

Ternium S.A.  
Form 6-K  
September 08, 2008

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FORM 6 - K

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

Report of Foreign Private Issuer  
Pursuant to Rule 13a - 16 or 15d - 16 of  
the Securities Exchange Act of 1934

As of 9/8/2008

Ternium S.A.  
(Translation of Registrant's name into English)

Ternium S.A.  
46a, Avenue John F. Kennedy – 2nd floor  
L-1855 Luxembourg  
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or 40-F.

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12G3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):  
Not applicable

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The attached material is being furnished to the Securities and Exchange Commission pursuant to Rule 13a-16 and Form 6-K under the Securities Exchange Act of 1934, as amended.

This report contains Ternium S.A.'s press release announcing it plans to invest US\$4.2 billion in new flat steel plant in Mexico.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TERNIUM S.A.

By: /s/ Raúl Darderes  
Name: Raúl Darderes  
Title: Secretary to the Board of Directors

Dated: September 8, 2008

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Sebastián Martí

Ternium - Investor Relations

USA +1 (866) 890 0443

Mexico +52 (81) 8865 2111

Argentina +54 (11) 4018 2389

[www.ternium.com](http://www.ternium.com)

#### Ternium Plans to Invest US\$4.2 Billion in New Flat Steel Plant in Mexico

Luxembourg, September 8, 2008 – Ternium S.A. (NYSE: TX) today announced that it plans to invest a total of US\$4.2 billion over the next five years to build a flat steel plant in Mexico aimed at expanding its production capacity.

The project's initial phase involves the design and construction of a state-of-the-art flat-rolled mini mill in the Monterrey area, with a direct reduction unit, two electric arc furnaces, two ladle furnaces, a thin-slab-caster and a hot-strip mill, intended to produce two million tons per year of hot rolled coils. Ternium expects that this new facility will require a total investment of approximately US\$2.7 billion and will be in full production within the next four years.

The second phase of the project involves the construction of a cold rolled and galvanizing plant, including a pickling line and a cold rolled tandem mill with annual capacity of one million tons of cold rolled coils and a hot-dipped galvanizing line with annual capacity of 300,000 tons, to serve the industrial and commercial markets. Ternium expects that this second phase, to be completed by 2013, will require an additional investment of approximately US\$1.5 billion.

Ternium believes that demand for value-added flat steel products in Mexico will grow steadily in the medium term, driven by new construction and industrial development. With the additional capacity in Mexico, Ternium expects to support the anticipated demand growth in the region.

#### Forward Looking Statements

Some of the statements contained in this press release are “forward-looking statements”. Forward-looking statements are based on management's current views and assumptions and involve known and unknown risks that could cause actual results, performance or events to differ materially from those expressed or implied by those statements. These risks include but are not limited to risks arising from uncertainties as to gross domestic product, related market demand, global production capacity, tariffs, cyclicalities in the industries that purchase steel products and other factors beyond Ternium's control.

#### About Ternium

Ternium is one of the leading steel companies in Latin America, manufacturing and processing a wide range of flat and long steel products for customers active in the construction, home appliances, capital goods, container, food and automotive industries. With its principal operations in Mexico and Argentina, Ternium serves markets in the Americas through its integrated manufacturing system and extensive distribution network. The Company has annual sales of approximately US\$10 billion and ships approximately 8 million tons of steel products each year. More

information about Ternium is available at [www.ternium.com](http://www.ternium.com).

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