

The Outlook: September 22, 2017

Texas Instruments: standing in awe, and enjoying for a while

After all Outlook's remarks, the oil sector spoke for itself this week—and we investors will be glad to let it have the floor every single week, if it keeps talking like this. So let us turn aside, finally, from the oil business and instead stand in wonder at what Texas Instruments has done.

Texas Instrument, 10 Years: Dividends and Stock Price



The orange line is TXN's quarterly dividend, and it is hopelessly out of date as of today. The company announced a 24% increase, from 50 cents to 62 cents, effective next quarter. That number would literally be "off the YChart" above. (The chart provider doesn't update that fast.)

The pole vault is an intensely complicated track-and-field event, requiring great speed, strength, size and mastery of a very difficult, high-speed technique. Pole vaulters often reach their peaks in their 30's, precisely because it takes a long time and unmeasurable hours of practice to master the technique, while delivering all the speed and strength within one's potential at the same time. Like every technically-difficult athletic event, every once in a while along comes a "master," who is so good at every element of the vault that her competitors stand in awe and shake their heads. And a great many spectators, coaches and competitors make the mistake, while watching the "master" with amazement, of putting it all down to "talent," as in, "His talent is unreal. How can you compete against that?"

Something similar happens to us spectators when we see one of those rare companies which appears to be doing everything perfectly—so much better than its competitors that we shake our heads in awe and say, "This firm is head-and-shoulders ahead of its peers. How can anyone touch it?" That is certainly what we see in Texas Instruments today: a company which has placed itself in command of the global market for analog and embedded chips, the building blocks of the "Internet of Things" in which the world's

countless impersonal objects talk to each other and give us vital information about what's going on inside or near them. That Internet of Things, a "distant future" 10 years ago, is now coming to pass before our eyes, year by year. And perhaps the most striking example is the accelerating "brainpower" of cars and trucks . . . where Texas Instruments is emphatically in command.

The real point, of course, for the master pole vaulter and the master company, is that it's far less about talent than we suppose; and far more about very hard work, good judgment and the nerve to act on that judgment. The picture today looks fantastic; but the road there was the eternal road of determination, hard work, hard knocks and nerve.

Texas Instruments, earlier this year, presented the following table to investors, showing what it means to be an outstanding operator of factories:

Change in Cost of Chips as Factory Process Improves

	<u>Chip Built on 200mm wafer</u>	<u>Chip Built on 300mm wafer</u>
Sales Price of Chip	\$1.00	\$1.00
Chip Production Cost	\$0.20	\$0.12
Other Production Costs	\$0.20	\$0.20
Total Costs	\$0.40	\$0.32
Gross Profit Margin	60%	68%

During the Calamity of 2008 – 2009 and just beyond it, when the business world genuinely wondered just how long "Armageddon" might last, and whether any particular business could survive that long, Texas Instruments was buying chip-making factories and equipment from those of its peers who thought they might not survive that long, and were ready to sell their factories very cheaply indeed. Yes . . . nerve, good judgment, the determination to stick with the long-term game plan which said, "The Internet of Things is absolutely going to happen, and if we are bold enough and hard-working enough, this Calamity is giving us the chance to take the lead and never look back."

That's just what has happened, and the table above shows how powerful TXN's advantage has become. The company's cost of production leads its competitors, and the company's continual improvement of its factories means it stays in the lead—and expands earnings pretty tremendously. As Outlook has remarked in the past, operating factories is absolutely not something which "everyone" does well—any more than all those vaulters execute their technique at about the same level. Factory production is a very hard job—especially in the Tech business—and we often hear about companies stumbling as they try to excel within their factories, or even just keep up with most of their industry competitors. Not Texas Instruments. It has been excelling for a long time now—pretty much the entire 15 years, or so, since CEO Rick Templeton saw the future for embedded and analog chips, and forcefully directed his company down that new road.

Hence the chart at the top. It's not a good thing to be complacent—in the pole vault or investment worlds—but it is OK to stand in awe and enjoy what a Master is doing, for a while, and think about how it got there.

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