FDA has — after more than two decades of consideration — approved the marketing of genetically modified salmon in the U.S. As the NY Times reports, this decision has had push-back from the quarters you might expect . Says one critic: "This unfortunate, historic decision disregards the vast majority of consumers, many independent scientists, numerous members of Congress and salmon growers around the world, who have voiced strong opposition."

I blogged about this issue when the FDA issued its draft impact statement in 2012. My views have changed since then, but only in the direction of stronger supporter for the decision. First, any environmental risk seems very minor. As the Washington Post explains,

"The larger issue is the possibility of escape, important because escapees could outcompete or interbreed with native fish. AquaBounty says it has several layers of safeguards to prevent that: The fish are raised on land, in tanks, and the fish grown for food (as opposed to breeding) are all females, and sterile. The FDA calls the possibility of the salmon's escape 'highly unlikely,' and the possibility of their breeding in the wild commensurately unlikely." For interbreeding to be a problem, first the fish would have to get from the on-land tanks to the waters, then they would have to survive in waters that are too warm from them, then they'd have be among the few fertile fish that might be in the tanks, then they'd have to find males to mate with. And the hybrids would actually have to out-compete the wild salmon.

This is a very unlikely chain of events to occur independently. It's important, however, to also think about common failure modes when several safeguards might fail at once. Since the safeguards are physically unrelated, the only way they could be connected would be through carelessness on the part of the company. That's certainly a possibility to guard against. As we saw in the BP Spill, for instance, companies can make big mistakes, especially when they cut corners on safety in the interest of long-term profits. Still, with reasonable monitoring, the risk seems small, especially at this initial phase when the company has every reason to be on its best behavior so as to be allowed to expand in the future.

Against what seems like a fairly remote risk of ecological harm, there's also the potential for ecological benefits. I said earlier that my support for the GMO salmon has increased, and the reason is this possible benefit. We are massively overfishing the world's oceans. If we can expand the supply of fish from other sources, we can bring down the price for wild-caught fish and relieve some of the incentives for over-fishing. This kind of "supply side" measure, which tries to protect natural

resources by reducing the incentives for over-exploitation, is increasingly important. (I say more about this in a recent paper.) The facilities in question might also replace some less sustainable types of fish farms that are already in use. Overall, there’s substantial benefit for an environmental win here.