OP-ED CONTRIBUTOR
‘Peak Oil’ Is a Waste of Energy

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REMEMBER “peak oil”? It’s the theory that geological scarcity will at some point make it impossible for global petroleum production to avoid falling, heralding the end of the oil age and, potentially, economic catastrophe. Well, just when we thought that the collapse in oil prices since last summer had put an end to such talk, along comes Fatih Birol, the top economist at the International Energy Agency, to insist that we’ll reach the peak moment in 10 years, a decade sooner than most previous predictions (although a few ardent pessimists believe the moment of no return has already come and gone).

Like many Malthusian beliefs, peak oil theory has been promoted by a motivated group of scientists and laymen who base their conclusions on poor analyses of data and misinterpretations of technical material. But because the news media and prominent figures like James Schlesinger, a former secretary of energy, and the oilman T. Boone Pickens have taken peak oil seriously, the public is understandably alarmed.

A careful examination of the facts shows that most arguments about peak oil are based on anecdotal information, vague references and ignorance of how the oil industry goes about finding fields and extracting petroleum. And this has been demonstrated over and over again: the founder of the Association for the Study of Peak Oil first claimed in 1989 that the peak had already been reached, and Mr. Schlesinger argued a decade earlier that production was unlikely to ever go much higher.

Mr. Birol isn’t the only one still worrying. One leading proponent of peak oil, the writer Paul Roberts, recently expressed shock to discover that the liquid coming out of the Ghawar Field in Saudi Arabia, the world’s largest known deposit, is around 35 percent water and rising. But this is hardly a concern — the buildup is caused by the Saudis pumping seawater into the field to keep pressure up and make extraction easier. The global average for water in oil field yields is estimated to be as high as 75 percent.

Another critic, a prominent consultant and investor named Matthew Simmons, has raised concerns over oil engineers using “fuzzy logic” to estimate reservoir holdings. But fuzzy logic is a programming method that has been used since I was in graduate school in situations where the factors are hazy and variable — everything from physical science to international relations — and its track record in oil geology has been quite good.

But those are just the latest arguments — for the most part the peak-oil crowd rests its case on three major claims: that the world is discovering only one barrel for every three or four produced; that political instability in oil-producing countries puts us at an unprecedented risk of having the spigots turned off; and that we have already used half of the two trillion barrels of oil that the earth contained.

Let’s take the rate-of-discovery argument first: it is a statement that reflects ignorance of industry terminology. When a new field is found, it is given a size estimate that indicates how much is thought to be recoverable at that point in time. But as years pass, the estimate is almost always revised upward, either because more pockets of oil are found in the field or because new technology makes it possible to extract oil that was previously unreachable. Yet because petroleum geologists don’t report that additional recoverable oil as “newly discovered,” the peak oil advocates tend to ignore it. In truth, the combination of new discoveries and revisions to size estimates of older fields has been keeping pace with production for many years.

A related argument — that the “easy oil” is gone and that extraction can only become more difficult and cost-ineffective — should be recognized as vague and

irrelevant. Drillers in Persia a century ago certainly didn't consider their work easy, and the mechanized, computerized industry of today is a far sight from 19th-century mule-drawn rigs. Hundreds of fields that produce "easy oil" today were once thought technologically unreachable.

The latest acorn in the discovery debate is a recent increase in the overall estimated rate at which production is declining in large oil fields. This is assumed to be the result of the "superstraw" technologies that have become dominant over the past decade, which can drain fields faster than ever. True, because quicker extraction causes the fluid pressure in the field to drop rapidly, the wells become less and less productive over time. But this declining return on individual wells doesn't necessarily mean that whole fields are being cleaned out. As the Saudis have proved in recent years at Ghawar, additional investment — to find new deposits and drill new wells — can keep a field's overall production from falling.

When their shaky claims on geology are exposed, the peak-oil advocates tend to argue that today's geopolitical instability needs to be taken into consideration. But political risk is hardly new: a leading Communist labor organizer in the Baku oil industry in the early 1900s would later be known to the world as Josef Stalin.

When the large supply disruptions of 1973 and 1979 led to skyrocketing prices, nearly all oil experts said the underlying cause was resource scarcity and that prices would go ever higher in the future. The oil companies diversified their investments — Mobil even started buying up department stores! — and President Jimmy Carter pushed for the development of synthetic fuels like shale oil, arguing that markets were too myopic to realize the imminent need for substitutes. All sorts of policy wonks, energy consultants and Nobel-prize-winning economists jumped on the bandwagon to explain that prices would only go up — even though they had never done so historically. Prices instead proceeded to slide for two decades, rather as the tide ignored King Canute.

Just as, in the 1970s, it was the Arab oil embargo and the Iranian Revolution, today it is the invasion of Iraq and instability in Venezuela and Nigeria. But the solution, as ever, is for the industry to shift investment into new regions, and that's what it is doing. Yet peak-oil advocates take advantage of the inevitable delay in bringing this new production on line to claim that global production is on an irreversible decline.

In the end, perhaps the most misleading claim of the peak-oil advocates is that the earth was endowed with only 2 trillion barrels of "recoverable" oil. Actually, the consensus among geologists is that there are some 10 trillion barrels out there. A century ago, only 10 percent of it was considered recoverable, but improvements in technology should allow us to recover some 35 percent — another 2.5 trillion barrels — in an economically viable way. And this doesn't even include such potential sources as tar sands, which in time we may be able to efficiently tap.

Oil remains abundant, and the price will likely come down closer to the historical level of $30 a barrel as new supplies come forward in the deep waters off West Africa and Latin America, in East Africa, and perhaps in the Bakken oil shale fields of Montana and North Dakota. But that may not keep the Chicken Littles from convincing policymakers in Washington and elsewhere that oil, being finite, must increase in price. (That's the logic that led the Carter administration to create the Synthetic Fuels Corporation, a $3 billion boondoggle that never produced a gallon of useable fuel.)

This is not to say that we shouldn't keep looking for other cost-effective, low-pollution energy sources — why not broaden our options? But we can't let the false threat of disappearing oil lead the government to throw money away on harebrained renewable energy schemes or impose unnecessary and expensive conservation measures on a public already struggling through tough economic times.

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