

# Steel

## New Era or new Cycles for the 21st Century

Steel Business Briefing

### **SBB Steel Markets Europe Conference**

Marcel Genet  
Laplace Conseil

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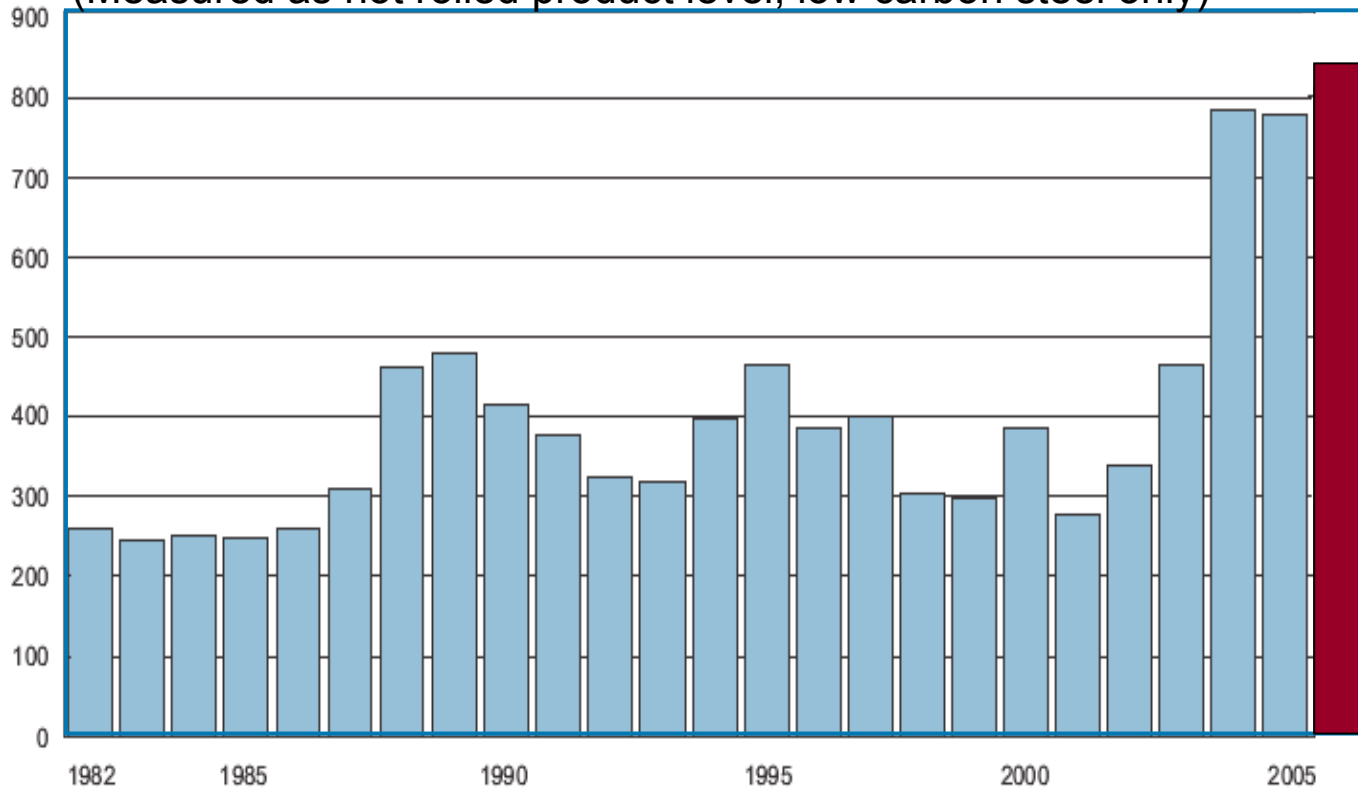
# Steel past fluctuations are not « cyclical »

- Steel cyclicality is a “lazy concept” with little or no predictive use since the events that have triggered past “cycles” are not recurrent nor causally connected.
- Steel past fluctuations were due to major independent macroeconomic events :
  - First oil shock of 1974; End of the European Glorious Thirty
  - Second oil shock of 1979 : Iranian revolution
  - Collapse of the Soviet Union in 1992
  - Asian Crisis of 1998 in the rapidly growing tigers economy
- Steel current boom is largely due to China emergence as a global power eager to build its infrastructure and serve as the workshop of the World.



# Steel has experienced « minor » waves compared to today's « tsunami »

**Estimated value of world steel production 1982 - 2006e (US\$ billion)**  
(Measured as hot rolled product level, low carbon steel only)

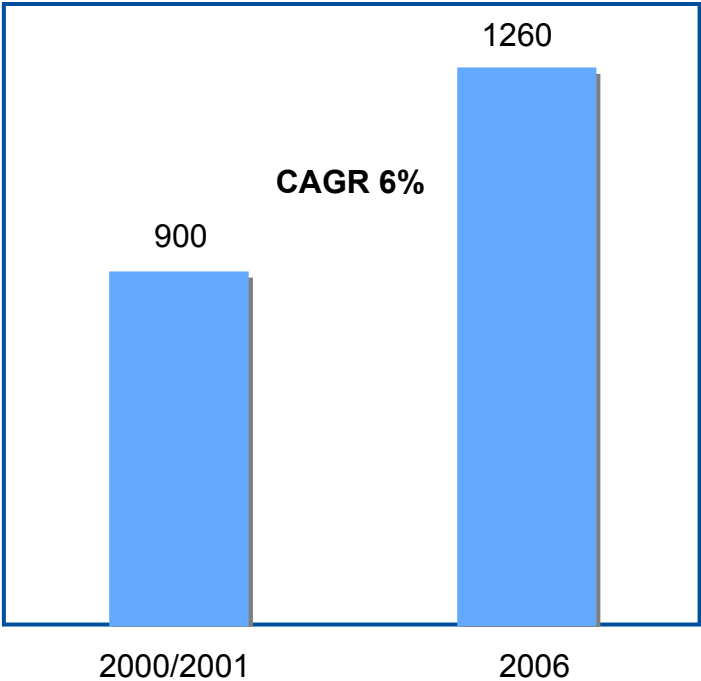


Source : IISI, Laplace Conseil analysis

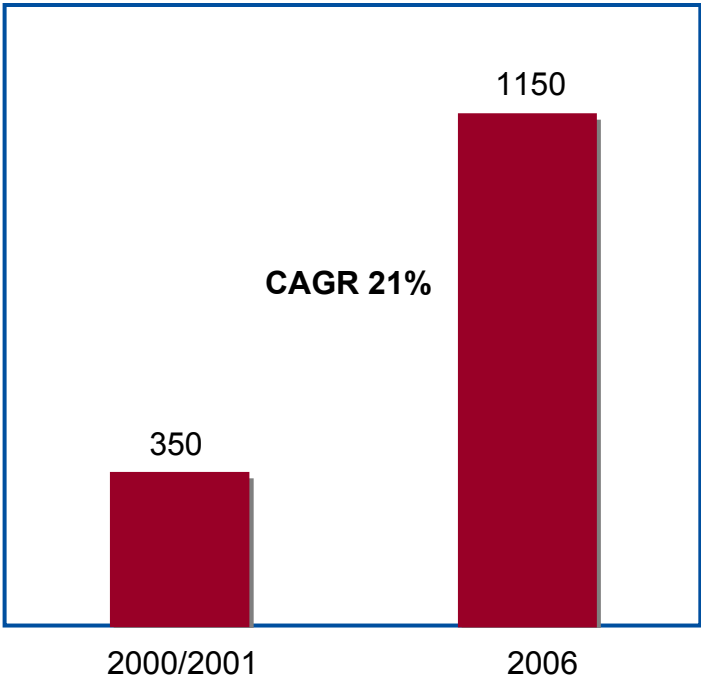


# Global steel value, including special and stainless steel, has increased even more

Crude steel production (Mt)

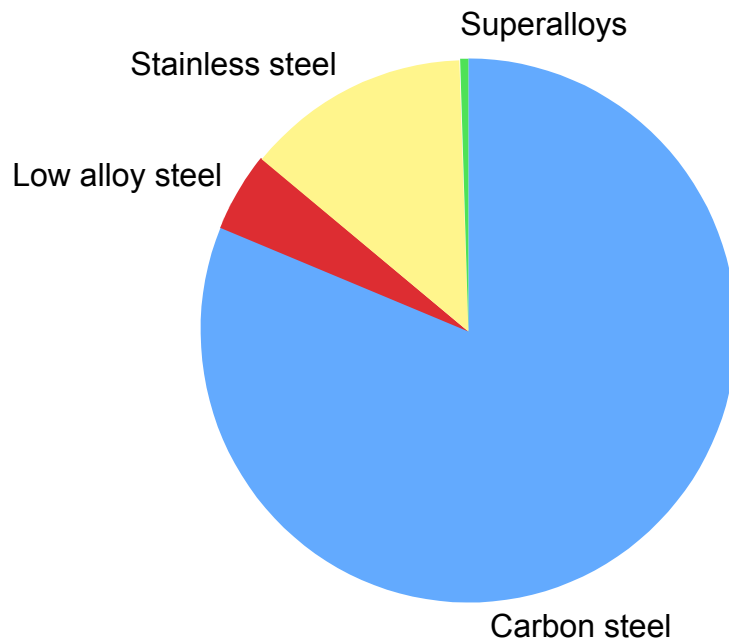


Steel production value (Bi \$)

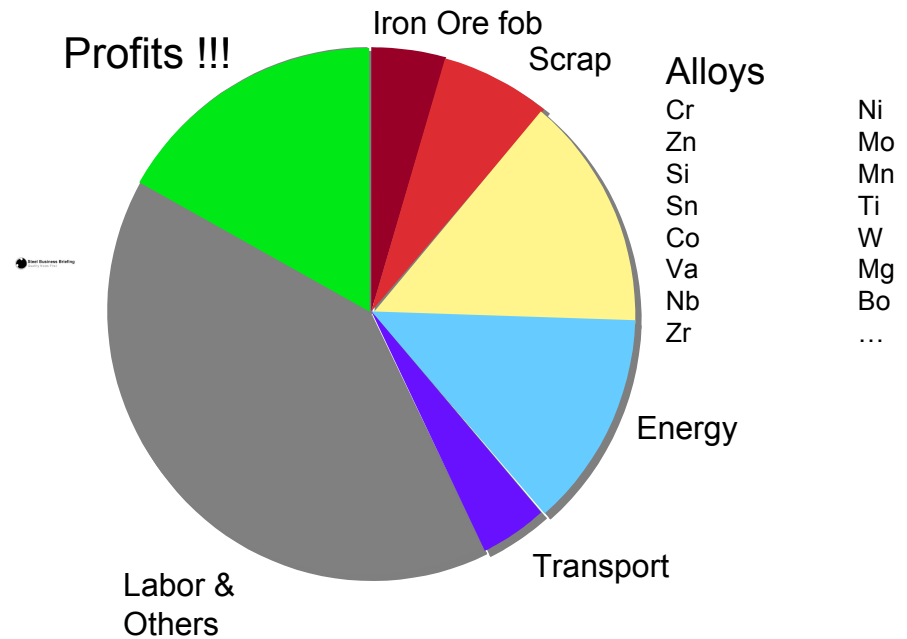


# Raw materials and energy today account for 45 % of total steel value

**Steel market value**  
100% = 1150 Billion \$



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Source : IISI, Laplace Conseil analysis

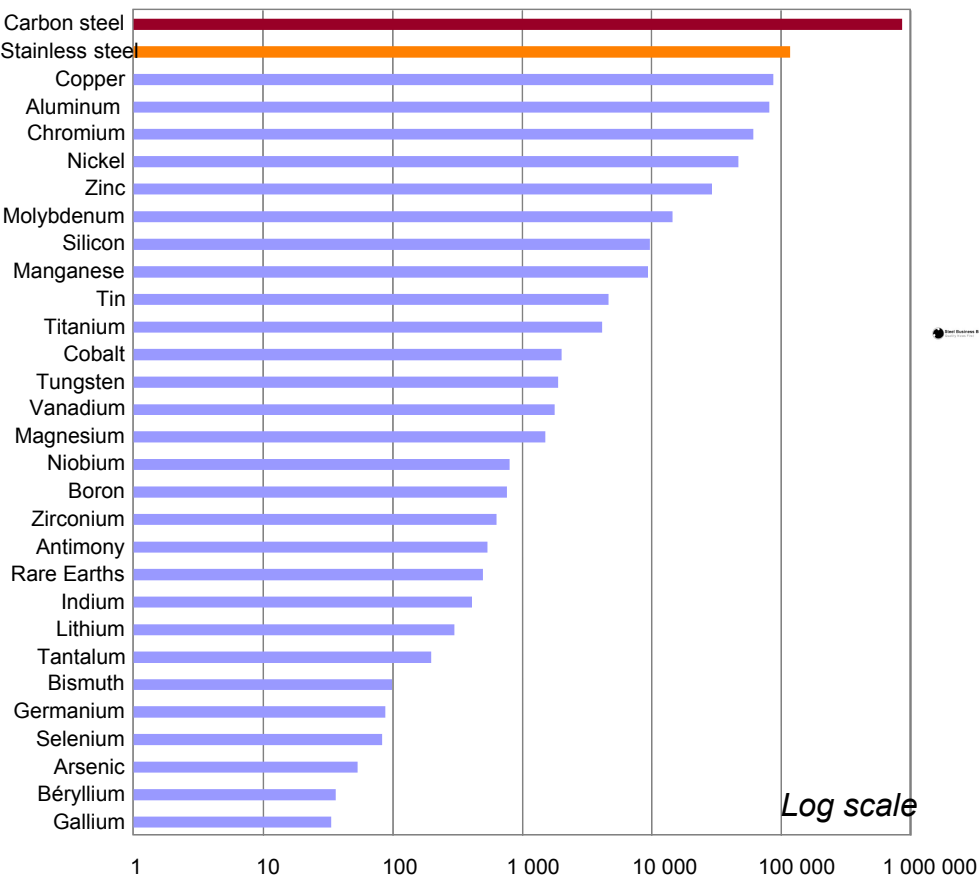


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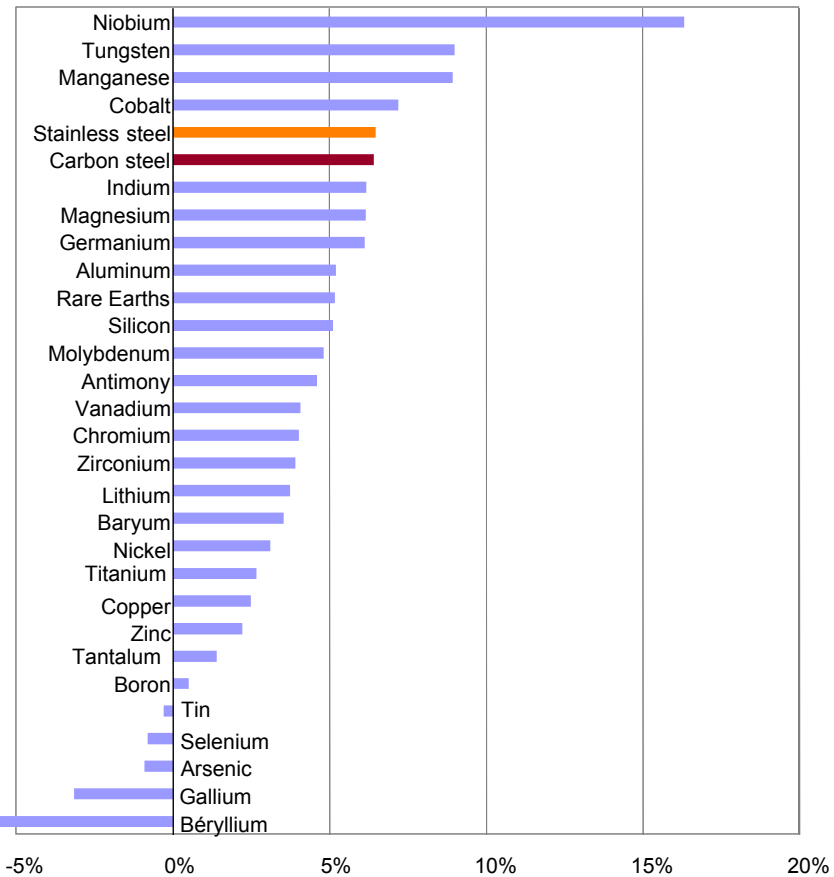


# Steel market is almost three times as large as all other metals combined.

Materials market value (M\$ 2006)



Production CAGR 2000-2006 (%)



# The steel industry global market capitalization has increased eight fold since 2003

**Dow Jones Steel share index (July 2003=100)**

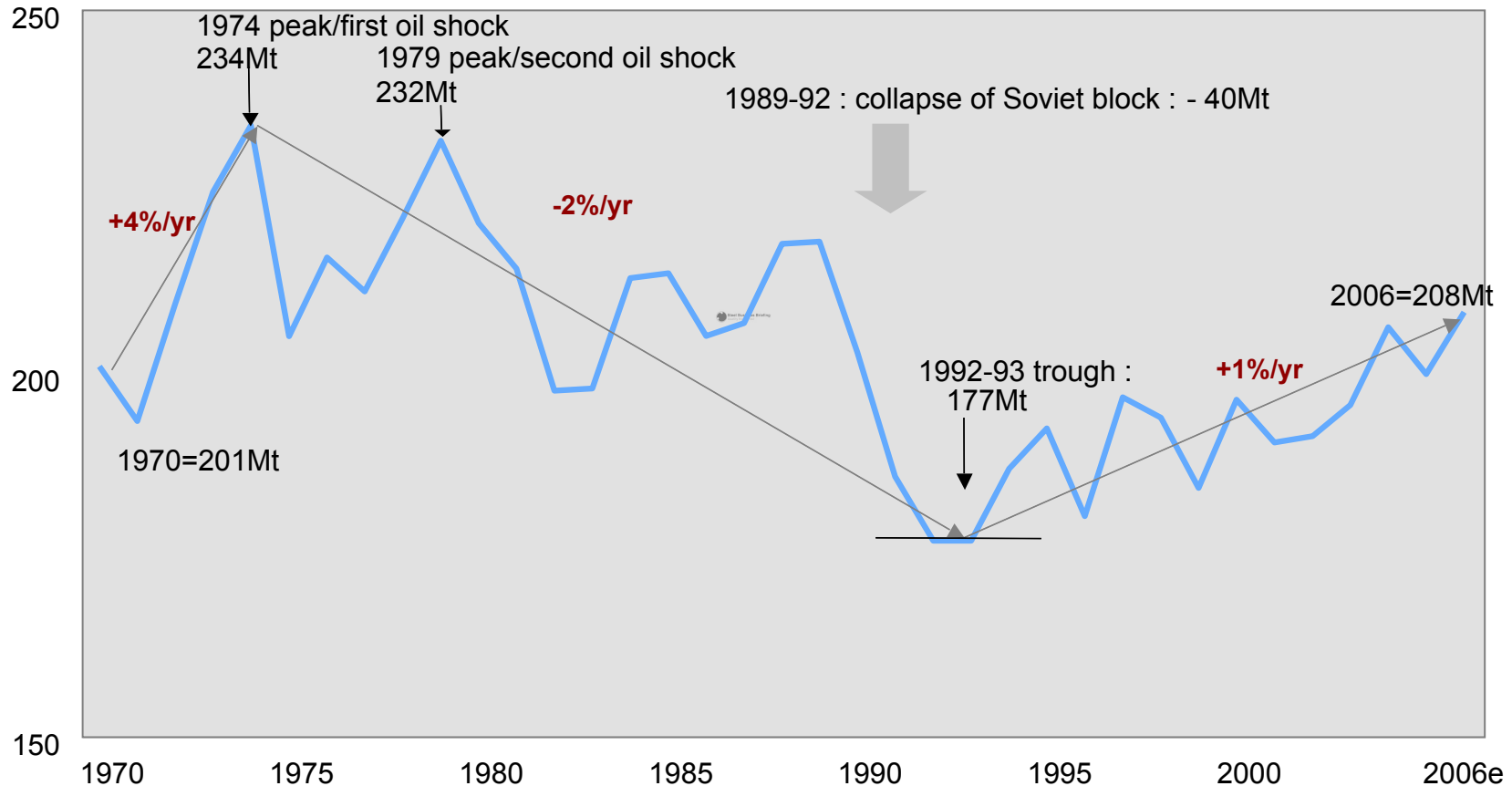


Source: Yahoo!Finance, Dow Jones, Laplace Conseil analysis



# Europe production is growing again after two decades of decline

**Crude steel production in Greater Europe** (EU27+ NW, SW, Balkan countries (Mt))



Source: IISI, JF King, Laplace Conseil analysis



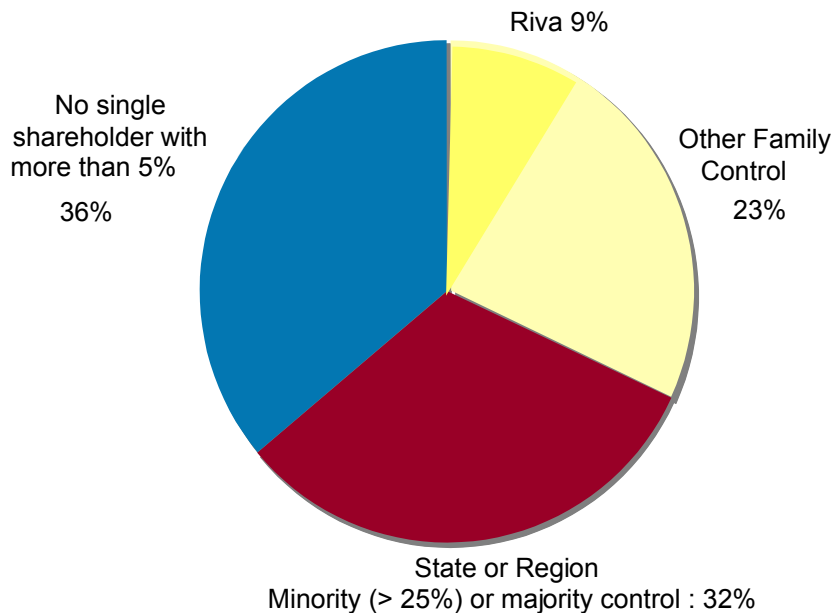
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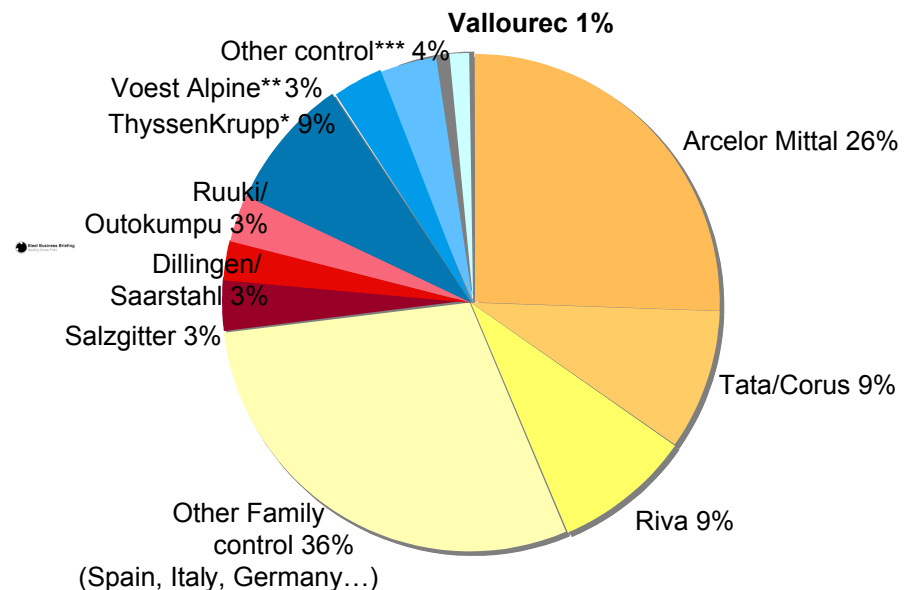
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# European\* steel ownership has completely changed. Only one producer left uncontrolled

2000 Producer breakdown\*\* by Ownership



2007 Producer breakdown by Ownership



\* EU 27 +Switzerland, Norway and former Yugoslavia

\*\* Share of crude steel production;  
100% = 196 Mt in 2000; 206 Mt in 2006

\* The Krupp Foundation holds 25,1% of TKS voting rights

\*\* 2 Austrian banks 20%; employees 10% of VA shares

\*\*\* SSAB and Sandvik are controlled by Swedish banks and funds

Kosice and Sartid are controlled by USSteel

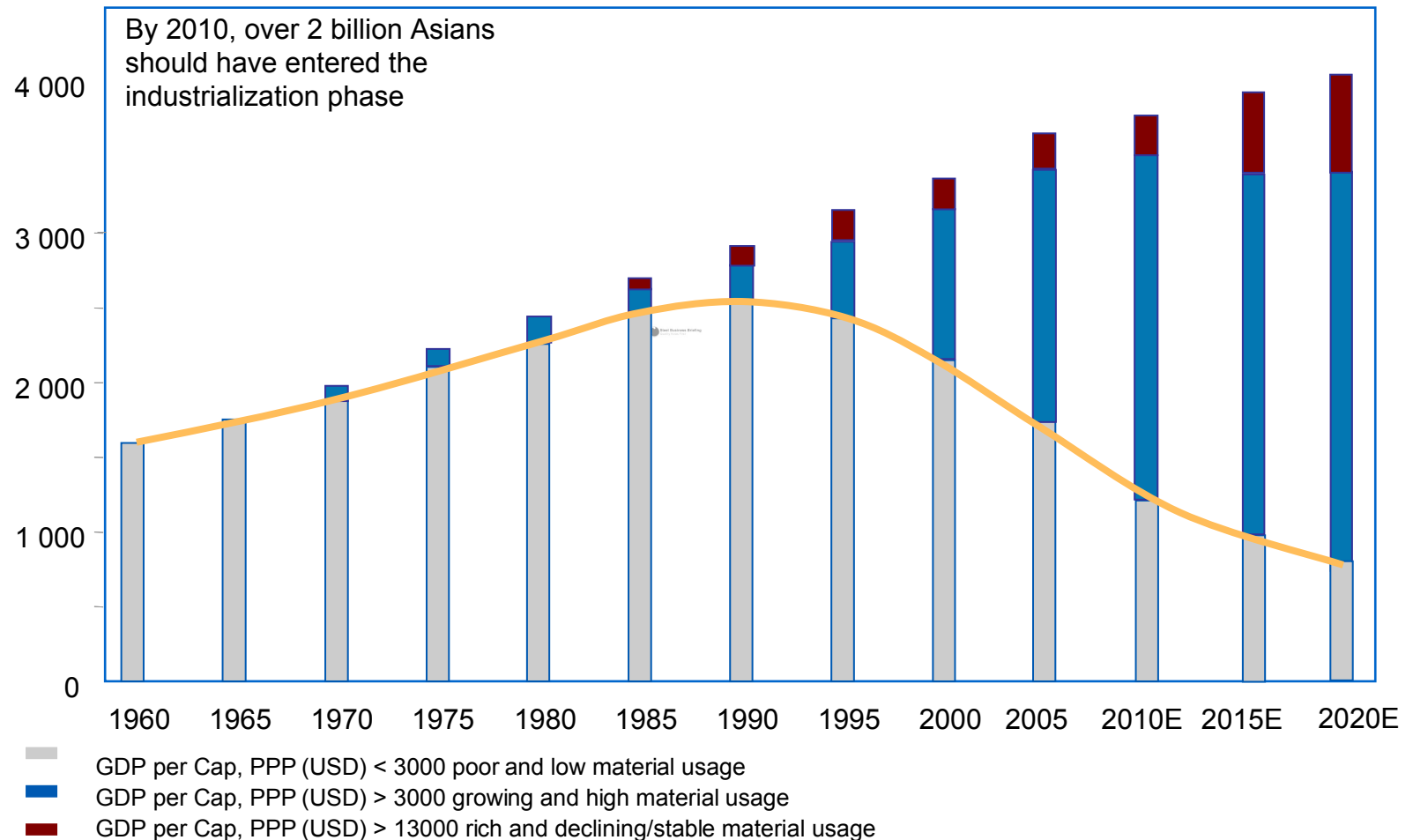
Zawiercie is controlled by US Commercial Metals

Source : Company data, Laplace Conseil analysis

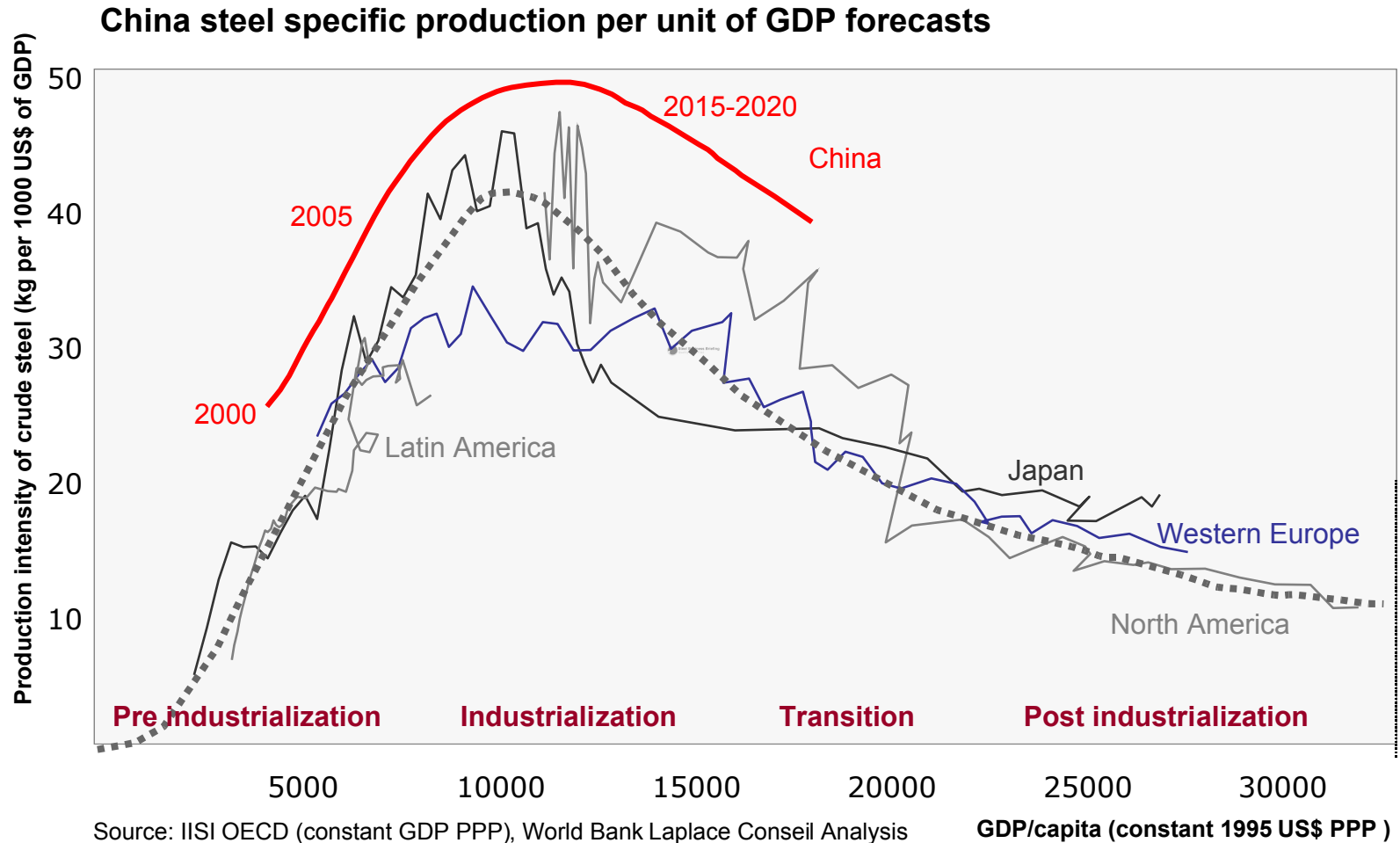


# Future steel prospects are driven by Asian industrialization, not just China

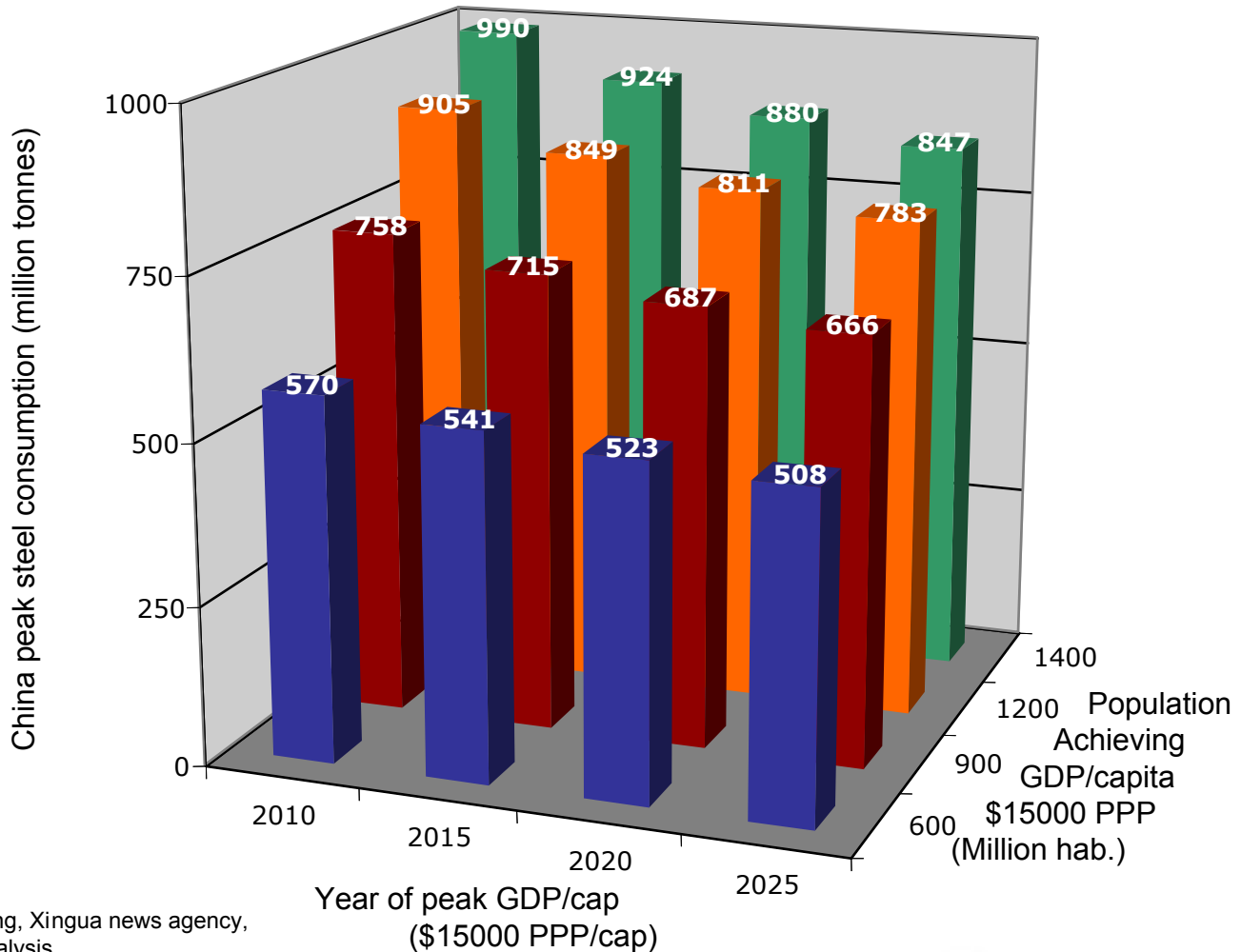
## Economic development of Asian populations



# China steel intensity curve is expected to peak around 2015 at 50 Kg per 1000 US\$ of GDP



# If China succeeds in spreading growth inland, its peak consumption will be extremely high



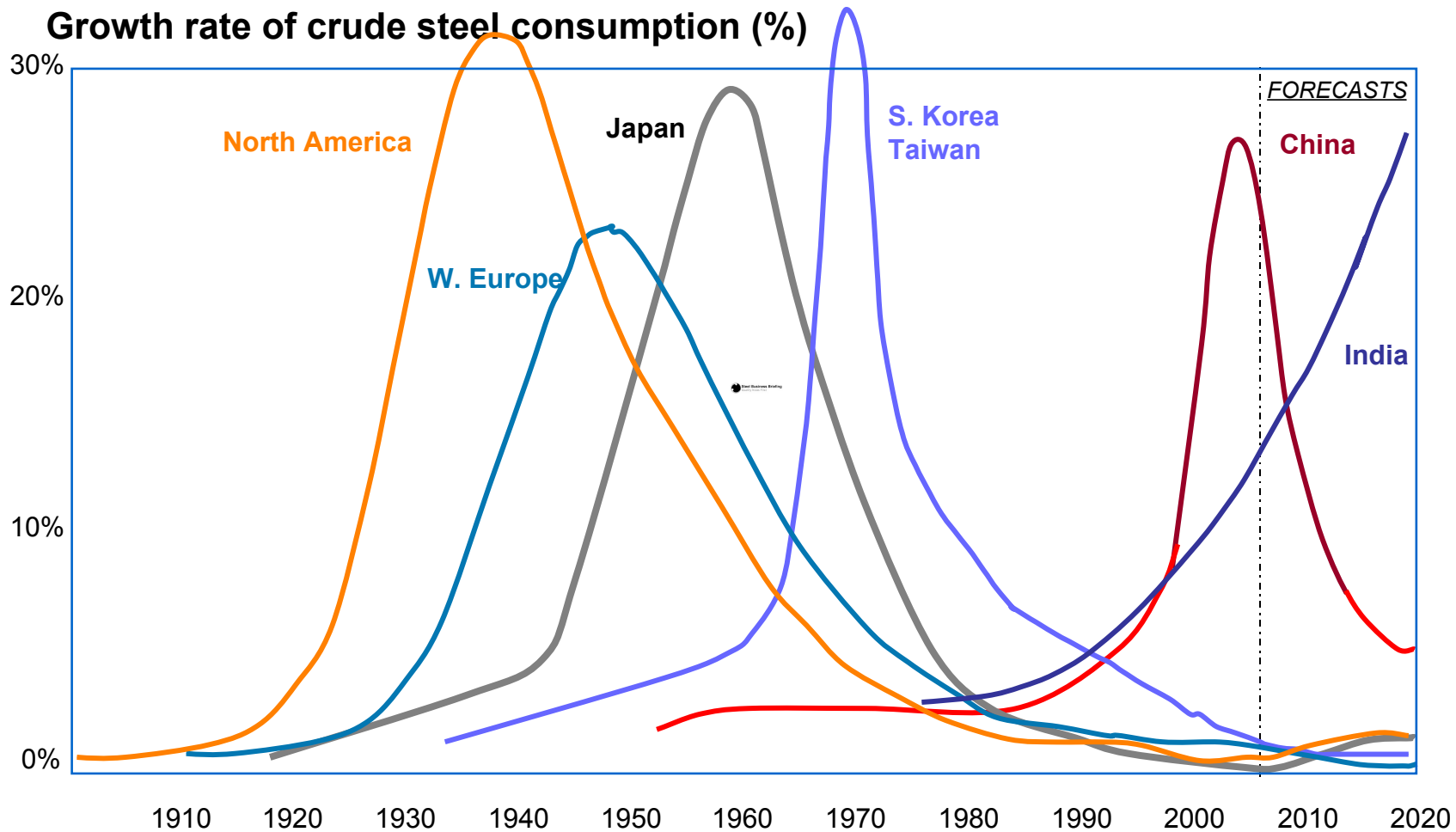
Source: Lu Xiaoming, Xingua news agency, Laplace conseil analysis



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# China and India current evolutions are similar to other economic powers in the past.



Source : IISI, USGS, Laplace Conseil analysis



# Only global risks could derail new era of continuous steel growth

## “China Hard Landing”

Following Olympic euphoria and Shanghai world exhibition success, regional dissatisfaction could arise in China poorer provinces leading to major political, then economic instability. Uncertainty would lead to reduction in Chinese demand. Excess capacity would be dumped in global markets triggering world recession.

## “Environmental catastrophe”

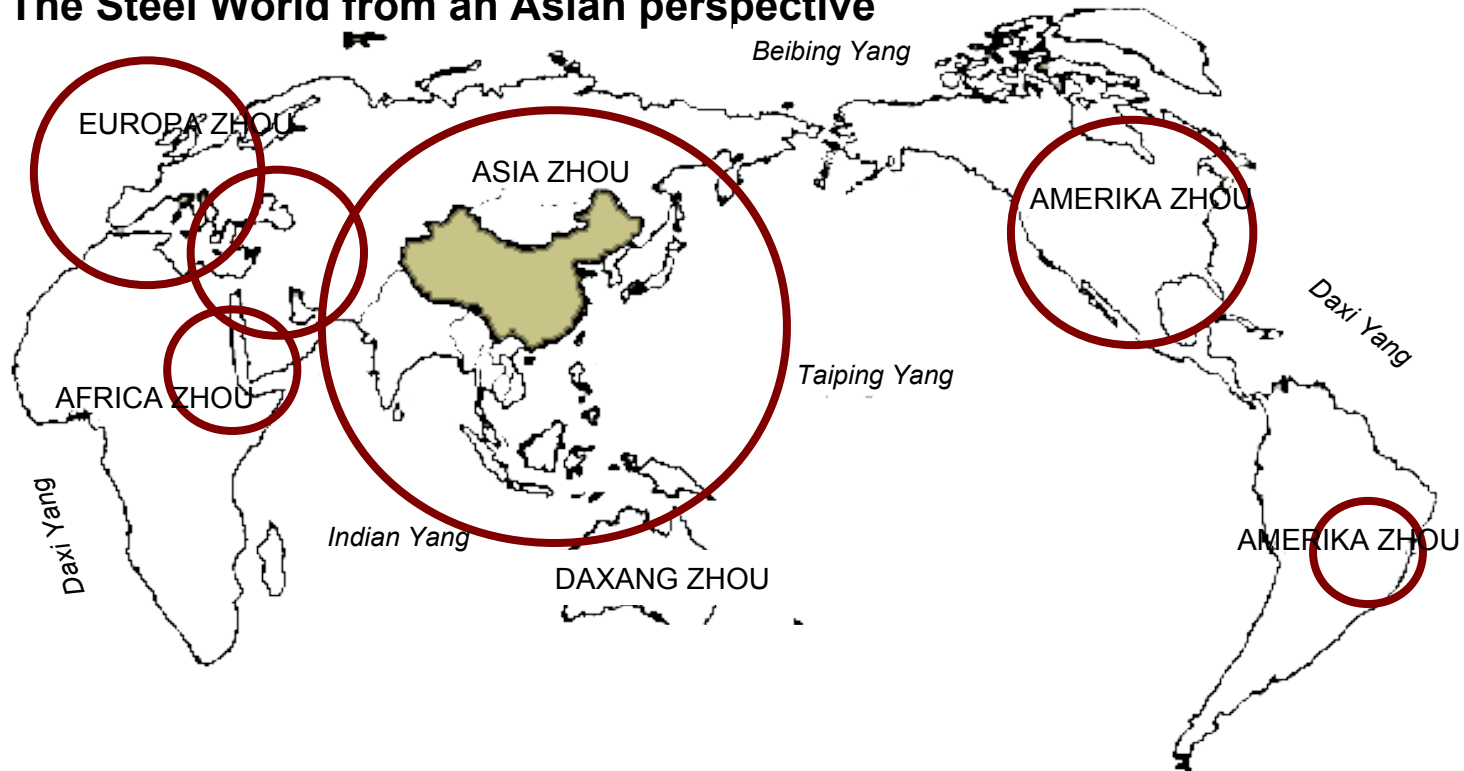
Numerous threats are regularly assessed from climate change to major pandemics. Competition for dwindling resources could also trigger conflicts leading to oil shocks, terrorism or transnational crime. Are you an optimist or a pessimist ?

## “US or Western recession”

In the past, steel demand and prices were heavily influenced by Western economies. Today, a major US recession would reduce steel demand by 30 Mt at the most, that is the equivalent of three weeks of China consumption or four months of Chinese growth. Steel dynamics are no longer governed by Western trends. Of course, these events can and will trigger pricing volatility and at times instability.

In summary, Asian growth imposes to consider the world new era from a new vantage point

### The Steel World from an Asian perspective



Source: PR China contemporary Atlas, quoted in Strategic Atlas (Chaliand and Rageau), IISI data, Laplace Conseil analysis



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Laplace Conseil was named in honor of Pierre-Simon de Laplace,  
a French mathematician and astronomer (1749 - 1827)  
who placed the theory of mathematical probability  
on a sound theoretical and practical footing.