

World Investment Casting Market Review 2013

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Introduction

- The latest IMF global growth forecast cut to 3.1% for 2013
 - Slower growth in developing economies will restrict growth impact in advanced economies in 2014
- The continuing poor global economic situation means that understanding the performance of the investment casting industry is essential to foundries
- This review of global markets gives a summary for 2012 and estimates likely results for 2013



Acknowledgements

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ICI (Investment Casting Institute, United States)

CAEF (Casting Association of European Foundries)

CFA (China Foundry Association)

JFS (Japan Foundry Society)

EICF (European Investment Casters' Federation)

cmf (Cast Metals Federation, UK)

ABIFA (Brazilian Foundry Association)

Individual contributors

The information given is based on official figures together with best estimates where statistics are not available. No legal responsibility is accepted for information, advice given or opinions expressed



Agenda

- World Investment Casting Sales 2012
- Market Sector Analysis
- Market Sector Review
- 2012 Summary
- Estimates for 2013

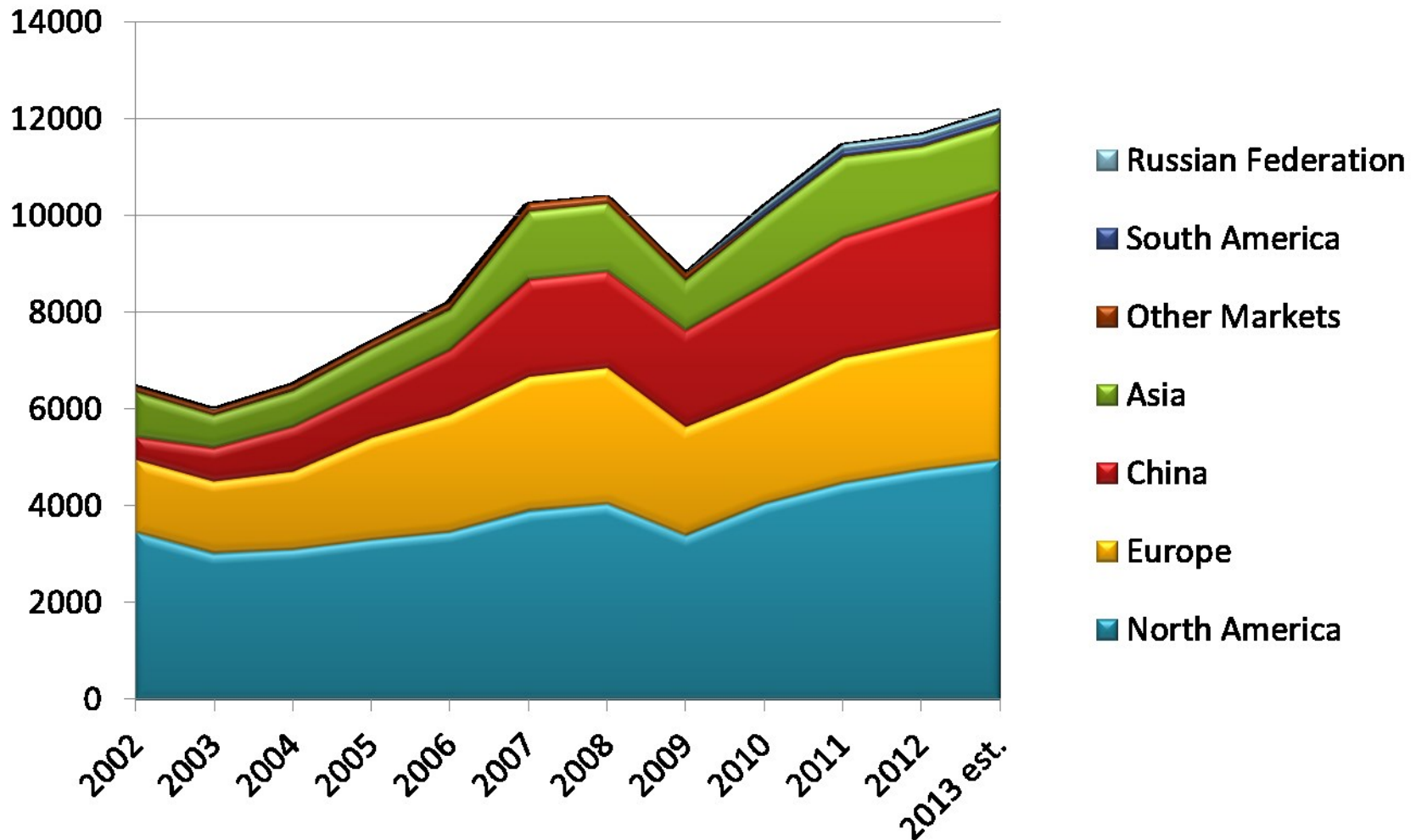


World Investment Casting Sales 2012

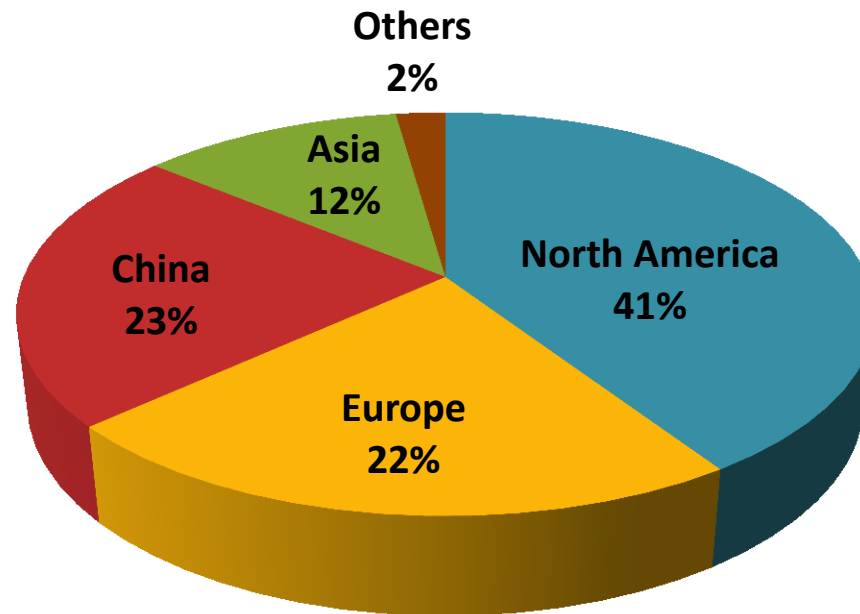
- The final figures for 2012 indicate a total sales value of US\$11.6 Billion
 - Overall increase of only 2% compared to 2011
 - North America and China outperformed all other regions
- There is a clear split in performance between the major market sectors
- Growth continues to be in the aerospace sector
- Automotive very poor in Europe, disappointing in Asia



World Sales by Region 2002 – 2013 (US\$M)



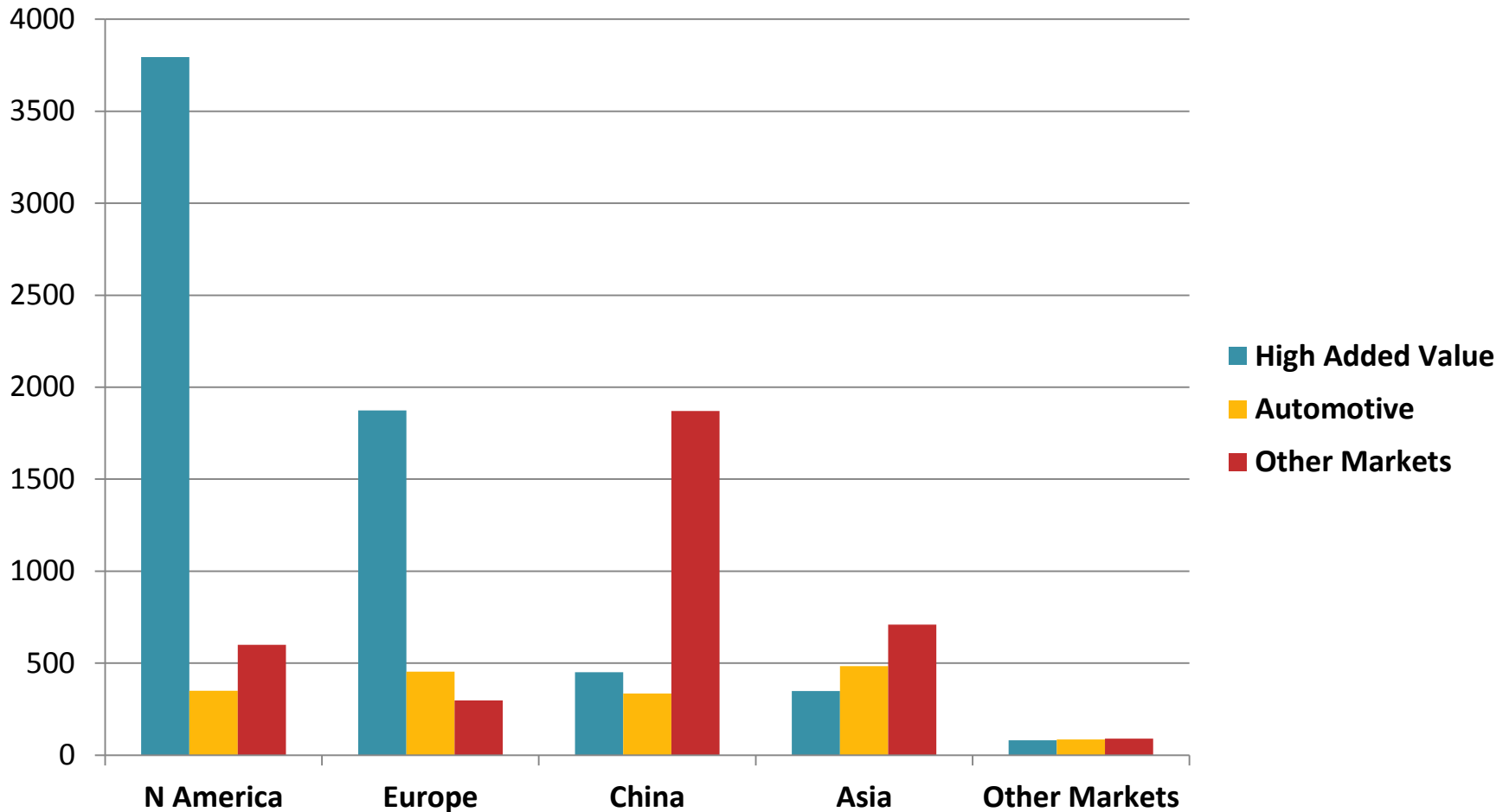
Sales by Region 2012 (US\$M)



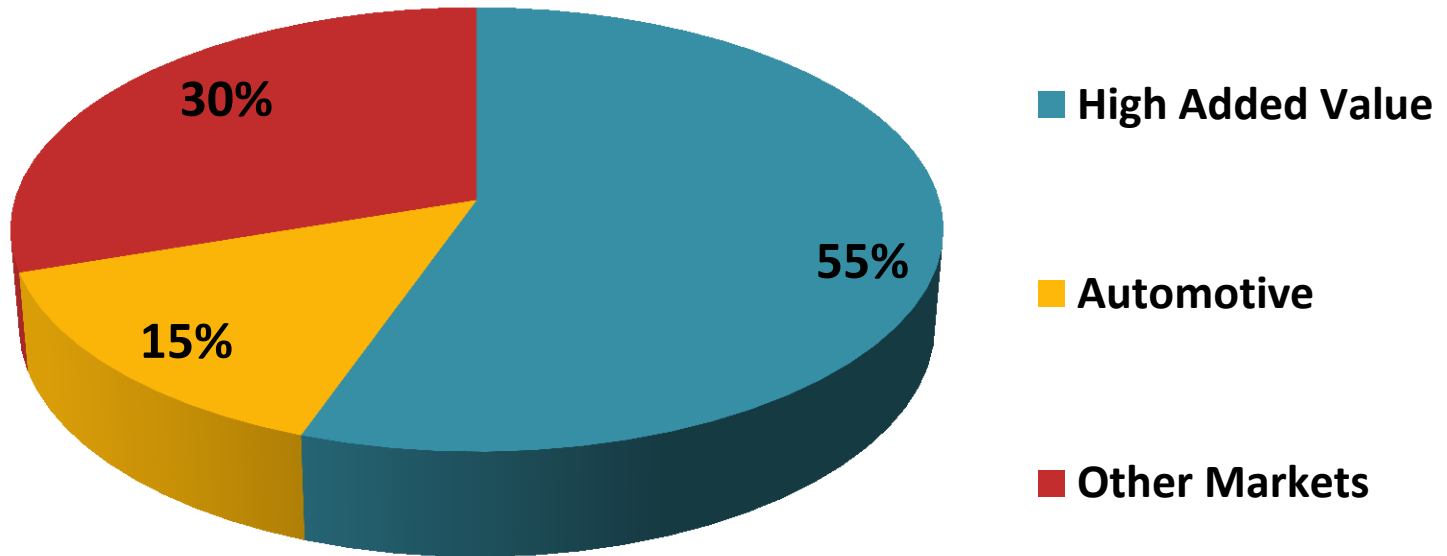
- Some regions outperforming others
- Tends to be sector dependent
- Sales higher in regions strong in High Added Value
- North America strengthens position as leading market
- China overtakes Europe



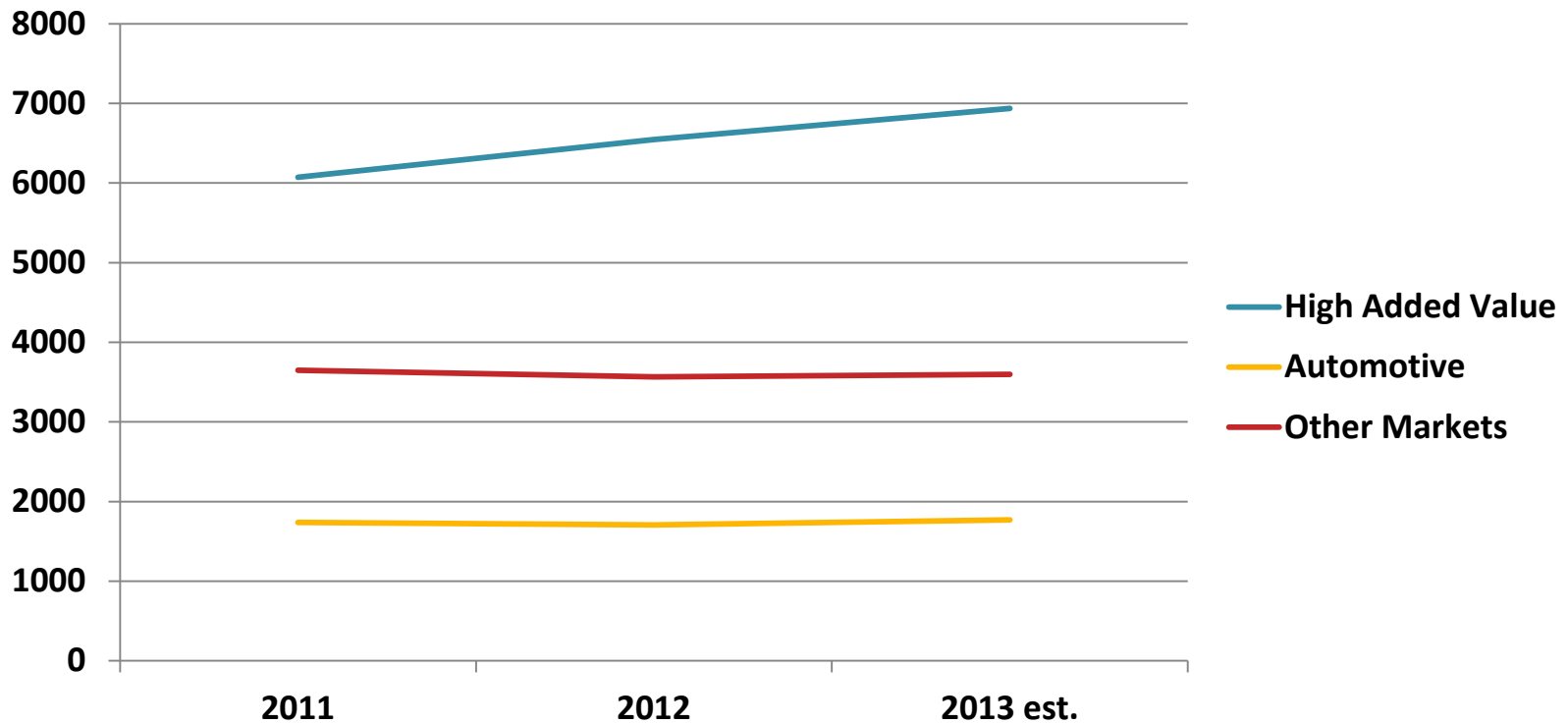
2012 Investment Casting Sales by Sector (US\$M)



Investment Casting Sectors 2012



Investment Casting Sector Trend



- Aerospace strong growth continues
- Automotive results mixed but turbocharger wheels increasing
- Commercial castings market flat



Aerospace

- Paris Air Show again very successful
 - Airbus new sales for 466 aircraft worth US\$69 Billion
 - Boeing sold 442 aircraft valued at more than US\$66 Billion
- High level of investment in China and Russia to develop their industries
 - Both developing new aircraft
 - Aiming at lucrative single-aisle market
 - Estimated worth US\$20 Trillion over next 20 years
- Dreamliner now in service
- Airbus A350 first flight June 2013



Industrial Gas Turbines

- A mixed picture with regional variation
- North America seeing increased demand for medium size turbines
 - Large 60 cycle frame orders flat
 - Percentage of IGT increasing
- European market remains at a low level though some improvement being seen
 - New tooling being ordered
- Demand for increased generation capacity in developing economies should offer an improving future for IGT



Defence

- Continuing economic pressures resulting in need for governments to reduce spending
 - Cuts in North American and European Union defence budgets implemented
- Russia investing in replacement for ageing MIG fleet
- Analysts suggest that the global defence market will contract over the next two years



Automotive

- North America vehicle sales up by 14% in 2012
 - Smaller models with greater fuel efficiency
- European demand for new vehicles declining
 - Due to more durable vehicles and falling ownership
 - Manufacturing capacity being cut
 - UK an exception
- India vehicle sales down
 - Cars -8%, commercial -15%
- Investment casting sales are increasing
 - Greater use in fuel efficient vehicles
 - Turbocharger wheel potential for increases



Other Sectors

Medical

- Joint replacement business increasing
- Casting applications increasing for surgical instruments, injury stabilising appliances, diagnostic equipment

Commercial

- Overall sales are steady
 - Some regions performing better than others
- Oil industry demand for cast parts increasing



2012 Summary

- Overall a good performance by investment casting in the face of continuing economic difficulties
- Aerospace responsible for sales growth
- All other sectors are essentially flat
- Large variations between individual regions



Prospects for 2013

- Latest market data for Global investment casting sales suggests total sales for 2013 of US\$12.2 Billion
 - An increase of 4.4% over 2012
- Aviation is driving investment casting growth around the World and seems set to continue this trend for several years
- Cutbacks on infrastructure projects and the continuing poor global economic situation are restricting all other sectors
- The effect is that High Added Value castings are currently dominant in the global investment casting industry



Thank You