The Global Industrial Gases Business

Current Trends and Issues

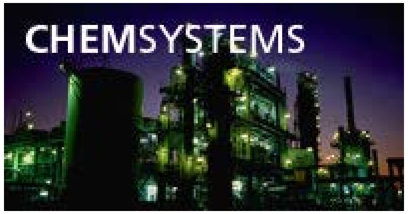
John Raquet

British Cryogenics Council's Cluster Day
September 2013

Introduction
John Raquet

spiritus

- **Began life at** AIR PRODUCTS
- **Moved to ...** Taylor-Wharton
- **Escaped and became a General Consultant –**



- **Set up what became Spiritus in 1995**
  - 100% focused on industrial gases business
- **Founded gas**world.com **(2003):** gasworld
- **Acquired CryoGas International (July 2013)** CryoGas International

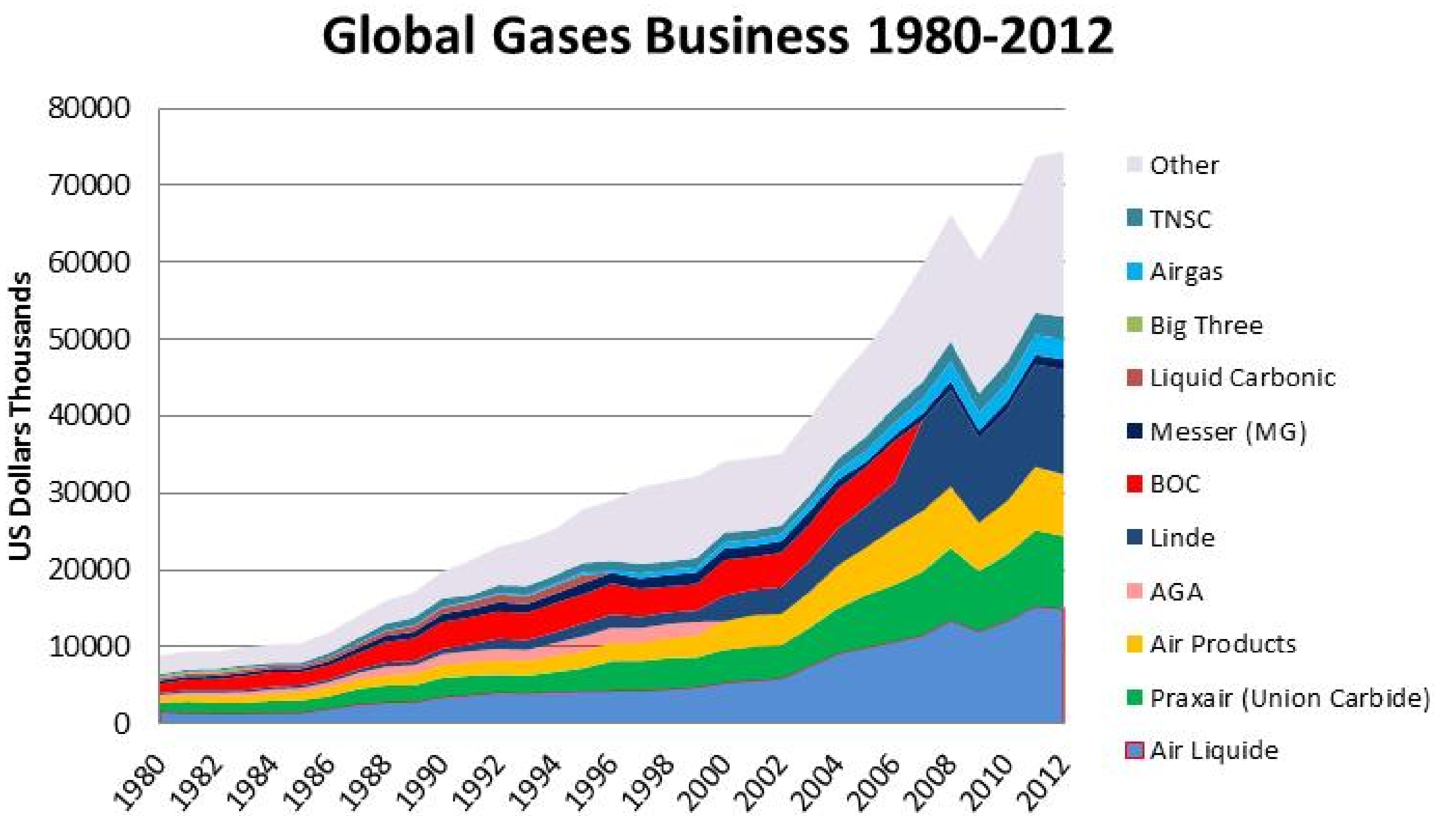
Agenda

- Global Gases Business: Overview
- The Bulk and Cryogenics Business
- Summary

Global Gases Business
Current Realities of the Industry

- **Industry reached c. $74.5 Bn in 2012 (+1% on 2011)**
  - excl. equipment sales, wholesales and non-gas business
- **6 Months 2013 shows improvement to about 6% for the year**
  - Both volume driven
- **Spiritus 5-year forecast predicts 7-7.5% CAGR**
- **The industrial gases business may have become global but is <u>executed</u> on a local basis**
- **Capex requirements very dependent on business mix (on-sites v bulk v cylinder) and demand for gases**
- **Consolidation Continues across the world**
- **Industrial gases remains moderately profitable**
  - c 16-18% EBIT but provides consistent shareholder value.

Market Research
Global Gases Business

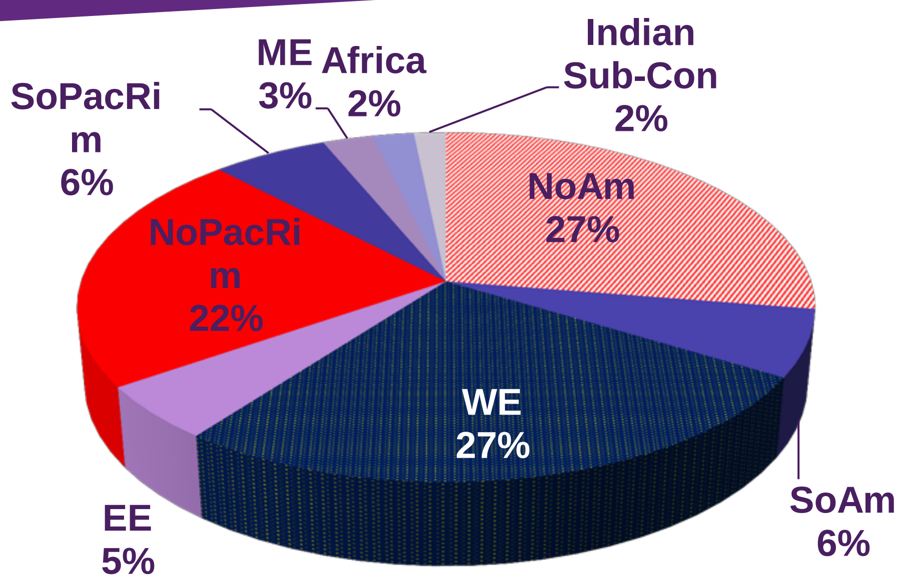


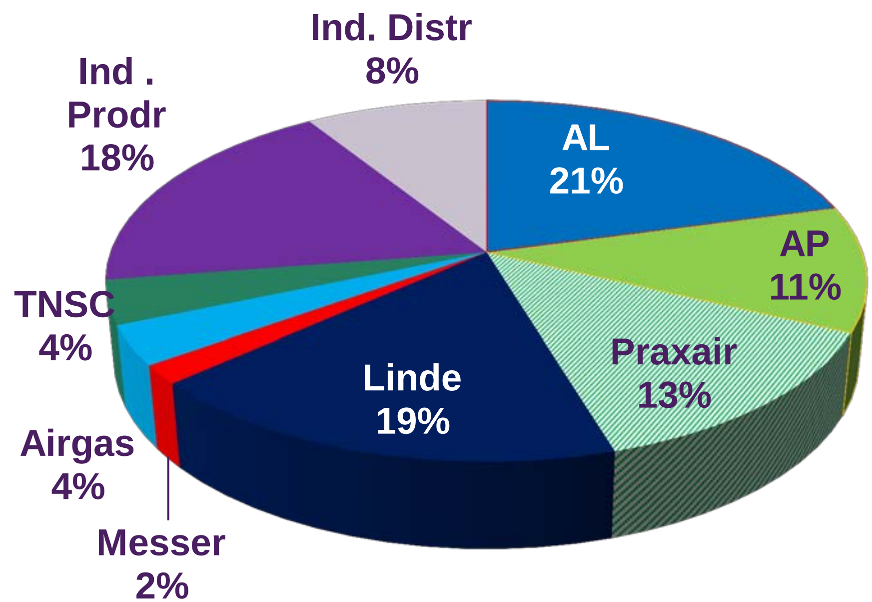
Current US$

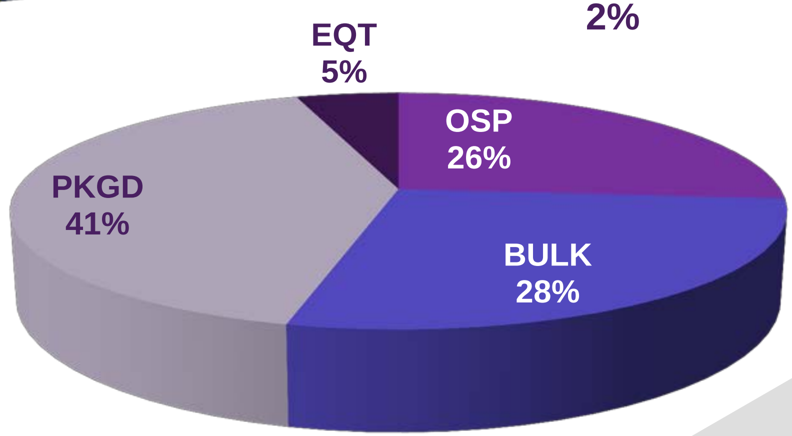
Source: Spiritus analysis based on published data

Global Gases Business

Est. 2012 Structure

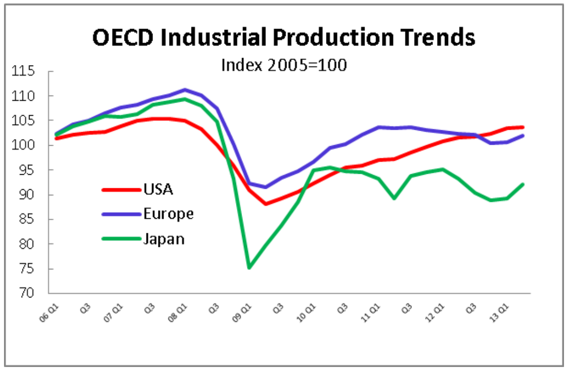




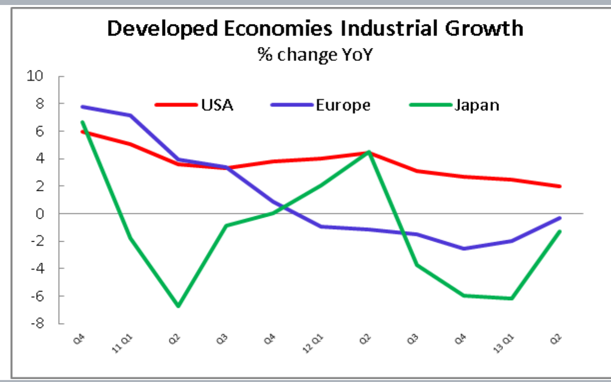


Global Gases Business
Q2 2013 Performance Dashboard

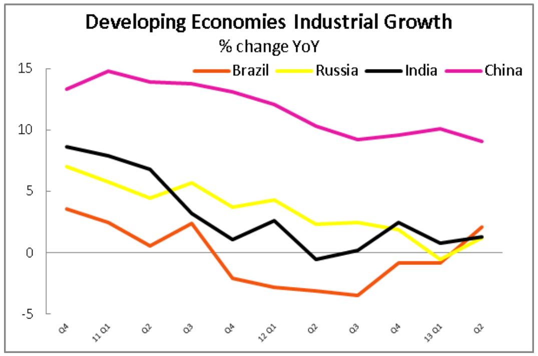
INDUSTRIAL PRODUCTION DEVELOPED COUNTRIES



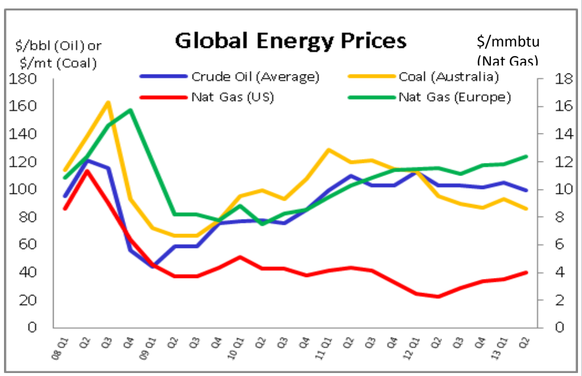
DEVELOPED ECONOMIES GROWTH



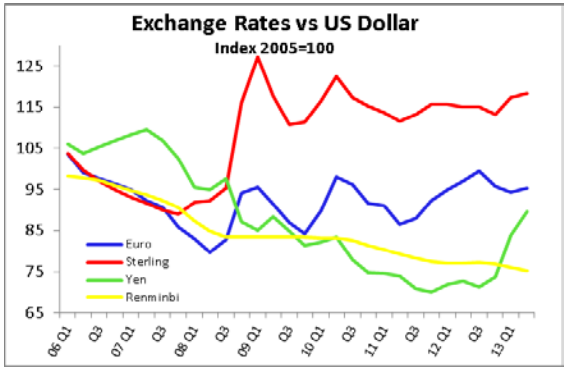
DEVELOPING ECONOMIES GROWTH



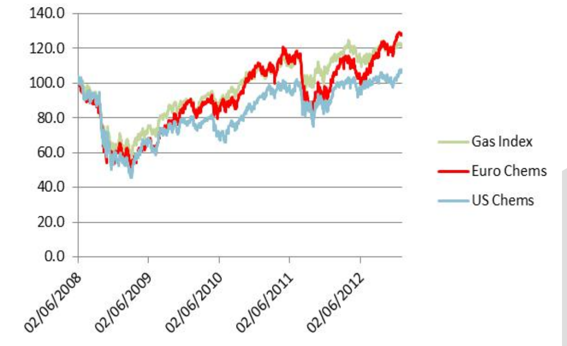
GLOBAL ENERGY PRICING



MAJOR CURRENCIES



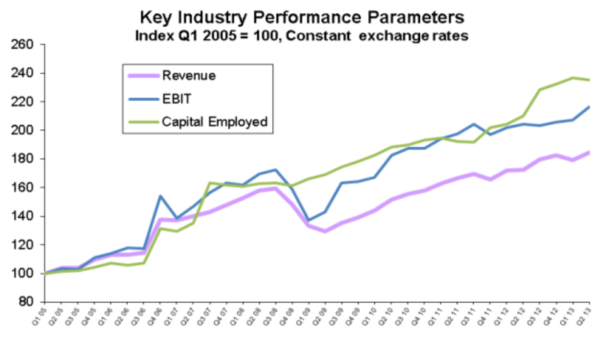
STOCK MARKET PRICES



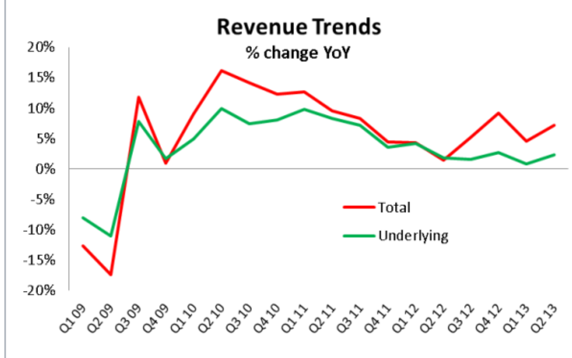
Global output up modestly in Q2 – China and US highest YoY growth, Japan & Europe weakest; Energy prices mixed – natural gas up; Currency movements dominated by swing in Yen

Global Gases Business
Q2 2013 Performance Dashboard

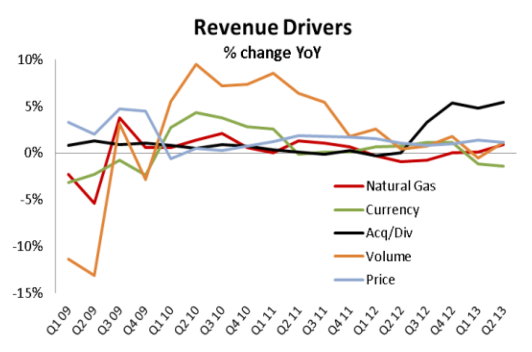
GAS MAJORS' PERFORMANCE



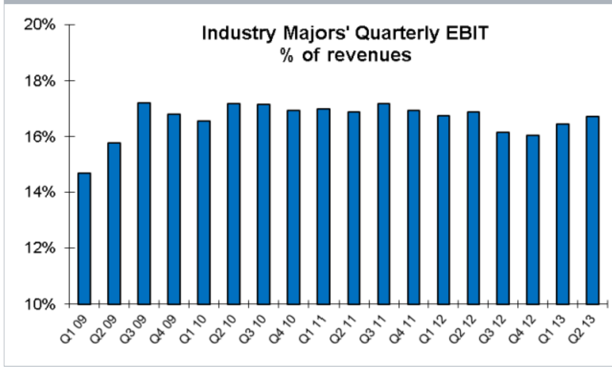
INDUSTRY REVENUE TRENDS



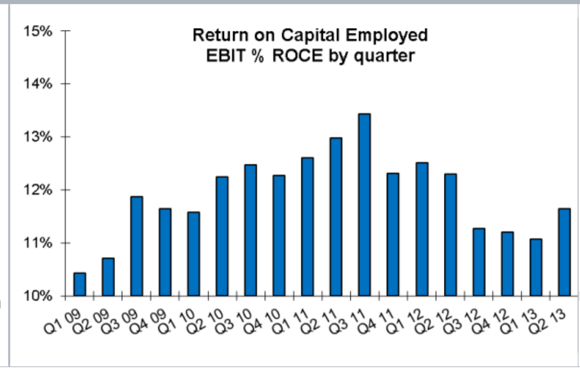
INDUSTRY REVENUE DRIVERS



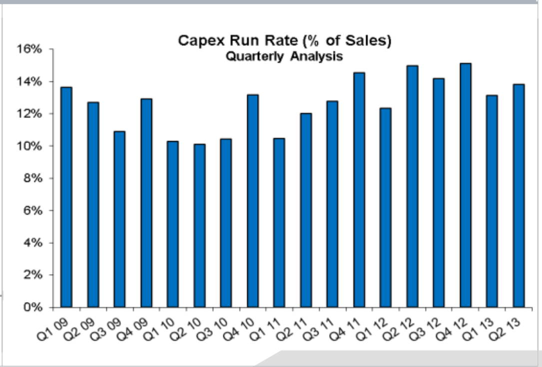
INDUSTRY EBIT MARGIN



RETURN ON CAPITAL EMPLOYED



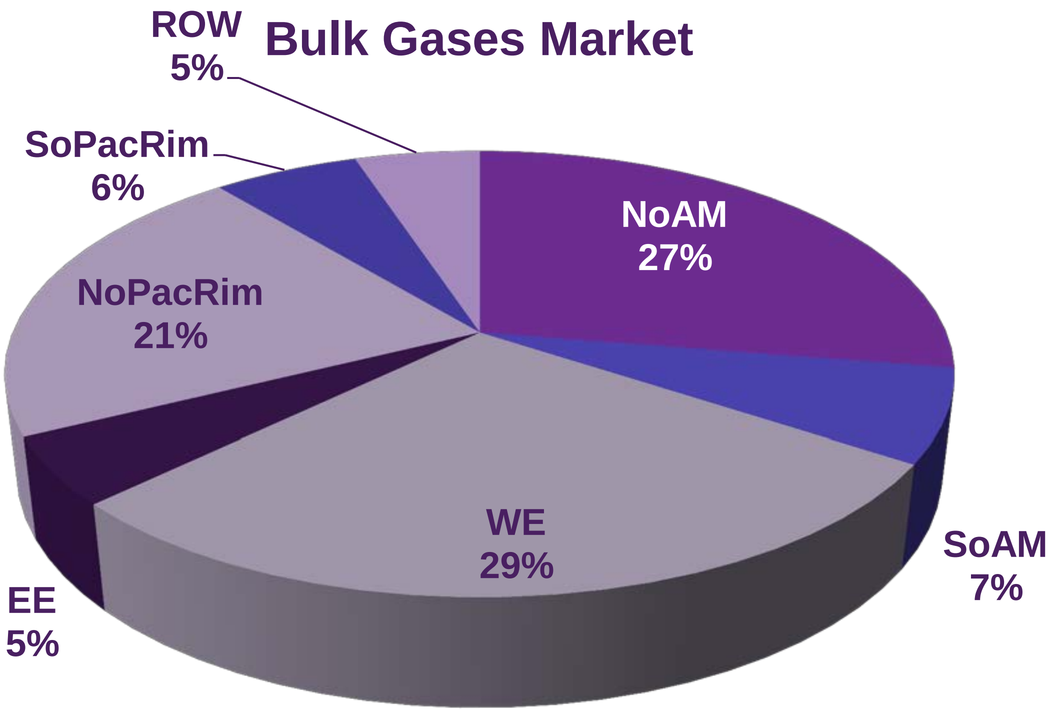
CAPEX RUN RATE



Industry growth trend resumed; underlying drivers remain modest, major contribution from acquisitions; Profitability up but below peak margins; Capex rate edged up

Global Bulk Business

Est. 2012



IG Cryogenics Equipment
Main Markets

- **Cryogenic Tanks**
  - IG Worldwide Pool: 250,000 tanks
  - IG Market growing at 7,000 / yr
  - Polarisation (larger and Smaller tanks)
- **Cryogenic Tankers**
  - IG Worldwide Pool: 17,500 Tankers (>3000 M3)
  - IG Demand growing at 800 / yr
- **Cryogenic LGCs**
  - IG Worldwide Pool: 600,000 LGCs (>160 litre <240 litre)
  - IG Market growing at 50-80,000 / yr

LNG Cryogenics Equipment
Main Markets

- **Distribution/Transport Market**
  - In US and China, now 50% of cryo equipment sales for LNG
  - Northern and southern Europe, SE Asia, Australia, SoAm
- **Synergistic equipment and uses**
- **Short-medium term opportunity**

Helium Markets
Supply Update

- **Moving into v. tight supply for next 2-3 months!**
  - ExxonMobil WY off line in October
  - Qatar II production issues in coldbox (commissioned but <50% operation)
  - Skikda (Helison) no feed gas to date
  - Arzew, approx 50% operating rate (feed gas issues)
  - BLM, well down from 2.1 BNSCF output at present
  - Big Piney (AP/Matheson) ??? No feed gas as yet
- **The BLM: D-Day Approaching**
  - 7 October, ceases production due to completion of funding arrangement with US Gov’t
  - Renewal of funding (Helium Stewardship Act) at US Gov’t Houses but caught in general Gov’t Funding debate at present

Summary

- **2012, saw a Slowdown in Growth**
  - Volumes slowed but Prices solid
  - Cost cutting going on

- **China / Developing Economies drive plant and equipment capex**
  - Outsourcing continues, Mega Energy (CTC)
  - BUT : Some ASU re-investment needed in N America

- **LNG dictating short-term marketing focus of equipment mfers**
  - Will play an important revenue generator over next 5-10 year

- **IG Gases Business will still show good growth next decade** spiritus

Thank You

Q&A Time!