The continued melting has also provided a gradually emerging shipping alternative, which has been especially helpful to the Chinese trade with Europe. The Northern Sea Route is now open for at least 4-8 weeks during summer. It is in use for bulk goods, particularly by the Chinese, who have managed to continue to expand their use of the route, despite several accidents.</p>
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