Comment on “Metallic Mineral Resources in the Twenty-First Century: I. Historical Extraction Trends and Expected Demand” by Alberto E. Patino Douce, in Natural Resources Research DOI: 10.1007/s11053-015-9266-z

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COMMENT

We agree with the author that metal consumption cannot be described as a logistic function of time, but disagree that we ever said it should be so modeled. Whether one uses a linear or a logistic function, direct use of time as a predictor of metal consumption does not make sense and provides little confidence in the predictions. The main purpose of this paper was to generate estimates of likely future demand of metallic raw materials.

Many studies show that metal consumption per capita is well predicted by GDP per capita because consumption has been shown to increase with increasing income, but levels off, or even declines with high income (Radetzki and Tilton 1990; Menzie et al. 2005; Singer and Menzie 2009, 2010; Jaunky 2012; Puchkov 2005). Thus, a short-term linear function of global consumption might seem to be a good predictor, but it ignores the leveling off or decline in consumption that occurs in the long term

as per capita income increases. A logistic function of per capita national metal consumption based on GDP per capita is desirable for predicting long-term consumption. There is persuasive evidence that per capita consumption of minerals levels off with higher per capita income, which is significant if one attempts to predict future demand of minerals.

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