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The Enhancement of Quality of Earnings through the Use of the Absolute Exchange Rate for Foreign Currency Translation

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Abstract: The study recommends the use of a price parity time series instead of exchange rates for foreign currency translation and proposes that the accounting policy change would enhance the quality of reported earnings of consolidated financial statements. Accordingly, the study proposes and describes the construction and use of price parity generated exchange rates for currency translation, alleging that such a series would be a better representation of absolute exchange rates than market-generated numbers. The case is presented through deductive processes and supported by existing theoretical and empirical studies in economics and accounting.

Key words: exchange rates; foreign currency translation; purchasing power parity; quality of earnings
JEL codes: A12

1. Introduction

When a multinational corporation, domiciled in the United States, owns more than fifty percent of the voting stock of a foreign subsidiary which maintains its accounts in a currency other than the US dollar, US accounting rules generally require the translation of the foreign currency into US dollars and the presentation of consolidated financial statements. Standard setting bodies and the accounting literature have seldom considered the possibility that the use of an alternative time series, other than the series of market-generated exchange rates, might result in a higher quality of earnings presentation in consolidated financial statements. The current paper draws on existing accounting and economics literature in support of the notion that such an alternative time series should be explored.

2. Purpose of Study

Therefore, the purpose of the study is to present the case for the development of a price parity based time series for foreign currency translation. Part of the argument is extracted from theoretical, seminal studies in economics and accounting and empirical studies comparing price parity based translations with exchange rate translations.

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3. Literature Review

In this section is presented an overview of the literature related to the concept of quality of earnings and the implicit nature of quality of earnings in research. The remainder of the literature review is not presented in this section. Instead, and by the nature of the study, descriptions and references of relevant works are provided where used in the appropriate phases of the logical argument. Especially relevant works are papers by Patz (1977, 1978, 1981, 2006), Officer (1982), and several empirical works by Holt from 2006 through 2014.

3.1 Quality of Earnings

The qualitative characteristics of financial information (FASB, 2008) present decision usefulness as the overriding objective of financial information, which in turn is supported by the fundamental characteristics of relevance and faithful representation. According to Financial Education (2015), quality earnings can be defined in several ways: as the ability of the earnings to predict future earnings and cash flows, earnings that reflect underlying economic effects, and earnings that are more conservative. Holt (2013) focused on the predictive value of the accounting quality of relevance and measured the degree to which earnings per share predict future earnings per share. The study observed that correlations between one year's earnings and the following year's earnings were often much higher than expected. A surprise was that the second prior year's earnings were a slightly better predictor of the current year's earnings than the immediate prior year.

Knechel et al. (2007) stated that earnings quality relates to the reasonableness of reported earnings. McClure (2015) indicated that "…high earnings are not as important as high-quality earnings: those which are repeatable, controllable and bankable." Revsine et al. (2005) used the term "sustainable". Some income statement elements are highly likely to reoccur in the normal course of operations from period to period. But other items, such as extraordinary items, generally do not reoccur from period to period, and are therefore not sustainable. Income smoothing reduces the quality of earnings because it makes it more difficult for users of financial statements to determine the sustainable earnings of a company.

3.2 Quality of Earnings Implied in Research

In numerous studies, earnings quality is implicit. The quality of earnings may not be mentioned in a study, yet be essential to the subject matter of the study. An exhaustive list of such studies is not possible, but representatives follow.

Pang and Kogel (2013) studied discriminant functions used to predict bankruptcies and produced new functions that were intended to give better predictions and minimize misclassifications. In a sense more general than that of this study, clearly earnings quality is a factor in the usefulness of bankruptcy prediction models. Warrad (2013) contemplated working capital as a measure of a company's efficiency and its short-term financial health, and as a critical component related to business survival and profitability. None of these factors can be adequately measured without a reasonable degree of earnings quality. Mihail et al. (2013) studied groups of investors and the methodologies applied to select financial investment products. Financial statements, including quality earnings reports, are always relevant in selecting investment products. Eriotis et al. (2013) analyzed and compared factors affecting dividend policy. Relevant to the study were payout ratios, financing ability, information content of dividends and the impact of taxation on dividends, all of which are supported and reflected by earnings quality. Liapis and Thalassinos (2013) analyzed accounting reporting of employee benefits between the International Financial Reporting Standards and Greek and US accounting standards with a view to a more accurate way of recognizing employee benefits in financial statements. In effect, it is a step toward better quality earnings related to

employee benefits. Holt (2006) empirically studied the variability of earnings across foreign currency translation methodologies, a study in pursuit of greater earnings quality. Holt (2012) likewise pursued higher earnings quality related to two short-term liquidity ratios.

4. Purchasing Power Parity vs Market-generated Exchange Rates

Patz (1978) observed that there is no thoroughly developed support for the use of exchanges rates for currency translation, and exchange rates are not associated in any clear way to accounting measures. There is no rigorous research that demonstrates that the use of exchange rates results in a superior earnings quality compared to other possible values. None of the exchange-rate based translation methodologies has been shown theoretically or empirically to be superior to the others under all circumstances. Patz suggested the problem may result from the use of exchange rates themselves.

In 1974, the Committee on International Accounting suggested the possibility that purchasing power parity (PPP) might be appropriate for foreign currency translation prior to the preparation of consolidated statements of multinational firms, indeed that such PPP constructs might be superior to exchange rates for the purpose. At the time the committee expressed this notion, no empirical accounting research had been done to make the comparison between PPP translation methodologies and exchange rates methodologies and to suggest an answer as to which is better for the quality of earnings. The committee was calling for discovery research to be performed.

Theoretical insights into the effects of using PPP numbers instead of exchange rates for currency translation were advanced in a small number of early research papers, cited elsewhere in the present study, and some few papers even presented fully developed translation methodologies based on PPP.

More recently, studies have stepped beyond the realm of theory into empirical inquiry. Because of the nature of foreign currency translation and the extensive data needed to perform such translations, empirical studies are quite limited, but the few which do exist bring accounting standard setting bodies and other accounting professionals closer to the answer to the committee's original question.

The PPP theory of exchange rates is summarized in the economics literature by Officer (1982) in three propositions:

(1) PPP is the principal determinant of the long-run equilibrium exchange rate.

(2) The short-run equilibrium exchange rate in any current period is a function of the long-run equilibrium exchange rate in the sense that the latter variable is the principal determinant of, and tends to be approached by, the former.

(3) The short-run equilibrium exchange rate in any current period is determined principally by the PPP, with the former variable tending to equal the latter.

The equilibrium exchange rate at a given point in time is the exchange rate at which the demand for a currency and the supply of the same currency are equal. At the equilibrium exchange rate, the price for exchanging two currencies will remain stable (The Free Financial Dictionary, 2014).

Temporary factors affecting exchange rates are always in play, a condition that continually adds to the variability of actual exchange rates. Thus, actual exchange rates are not likely to be equilibrium exchange rates. Under the PPP theory as described by Officer, PPP would moderate the effects of these temporary noise factors. This is a reasonable argument in favor of the use of PPP numbers instead of exchange rates for foreign currency

translation, but the argument is theoretical and is not acceptable in accounting standard setting without supporting empirical and normative research.

5. PPP Time Series Construction

There are a number of approaches to construction of a PPP time series. As a matter of practicality, for such a series to be used by accountants for currency translation prior to consolidation, the construction method should be time efficient. Patz (1981) suggested such a practical choice. The method described below is Patz's method, with a few modifications.

The price parity number as a given point in time is constructed as follows:

$$PP_t = PP_b(CPI_{tk}/CPI_{ts})$$

Where

PP_t = the price parity index for point in time t,

PP_b = an exchange rate assumed to approximate purchase power parity at the point in time b, a base point.

CPI_{tk} = consumer price index in the foreign environment at time t, standardized to base period b = 100, and

CPI_{ts} = consumer price index for the U.S. at time t, standardized to base period b = 100.

Ideally, the scalar PP_b is determined at the point in the time series where the actual exchange rate is free, or as nearly free as possible, from non-sustainable market factors. The scalar is calculated at that point by solving the first equation shown above for PP_b and replacing PP_t with the actual exchange rate observed at that point in time, as follows:

$$PP_b = ER_b(CPI_{ts}/CPI_{tk})$$

This calculation shown above must be performed for each point of time needed for the currency translation, although the scalar PP_b remains the same throughout the series. Foreign currency translation is a mathematical exercise in which measures scaled in a foreign currency are transformed into measures scaled in the domestic currency. It is not a remeasurement process, merely a restatement from one currency to another. Such a restatement should not introduce temporary noise factors.

6. Conclusion

The current study presents theoretical underpinnings and observations supporting the use of a constructed time series of PPP numbers instead of market-generated exchange rates for foreign currency translation. But additional research is needed to (1) strengthen our understanding of the relationship of PPP constructs with equilibrium exchange rates, and (2) to test PPP-based translation methodologies versus exchange rate methodologies against normative criteria relevant to the quality of reported consolidated earnings.

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