



# OBJECTIVE ANALYSIS

## Semiconductor Market Research

### OBJECTIVE ANALYSIS DETAILED REPORT

#### CHINA'S MEMORY AMBITIONS

*Now Available*

#### **Abstract:**

China has detailed an investment plan and an organizational structure to create an important presence in the memory chip market. With its phenomenal resources and its centrally-planned economy the country is very likely to successfully penetrate the market to the detriment of today's current suppliers. This report details the plans of the Chinese government, and explains how when and why the memory chip business will respond to China's existing plans.

#### **Contents:**

Executive Summary

Why China? Why Now?

- China's Role in Semiconductors

  - China as a Chip Consumer

  - China as a Supplier

- Why China Originally Pursued a Foundry Strategy

  - Why Commodity Memories Now Appeal

- The Importance of China's Current Trade Balance

- China's Enormous Foreign Exchange Reserves

- How Currency Pressures add Urgency

The Historical Impact of Similar Investments

- Japan in the late 1970s

- Korea in the middle 1980s

- Taiwan in the late 1990s

- Successful Strategies for Memory Market Entry

Past China Investments and their Impact

- Typical Investment Patterns

- Some of China's Past Strategic Investments

  - Textiles

  - Photovoltaics

  - LEDs

  - LCD Panels

  - Aluminum

  - Steel

- Summary

How China Invests

- The Tsinghua Organization

  - YMTC

- National Semiconductor Industry Investment Fund: The “Big Fund”
  - Local Funds
  - Managing Foreign Investors
  - How China Chooses Investment Targets
  - Regional Special Interests
  - Structure of Businesses
- International Trade Issues
  - The US and the ITC, DOC, and CFIUS
  - The European Community
  - China’s MOFCON’s
  - Trade War
  - Intellectual Property
- Why China Has Struggled in the Past
  - Government Direction of the Business
  - The Role of Political Cronyism
  - Market Share Focus
  - Recommendations for Future Success
- China’s Impact upon the Semiconductor Cycle
  - Standard Commodity Cycles with Organic Investments
  - The Three Phases of Semiconductor Price Cycles
    - Shortages
    - Onset of an Overcapacity
    - Ongoing Overcapacity
  - Why Semiconductor Cycles are Memory-Driven
  - The Impact of External Investment
  - How China’s Investment Will Impact the Semiconductor Cycle
    - If China Ramps During a Shortage
    - If China’s Ramp Coincides with the Onset of an Oversupply
    - If China Ramps During an Ongoing Overcapacity
    - Likely Outcome to Existing Semiconductor Suppliers
  - A Forecast Based on this Methodology
- What a China Memory Company Means to Various Others
  - Competing Chip Makers
  - Other Semiconductor Makers
  - OEMs
  - Tool Suppliers
  - Global Investors
- Likely Impact upon the Memory Chip Business
- Likely Impact upon the Global Semiconductor Business
- Methodology