



DIVISION OF
CORPORATION FINANCE

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

July 27, 2012

Via E-mail

Pablo Brizzio

Chief Financial Officer

Ternium S.A.

29, Avenue de la Porte-Neuve — 3rd floor

L-2227 Luxembourg

**RE: Ternium S.A.
Form 20-F for the Fiscal Year Ended December 31, 2011
Filed April 25 , 2012
File No. 001-32734**

Dear Mr. Brizzio:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

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. If you do not believe our comments apply to your facts and circumstances please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 20-F for the Fiscal Year Ended December 31, 2011

Principal Sources of Funding, page 71

1. Based on your disclosure on page 73 your financial covenants include a leverage and interest coverage ratio. To the extent that future non-compliance of any debt covenant is reasonably likely, in future filings please identify your financial covenants and the required ratio and your actual ratio.

Item 5. Operating and Financial Review and Prospects, page 53

2. You disclose on page 16 that Ternium's subsidiary Siderar has significant manufacturing operations and assets located in Argentina and a significant portion of its sales are made in Argentina and that Siderar's business could be materially and adversely affected by economic, political, social, fiscal and regulatory developments in Argentina. We further note that in 2008 that ANSeS became a significant shareholder of Siderar in 2008 as a

result of the nationalization of Argentina's private pension system. Given the uncertainty surrounding Siderar and the fact it has significant assets, in future filings please quantify Argentina's sales and assets so that an investor can assess materiality. Refer to ASC 280-10-50-41(b) and Form 20-F.T.Part I.Item 5.D. for guidance.

3. We note from page F-5 that you recorded a currency translation adjustment loss of \$433.3 million for 2011, however it is not fully explained on page 55 in your discussion of foreign currency results. In future filings please disclose the material components of the adjustment and the circumstances under which your income statement would be impacted.
4. We note from your income statement that interest expense increased 38% from 2010 to 2011 but current and long-term borrowings only increased 3%. We further note your disclosure on page F-43 that average interest rates increased from 3.29% in 2010 to 3.42% in 2011. Given these factors it is unclear why interest expense increased by 38% year over year. In future filings please provide a more comprehensive explanation of the contributing factors that impacted interest expense and please quantify the impact that derivative income/(expense) had on interest expense for each period presented.

Liquidity and Capital Resources, page 68

5. You disclose on page 14 that your ability to make dividend payments and other distributions could be restricted by legal, contractual or other limitations. In future filings please revise your liquidity and capital resources section to discuss the above and other material restrictions on your ability to declare dividends and the impact on your liquidity, financial condition and results of operations. Please provide the disclosures required by Rule 4-08(e) of Regulation S-X. Please also tell us what consideration you gave to the need for parent only financial statements under Rules 5-04 and 12-04 of Regulation S-X. As part of your response please provide your calculation that demonstrates whether your consolidated subsidiaries exceed 25 percent of consolidated net assets as of the end of the most recently completed fiscal year.

Item 11. Quantitative and Qualitative Disclosures About Market Risk, page 103

Foreign Exchange Derivative Contracts, page 105

6. Tell us and disclose in future filings your loss exposure under your foreign exchange derivative contracts. If your loss exposure is capped, please tell us and quantify the cap in future filings. Alternatively, if there's no loss exposure cap, please disclose this fact in future filings.

Interest rate contracts, page 104

7. You disclose that you entered “knock-in” swap agreements in Mexico. In future filings please provide a disclosure that explains “knock-in” swap agreements. Please show us your proposed future disclosure.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Tracey McKoy, Staff Accountant, at (202) 551-3772 or, in her absence, Al Pavot at (202) 551-3738 or, the undersigned Accounting Branch Chief at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/ Terence O’Brien

Terence O’Brien
Accounting Branch Chief