WHAT WAS THE MARKET VALUE OF DAIMLER DURING THE GERMAN HYPERINFLATION?

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The claim of Bresciani-Turroni that Daimler’s equity capital reached the equivalent of only 327 of their cars during the German hyperinflation has spread widely through the hyperinflation literature. There are two critical errors in Bresciani-Turroni’s calculation, and the minimum market value of Daimler in November 1922 was far lower, at around 94 cars. (JEL E31, G12)

If an economic “fact” is worth citing widely in journals (e.g., Barro 2006; Voθ 2003; Lee Tang, and Wong 2000; Orléan 1979; Schmölders 1975) and books (Faber 2002, p. 220; Feldman 1993, p. 606; Shulman 1980, p. 20; Fergusson 1975, p. 120; and Guttmann and Meehan 1975, p. 148), then presumably it is of some interest to economists. This widely cited “fact” is off by at least a factor of two and probably a factor of three. The German stock market was therefore damaged much more by the hyperinflation of the early 1920s than has been previously documented.

Bresciani-Turroni (1931, pp. 263–65) stated that: “at the beginning of November (1922) . . . this enormous drop in share prices caused some odd situations. For example, all the share capital of a great company, the Daimler, was, according to the Bourse quotations, scarcely worth 980 million paper marks. Now, since a motorcar made by that company cost at that time on an average three million marks, it follows that ‘the Bourse attributed a value of 327 cars to the Daimler capital, with the three great works, the extensive area of land, its reserves and its liquid capital, and its commercial organization developed in Germany and abroad’.”1 There are two measurement problems with his calculation.

1. Bresciani-Turroni does not provide a source for his text in quotes in either the English translation (1937) or the original Italian version. Therefore, it is possible that he is not the instigator of this claim.

2. First, the nominal value of Daimler’s equity in November 1922 was 196 million marks.2 Stock market prices were quoted as a percentage of par value in Germany at this time. The minimum price of Daimler quoted on the Berlin Börse during November 1922 was 1375% on the 17th of November, with an average price of 1,663% during the month.3 If we use the minimum share price (in marks) for Daimler’s shares we obtain a market capitalization of 2,695 million marks—almost three times as large a figure as that claimed by Bresciani-Turroni.

Second, offsetting this error is an even worse underestimate of the price of Daimler’s cars. From mid-1922 onwards Daimler fixed the price of their cars in $U.S. and adjusted the price in marks on a daily basis in line with changes in the exchange rate.4 I use Daimler’s official price lists for November 1922 from the Mercedes-Benz archives and collection, Umrechnungstabelle für Dollarkurse von 3 000–10 000 zur Verkaufs-Anordnung Nr. 197, Blatt 1–6, dated November 13, 1922, and issued by the Untertürkheim office. For each make and model of car, there is a price in marks that depends on the $U.S./mark exchange rate of the day. The prices in marks are such that the $U.S. price of each model is fixed, regardless of the daily exchange rate (e.g., the
Mercedes 28/60 PS six-seater Landaulet was fixed at $4,800 throughout November. Daimler sold five models of car, with 25 different makes (e.g., two seater, four seater, six seater, coupé). Because the sales of Daimler in November 1922 by make have not been recorded, I calculate the minimum price, the maximum price, and an equally weighted “average price” over all 25 makes.

The minimum market capitalization of Daimler, in $U.S., was on November 10, 1922. The minimum market capitalization, in $U.S., is relevant for Bresciani-Turroni’s claim because cars were priced in $U.S. at this time. I divide the market capitalization on this date, 2,960 million marks (or $386,000), by the minimum, maximum, and “average” price, respectively. Using the maximum price the market value of equity equals 70.8 cars, using the minimum price 145.5 cars, and the “average” price 94.0 cars. Bresciani-Turroni’s claim is off by a factor of at least two and probably three.

Daimler is not even an isolated example of the crash in stock prices during the hyperinflation. The value of Deutsche Bank dropped from $118.1 million in January 1914 to $3.4 million in November 1922, a drop of 97.1%, and greater than the fall in Daimler’s value (93.5%). Other large German corporations, such as Accumulatoren Fabrik AG (96.0%), Hamburg Amerika Linie (98.8%), and Siemens and Halske (94.4%) experienced similar declines in market capitalization. German stock prices were reduced far more by the hyperinflation than has been documented.

REFERENCES