



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

February 18, 2015

Via E-mail
Pablo Brizzio, CFO
Ternium S.A.
29, Avenue de la Porte-Neuve — 3rd floor
L-2227 Luxembourg

**RE: Ternium S.A.
December 31, 2013 Form 20-F filed April 30, 2014
Response dated January 30, 2015
File No. 1-32734**

Dear Mr. Brizzio:

We have reviewed your response and have the following comment. Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response.

1. We note your responses in your January 30, 2014, letter responding to our comment letter dated January 13, 2015. Based on your responses in that and previous letters, as well as supplemental documentation provided to us, we believe that an impairment of the Usiminas investment should be recorded at a date no later than September 30, 2014. We base our conclusion on several factors including: 1) the large discrepancy between the October 2, 2014, transaction price per share and the book value per share, 2) your acknowledgement in your letter dated January 30, 2015, of the lack of any entity specific factors, such as tax benefits or synergies, that may explain a difference between the fair value and value in use of the investment, 3) the premium paid per share over quoted market price of 82% in the October 2014 transaction appears consistent with the premium paid for the initial acquisition of shares, which is significantly lower than the percentage by which the carrying value per share exceeds the quoted market price per share, 4) the values under the "Recovery Scenario" and "Stagnation Scenario" (with no consideration given to a scenario in which projected cash flows could deteriorate further, i.e., a "downside" scenario) in the September 26, 2014, Board presentation, and 5) other responses in several of the letters provided to us including the discussion of key macroeconomic and industry indicators and decisions in your response dated December 17, 2014, that appear consistent with a diminution in value of your investment in Usiminas. Please tell us how you intend to measure the impairment, taking into account that the October 2014 arms-length transaction appears to provide objective evidence of value. Also tell us the period in which you intend to record the impairment and how you intend to report the impairment in documents filed or furnished with the SEC.

Mr. Brizzio
Ternium S.A.
February 18, 2015
Page 2

You may contact Al Pavot at (202) 551-3738 or the undersigned Accounting Branch Chief at (202) 551-3355 if you have any questions.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien
Accounting Branch Chief