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Ukraine and The World in The New Economic Reality

ISBN: 0-14-018531-4 HARDCOVER \$12.95

THE LIMITS TO GROWTH

The headline-making report on the imminent global disaster facing humanity—and what we can do about it before time runs out. "One of the most important documents of our age!"

—Anthony Lewis,
The New York Times



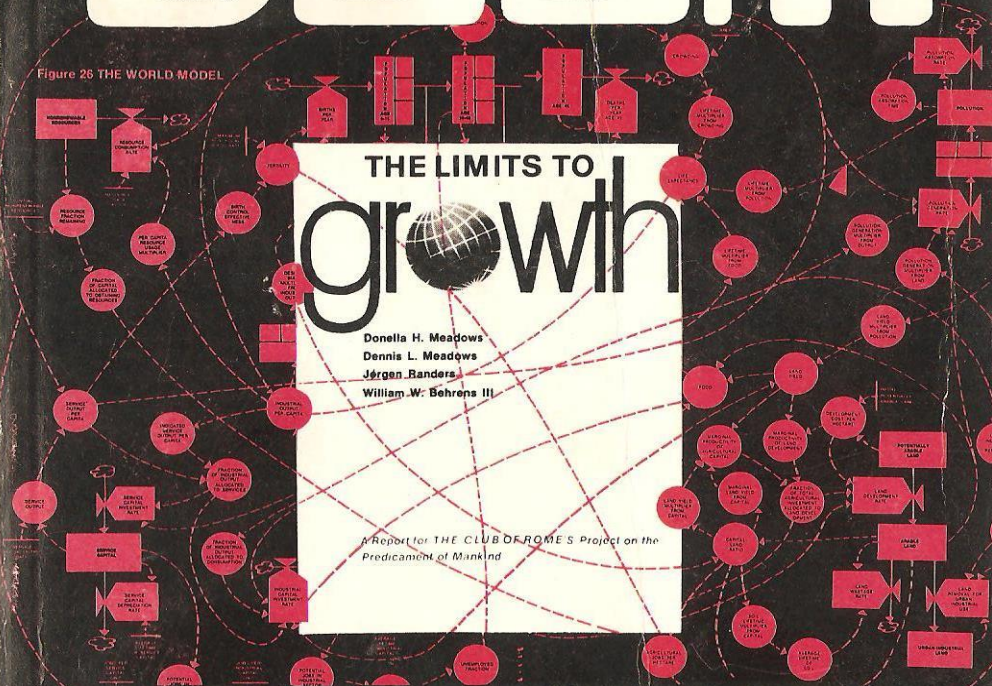
DONELLA H. MEADOWS/DENNIS L. MEADOWS
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 A POTOMAC ASSOCIATES BOOK

MODELS OF DOOM

\$2.95

Figure 26 THE WORLD MODEL



THE LIMITS TO growth

Donella H. Meadows
Dennis L. Meadows
Jürgen Randers
William W. Behrens III

A Report for THE CLUB OF ROME'S Project on the
Predicament of Mankind

A CRITIQUE OF THE LIMITS TO GROWTH

Edited by H. S. D. Cole, Christopher Freeman,
Marie Jahoda, and K. L. R. Pavitt
With a Reply by the Authors of The Limits to Growth

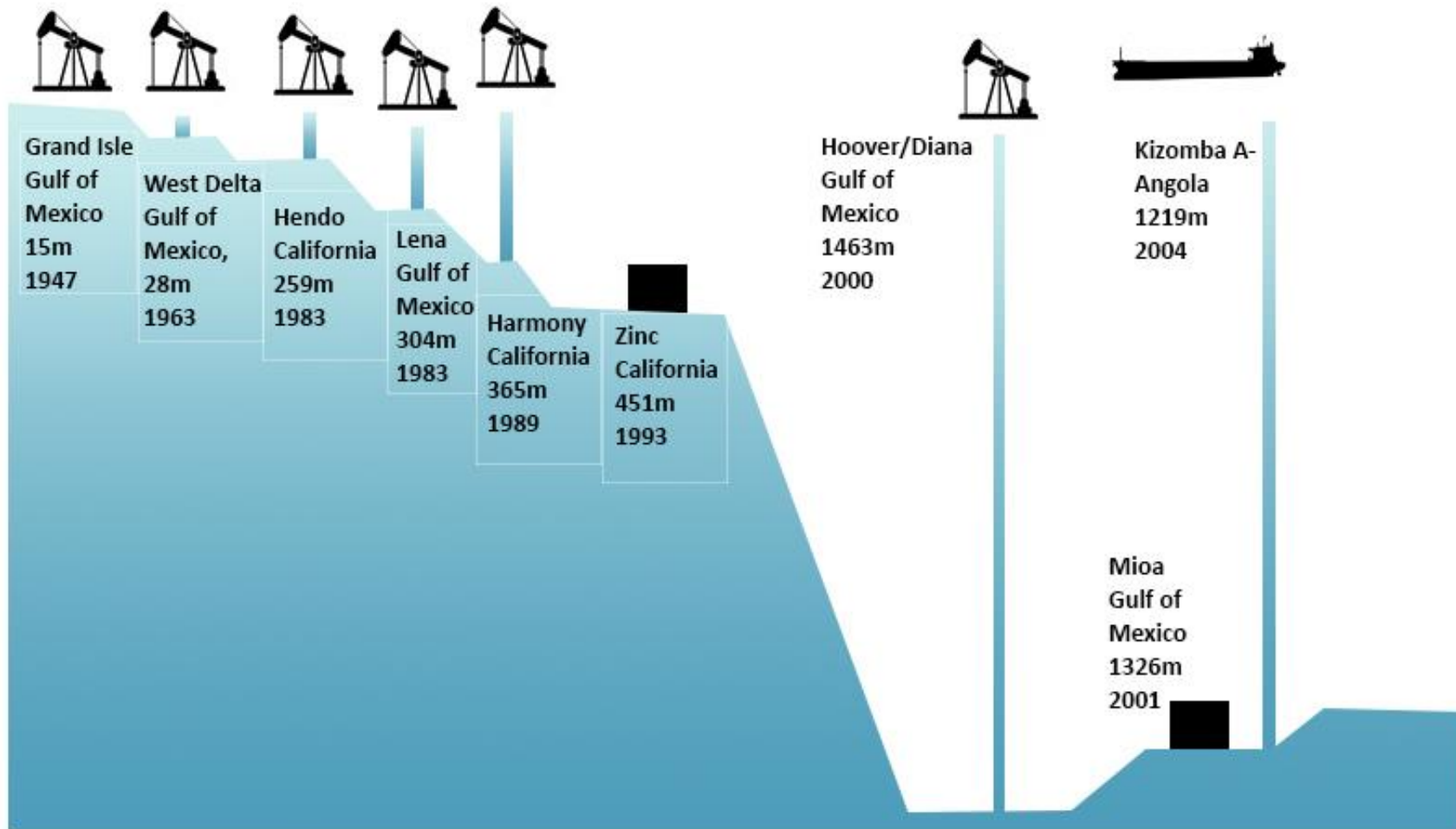
Some economic activities are subject to *increasing returns*: unit costs fall as volume of production increases. The more you produce, the cheaper each unit becomes. Economics becomes *an optimistic science*.

The combined effect of *technical change* and *increasing returns* Schumpeter called *historical increasing returns*. Example: MANUFACTURING OF ENERGY.

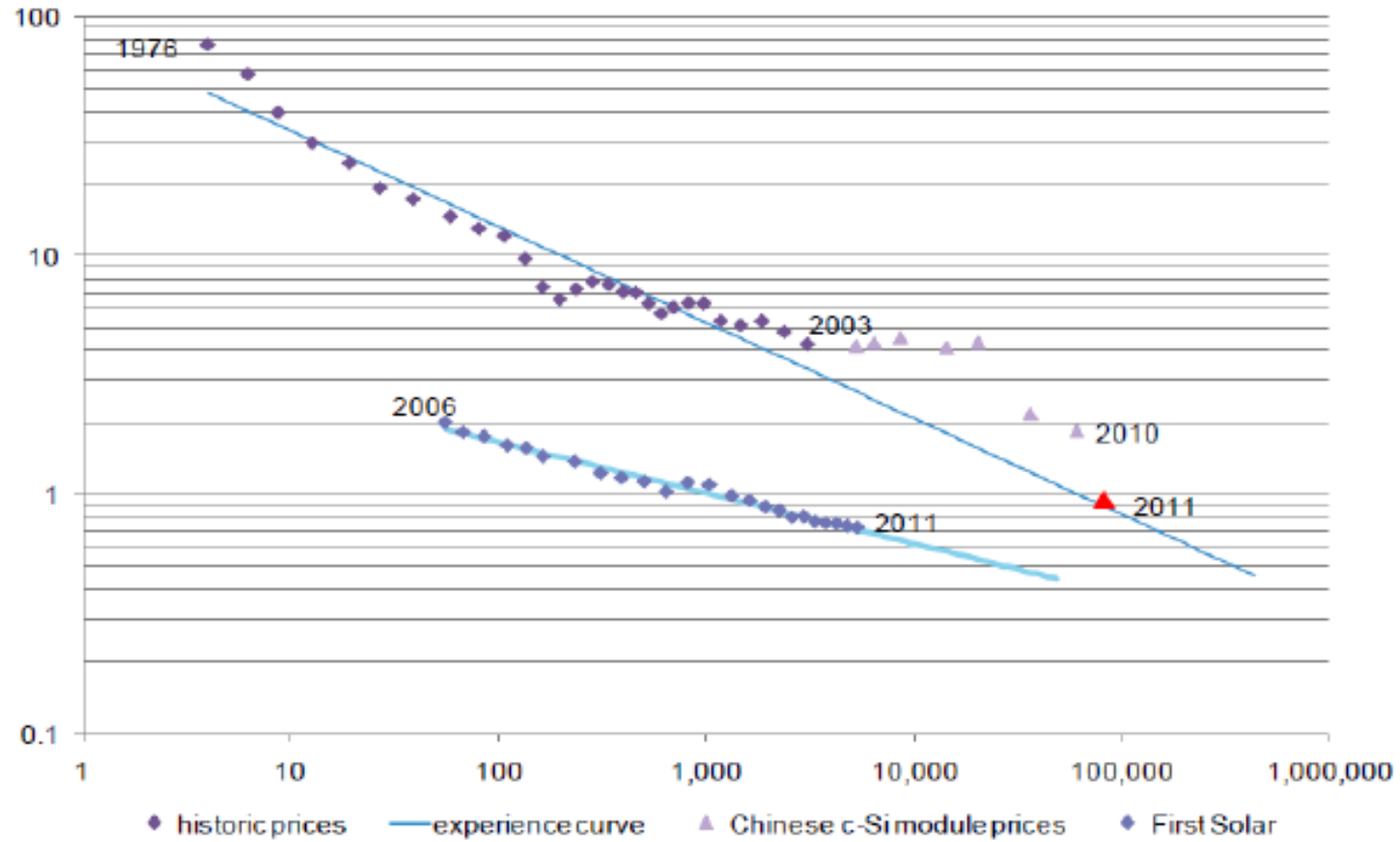
Other economic activities are subject to *diminishing returns*. The more you produce the higher the costs will be. Economics becomes a pessimistic (dismal) science. Example: EXTRACTION OF ENERGY.

Diminishing returns: Oil and gas.

Extraction is increasingly more expensive



Increasing returns: Cost reductions for solar photovoltaic power, 1976-2012



Growth or de-growth?

The cost of a 3 minute transatlantic phone call in 1927 was 15 Pounds, or 12,290 Pounds converted to today's average earnings.

Today the same thing (with video) can be done free on Skype

Is this:

- ✓ An example of creative destruction?
- ✓ An example of de-growth?
- ✓ A example of the stupidity of measuring GDP?
- ✓ All of the above?