Ternium S.A. Form 6-K April 11, 2008

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 10/04/2008

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 ü 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 "Noü

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): Not applicable 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 2008 investor day presentation.

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/ Roberto Philipps Name: Roberto Philipps Title: Chief Financial Officer

Dated: April 10, 2008

Solomon R. Guggenheim Museum, New York April 10, 2008 Investor Day

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Forward-Looking Statements

This presentation contains certain forward-looking statements and information relating to Ternium S.A. and its subsidiaries (collectively, "Ternium") that are based on the current beliefs of its management as well as assumptions made by and information currently available to Ternium. Such statements reflect the current views of Ternium with respect to future events and are subject to certain risks, uncertainties and assumptions. Many factors could cause the actual results, performance or achievements of Ternium to be materially different from any future results, performance or achievements that may be expressed or implied by such forwardlooking statements, including, among others, changes in general economic, political conditions in the countries in which Ternium does business or other countries which have an impact on Ternium's business activities and investments, changes in interest rates, changes in inflation rates, changes in exchange rates, the degree of growth and the number of consumers in the markets in which Ternium operates and sells its products, changes in steel demand and prices, changes in raw material and energy prices or difficulties in acquiring raw materials or energy supply cut-offs, changes in business strategy and various other factors. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated, expected or targeted. Ternium does not intend, and does not assume any obligation, to update these forward-looking statements.

TERNIUM 1 Investor Day - April 10, 2008 3 08:30am Continental breakfast and registration 09:30am Presentation by Daniel Novegil, CEO 10:30am Coffee break 11:00am Q&A with Ternium's management 12:00pm Lunch

Event Schedule

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Source: IISI Committee on Economic Studies / Global Insight. 1CAGR: Compounded Annual Growth Rate. 2PPP: Purchasing Power Parity

> World Apparent Crude Steel Use (thousand tons) Steel Use Growing Worldwide

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• Worldwide capacity expansion not as strong as anticipated a year ago, and in some cases already slowing down (e.g. China):

> World Apparent Crude Steel Use (thousand tons) Source: IISI / Credit Suisse / Ternium

- Raw material availability
- Infrastructure bottle-necks
 - Environmental issues
- Engineering resources • High equipment costs & long lead times

Capacity utilization rates at record levels

Edgar Filing: Ternium S.A. - Form 6-K TERNIUM I Investor Day - April 10, 2008 8 Source: Clarksons (Panamax - 70000 dwt) Source: NYMEX

Source: NYIMEX Source: BMA / Ternium Source: Vale Iron Ore Pellet (US\$/ton) Natural Gas (US\$/MMBTU) Freight (US\$ thousand per day) Coal (US\$/ton) Key Input Prices on the Rise

TERNIUM 1 Investor Day - April 10, 2008 9 Cost-pushed Price-pulled Supply Driven Demand Driven Privatization Consolidation Source: CRU / WSD / Ternium * In constant US dollars (base April 2008) ** 2008 estimate assumes iron ore pellet and lump price increases of 87% and 66% respectively and coal increase of 200% Cost: Hot rolled band operating costs before overhead Apr 08: 915 Price Cycle & Cost Pressures HRC price vs. cost (US\$/ton)

TERNIUM 1 Investor Day - April 10, 2008 10 US crude steel production China's net steel exports US steel service center inventories US steel imports Source: IISI/MAR/Merrill Lynch Source: U.S. Imports Administration Source: MSCI Source: AISI

Key Industry Trends

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TERNIUM 1 Investor Day - April 10, 2008 12 Source: Ternium / Corporate Websites Sidor Hylsa IMSA Ternium's total steel shipments (1) (finished + semifinished steel in mtpy) Top players in Latin America (2007 finished steel shipments (1) in mtpy) Siderar (1) Imsa included from Jan 07. Shipments from U.S. assets sold to Blue Scope are not included.

Ternium's Leadership in Latin America

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(1) Imsa included from Jan 07. Shipments from U.S. assets sold to Blue Scope are not included.

Strong Market Share in Fast Growing Markets

Shipments by region

(million tons) Source: Ternium

Ternium's Network

+58%

Ternium's Markets * Coated steel

TERNIUM 1 Investor Day - April 10, 2008 14 Impact of 2008 raw material price increases on cash cost of produced slab Iron ore supply (2007 in mtpy) Source: Ternium

• One third of Ternium's iron ore needs is provided by its own iron ore mines in Mexico.

• Three quarters of Ternium's crude steel production rely on natural gas instead of coal.

*** self-sufficiency

*** ***

Ternium's Relatively Low Exposure to Raw Material Price Increases

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• Centralized & lean functional organization facilitates know-how and best practice sharing, accelerates learning and experience curves, and provides economies of scale and scope.

• Strong focus in IT & IS (Visual Flash tool, unified SAP, etc.)

• Flexible business model and experienced management team allowed integration of

Ternium Mexico in record time. Planning & Operations Argentina Mexico Venezuela Gua. USA North Center South International Procurement (Exiros) IT & IS HR Engineering Steel Procurement **Business Units Production Units** Ternium's Business Model

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TERNIUM 1 Investor Day - April 10, 2008 17 Industrial Market share in Mexico (flat steel) Commercial Ternium's shipments in Mexico (tons) Ternium Mexico's production capacity Source: Ternium Integration of Ternium Mexico strengthens leading position in Latin America

TERNIUM 1 Investor Day - April 10, 2008 18 • Local slab sourcing in Mexico, minimizing logistics costs Average operating conditions (million tons per year) Source: Ternium * Slabs & Billets Ternium Mexico's Semifinished Steel* Balance

TERNIUM 1 Investor Day - April 10, 2008 19 Source: CRU

World Apparent Crude Steel Use

(US\$/tons) Slab-HRC Spread

TERNIUM 1 Investor Day - April 10, 2008 20 - Mills specialization - Procurement & logistics - Management reorganization — Working capital reduction — Marketing consolidation Larger runs, dedicated mills, rationalization of attributes, higher efficiencies • Pre-tax synergies estimated to be US\$200 million per year in the medium term: Improved purchasing through Exiros, efficiencies arising from the supply chain management system Lower head count, decrease in administrative & general expenses and simplified legal & accounting structure Unified marketing effort, better use of distribution channels Reduced inventories, credit receivables optimization Source: Ternium **Integration Synergies**

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TERNIUM 1 Investor Day - April 10, 2008 23 Includes investments under study (e.g., CRC and HDG in Argentina)

Capacity Expansions

(million tons)

Capex Plan

(million US\$) Source: Ternium Capex Plans (organic growth)

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Iron Ore Reserves Projection

(concentrate equivalent million tons)

Iron Ore Mines Source: Ternium Expanding Our Mining Footprint in Mexico § Current reserves at 130 million tons, representing approximately 30 years of production at current rates. § New exploration plan targets 260 million tons of total reserves at a budget of US\$38 million.

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- Regional leadership, strong market share in fast growing markets.
 Cost advantages relative to competitors.
- Logistical advantages (short lead-times, lower freight rates, duty exemptions).
- High vertical integration, from iron ore mines to service centers.
 - Experienced management team with successful track record.
 - Sound financial position.
 - Growth potential:
- Organic expansion aligned with market growth and market share goals.
- Balancing productive structure and enhancing value added (greenfield).
 - Pursuit of strategic M&A opportunities.
 - Conclusions: Strengths & Growth Opportunities

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