

South Dakota State University
**Open PRAIRIE: Open Public Research Access Institutional
Repository and Information Exchange**

Economics Commentator

Department of Economics

10-25-1973

Signs of the Times: The Metric System Is Here

Robert J. Antonides
South Dakota State University

Arthur B. Sogn

Follow this and additional works at: http://openprairie.sdstate.edu/econ_comm

 Part of the [Agricultural and Resource Economics Commons](#), and the [Regional Economics Commons](#)

Recommended Citation

Antonides, Robert J. and Sogn, Arthur B., "Signs of the Times: The Metric System Is Here" (1973). *Economics Commentator*. Paper 30.
http://openprairie.sdstate.edu/econ_comm/30

This Newsletter is brought to you for free and open access by the Department of Economics at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Economics Commentator by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.



Economics Newsletter

Economics Department

• South Dakota State University

• Brookings 57006

• (605) 688-4141

No. 31

October 25, 1973

SIGNS OF THE TIMES: THE METRIC SYSTEM IS HERE

Nobody questions the advisability of using the \$1 as a basic unit of measurement. A dime or 10¢ is 1/10 of that. \$100 is 100 times the dollar. It is much easier than calculating that a British pound is so many farthings or pennies. The former is based on a decimal system of 10, while the latter is on a base of 60. It is obvious that in calculations it is easier to move a decimal point than it is to do a series of calculations to make the transition.

The United States uses both methods in different circumstances. In the case of money, we use the metric (10ths) system; in weights, we use the non-metric system (except for doctors and druggists who use the grams, kilograms, etc.). We have "short" and "long" tons; the former being the old English system, the latter metric. Pressure from international trade considerations has given much emphasis to a reconsideration of our dual system, particularly since Britain decided on a 10-year program of switching to the metric system in 1965.

The Congress passed a law in 1866 making the metric system legal, while the country continued as if nothing had changed. In 1875 the U. S. signed a "Treaty of the Meter" which officially adopted the system, with still nothing done to implement it. In 1972 the U. S. Senate passed legislation establishing a national goal of converting to the metric measurements within 10 years.

Today, the U. S. is the only industrial nation in the world not wholeheartedly accepting the system. Only

13 of the some 110 nations in the world are not committed to it. These include the small countries of Barbados, Burma, Gambia, Ghana, Jamaica, Liberia, Muscat and Oman, Nauru, Sierra Leone, Southern Yemen, Tonga and Trinidad.

Most housewives, on reflection, may be aware that we have been on a partial metric system for many years. For example, one brand of soup cans carries a label listing the contents at 10 3/4 oz. or 305 grams". Another company has its catsup marked at "20 oz. (1 lb. 4 oz.)" and on an adjacent label at "567 gr." Still another company lists one of its bakery products as "10 1/2 oz." on the front label but gives as its contents "207.6 grams" on its side panel in equal size print.

The ease of calculating with the metric system can also be demonstrated with the following example. If a metric ton of a product is worth \$160,000, then a kilogram is worth \$160 and a gram costs 16 cents. But if an imperial long ton costs \$160,000 you will need some time and usually a calculator or pencil and paper to determine the price for a pound to be \$71.43 and \$4.46 for an ounce.

Industrially, a very large number of firms have gone to dual specifications, those for production and sale in this country and those for sale in foreign countries. We even have several sets of bolt and nut threads within our own country.

Added to this is the confusion of trying to sell American-made products to

foreign countries when the two measurement standards are different, and to maintain two sets of supplies. The same applies to imports from foreign countries trying to sell goods in the United States. For example, witness the difficulty in past years of trying to get foreign import cars repaired, and foreigners have often been reluctant to buy our equipment for the same reason.

The metric system has only 7 basic units. The unit of length is the meter. The unit of mass (weight) is the kilogram. The unit of temperature is the degree Kelvin (Celsius or centigrade). The unit of time is the second; the unit of electricity is the ampere (with which we are all familiar). The unit of substance is the mole. The unit of light intensity is the candela. With these seven units, it is possible to derive all other measurements in the metric system. For example, area is measured in square meters, volume in cubic meters and density in kilograms per cubic meter (1,000 grams).

Great Britain listed as 2 main reasons

for going to the metric system: (1) It is much easier to move decimals to convert 100 centimeters to the meter than fractions of feet to a yard (2) Britain survives on foreign trade and should conduct its business in the same measures as the overwhelming majority. Our own Bureau of Standards some years ago, published a list of 85 different weights and measures currently used in the United States. The metric system eliminates fractions and conceivably could be a simpler system for our school children to learn.

The foregoing is not intended to influence thinking one way or another about the advisability of complete acceptance of the metric system or of its complete acceptance within the United States. However, it is not something to be "swept under the rug" and forgotten. From long observation by authorities and acceptance by many large business firms, the ultimate transition appears to be inevitable. It appears that the sooner we expose our people (especially children) to it, the easier it will be.

Arthur B. Sogn and Robert J. Antonides, Extension Economists

COOPERATIVE EXTENSION SERVICE
U. S. DEPARTMENT OF AGRICULTURE
SOUTH DAKOTA STATE UNIVERSITY
Brookings, S. D. 57006
OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101

