**Aquaculture and low hanging fruit**

In his widely acclaimed book ‘The Great Stagnation’ Tyler Cowen suggests that U.S. economic success has been based on access to ‘low hanging fruit’. In times past, fertile lands offered American settlers vast new opportunities in agriculture. The harnessing of fossil fuels to power newly invented machines created more opportunities and millions of jobs for energetic immigrants eager for the chance to live the American Dream. There was a coming together of natural resources, invention, human energy and the freedom to put new ideas to the test so that a young, energetic nation was able to build a country and an economy such as the world had never seen.

But that was the easy bit - ‘the low hanging fruit’. Today, our natural resources are exploited or protected. Inventiveness is alive and well, but inventions often mean doing the same thing better rather than making something new that generates new revenue, more jobs and economic growth. Though better education offers hope, we seem to have reached a ‘technological plateau’ that means we must reach higher if we are to go further. And while the internet has been transformational, it has moved us away from materialism and we are discovering that “whatever the virtues of that switch - it really, really hurts.”

I fear it betrays a one track mind but I couldn’t help thinking about the seafood industry when reading this. How, worldwide, we have fished for and benefitted from the low hanging fruit of natural fisheries. How, now we've reached the limit of what they will sustain, we've turned to aquaculture to meet our needs and how, in doing so, we’ve developed farms in the most accessible and easily farmed, natural bodies of water – the low hanging fruit. And how, from now on, it gets harder.

And it gets harder not just technically but politically. Whereas terrestrial farmers, years ago, bought, leased or homesteaded their land and got on with it, would-be farmers of the sea today need government permission just to begin; and approval from society in whose name government acts. And, as society has become comfortable with the wealth created from its past access to low hanging fruit, so it has become cautious about granting more access, and intolerant to the failures and averse to the risks that must be taken if we are to reach higher.

Learning how to farm in the ocean wilderness is such a reach. Covering 70% of the Earth, the oceans offer almost unlimited potential for a future [marine agronomy](http://www.foodsecurity.ac.uk/blog/index.php/2011/01/towards-a-marine-agronomy/) that would farm plants (seaweeds) as its primary crop to be used for food, feed and fuel, as we use terrestrial crops today. Such an industry could more than double our global output of farmed biomass while using only a small proportion of the oceans’ surface. It is higher hanging fruit that would provide real economic benefits, producing something we really need while creating millions of jobs.

With nine billion people to nourish by 2050, production of more food, feed and fuel seems like a pretty good bet for economic growth. That some of it might be done at sea without trespassing on more land, and without freshwater or artificial fertilizer, suggests that such growth might also be able to continue for a very long time. But, our present precautionary mindset prevents those with the energy and will to reach higher from putting their ideas to the test, as those who built this country were allowed to do when the fruit still hung low. Unless this changes, 'The Great Stagnation' will continue.

John Forster

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jforster@olypen.com