



Global Agribusiness Forum 2016

Food Security and Opportunities in the Agribusiness Value Chain

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Sócio

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Agenda

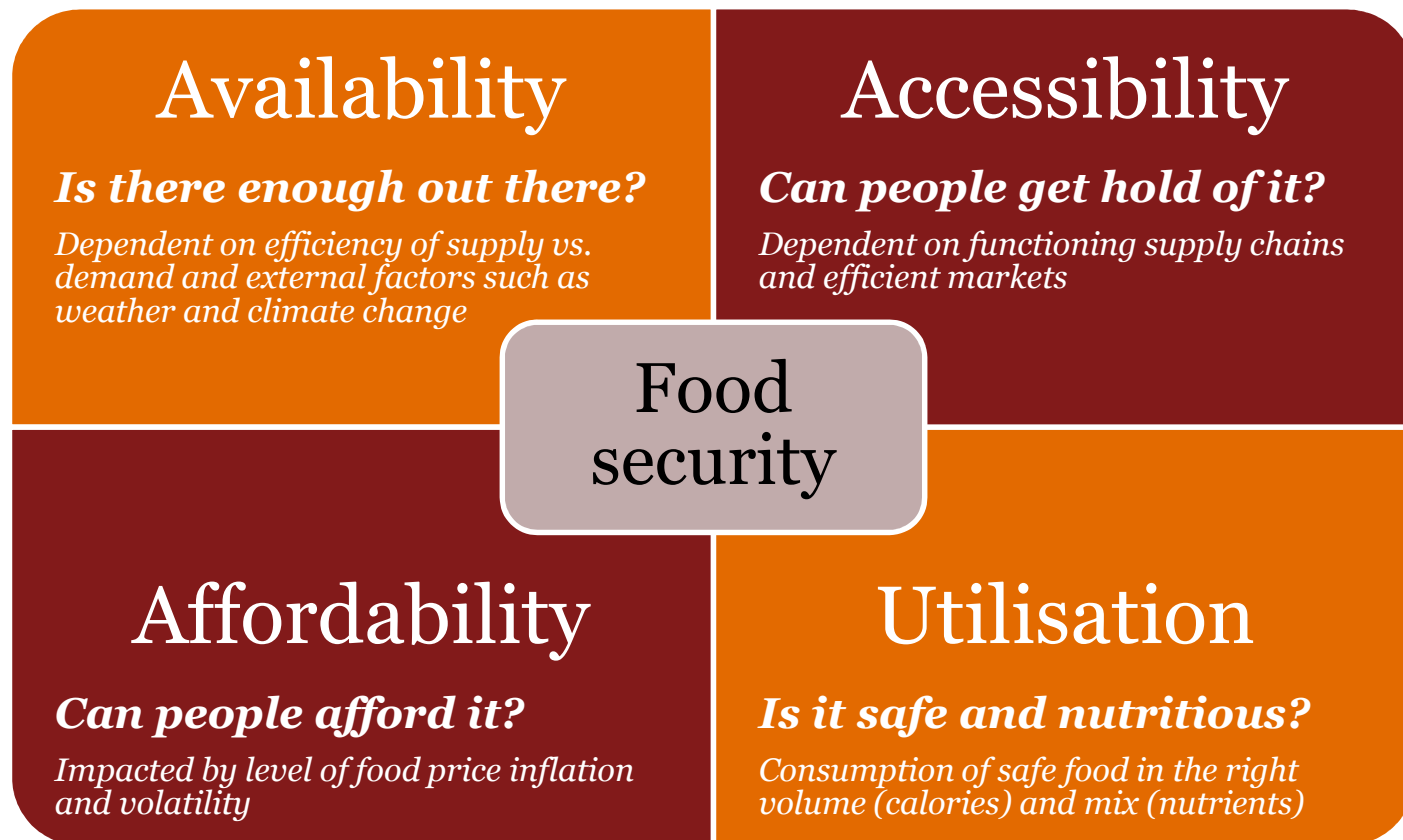
- What do we mean by a sustainable food supply and why is this so important for the world?
- What do investors look for in agribusiness and how to position your business?

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*What do we mean by a
sustainable food supply?
And why is this important?*



The key pillars of a sustainable and healthy food supply



This is both a current and long term concern for the world

Current risks to food security

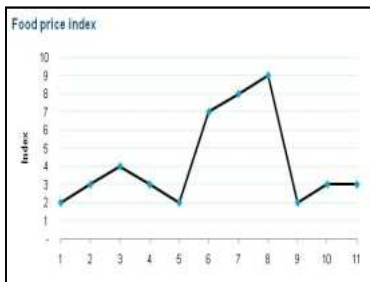
Short term supply shortages, e.g. bird flu, SARS, contamination



Closing of borders/ export bans



Short-term price spikes



Food riots



Long term risks

Climate change



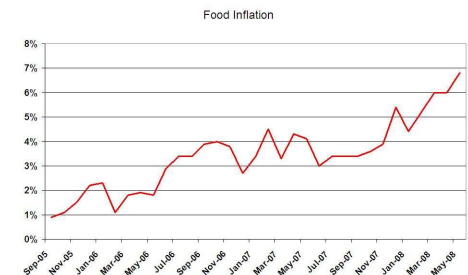
Geo political risk



Rise of China

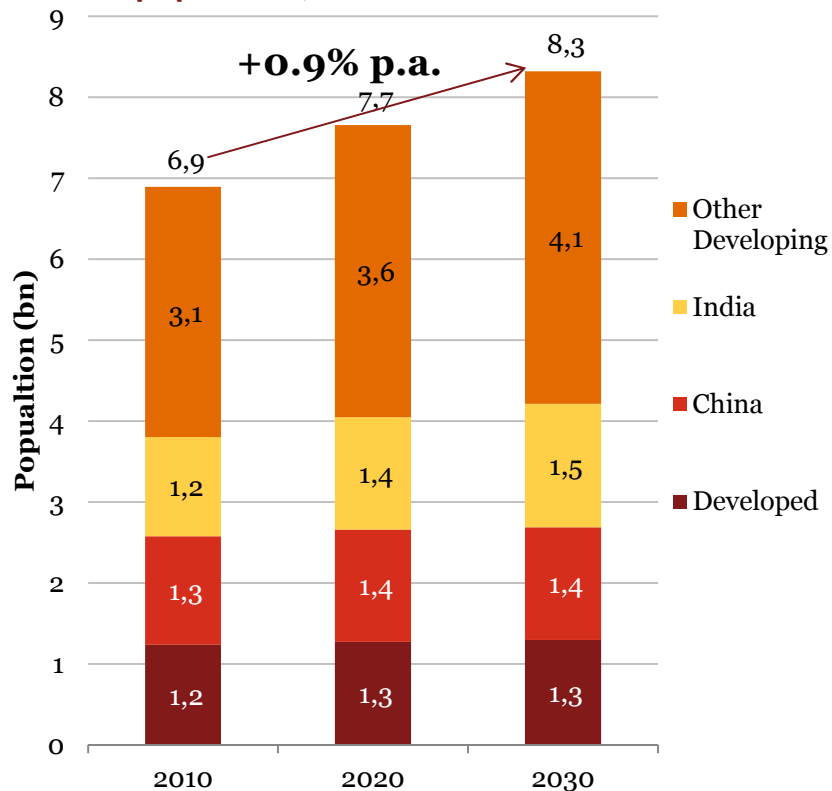


Long term food price inflation

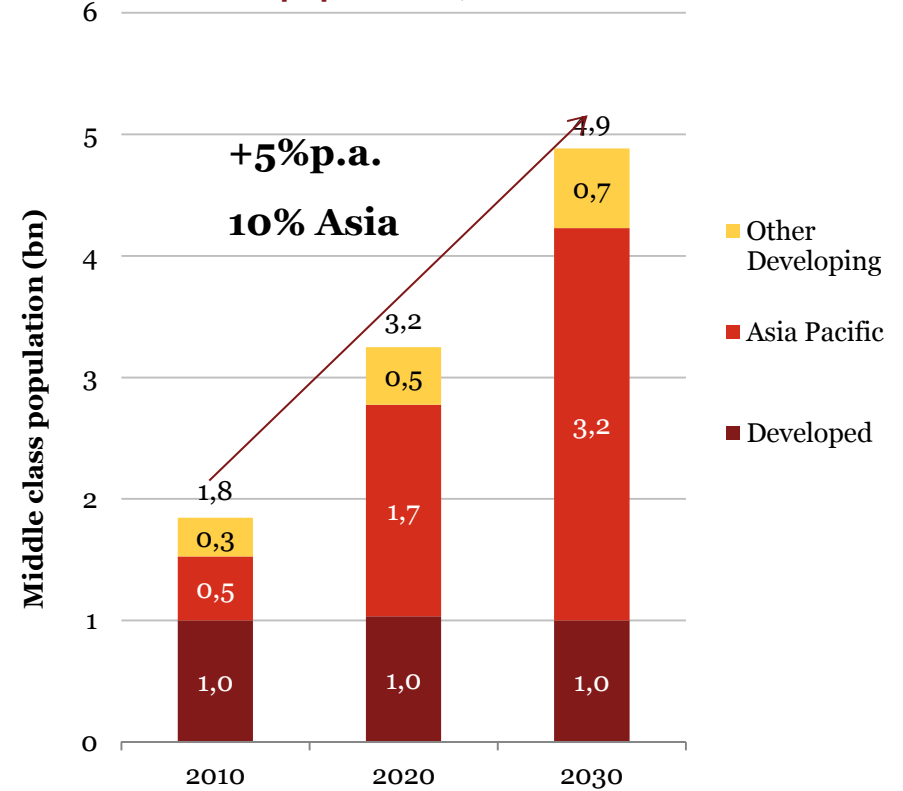


Growing population and wealth are key demand drivers over the next decades...

Global population, 2010 – 2030



Global middle class population*, 2010 - 2030

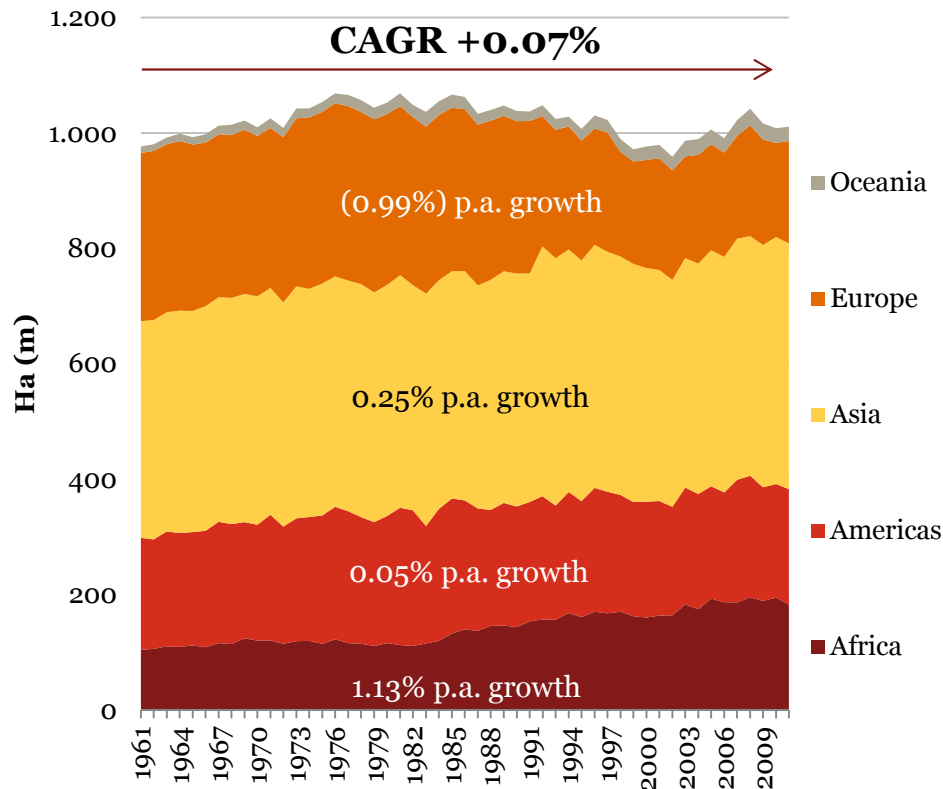


More calories
More meat / processed foods
More wasteful
A LOT more food !!!

Source: World Bank and United Nations

....however, supply will remain constrained, due to lack of land and reducing yield improvements

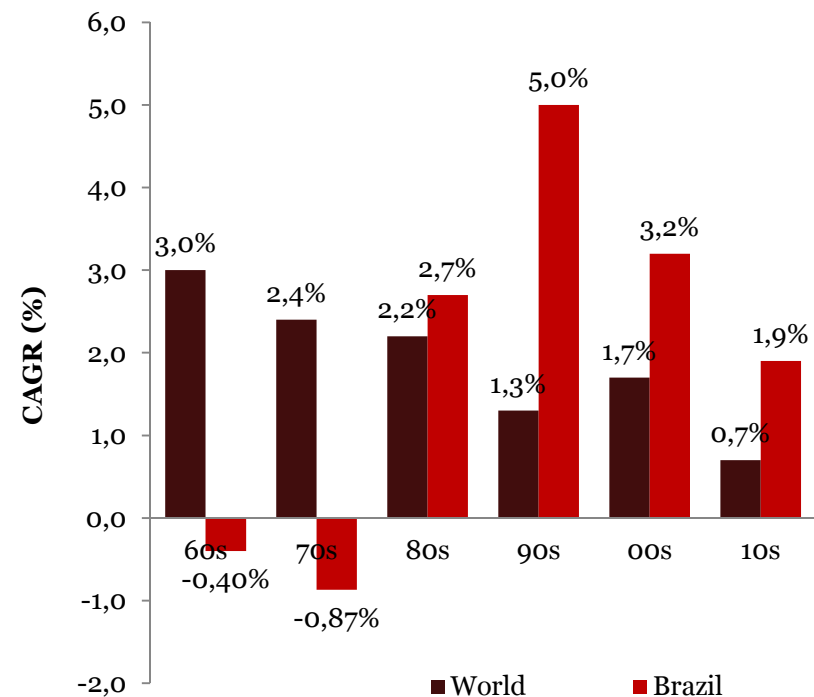
Agricultural land harvested for cereal and coarse grain, 1961 - 2013



Source: FAOSTAT

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Global cereal yield growth, 1960 - 2013

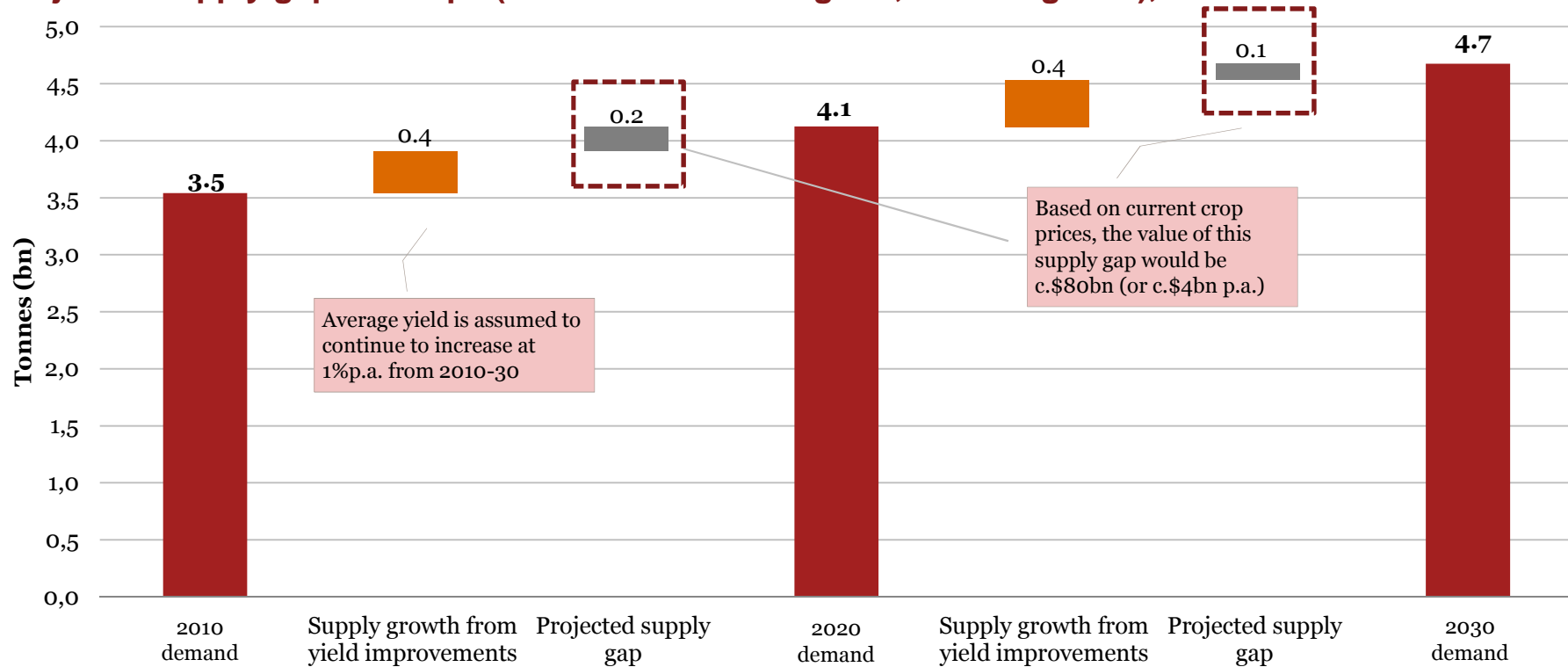


Brazil has land availability, variety of soils, good climatic conditions, companies with expertise and R&D

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Assuming these trends continue, there is likely to be a supply gap of c.300m tonnes by 2030 (or US\$80bn / US\$4bn p.a.)

Projected supply gap for crops (cereals and coarse grain, including feed), 2010-2030*

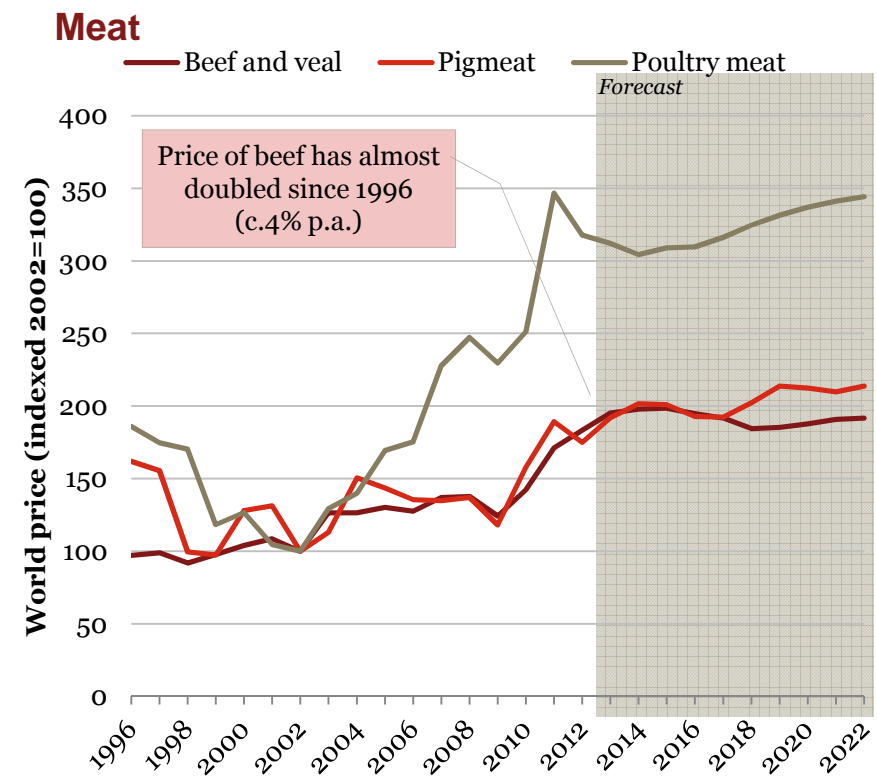
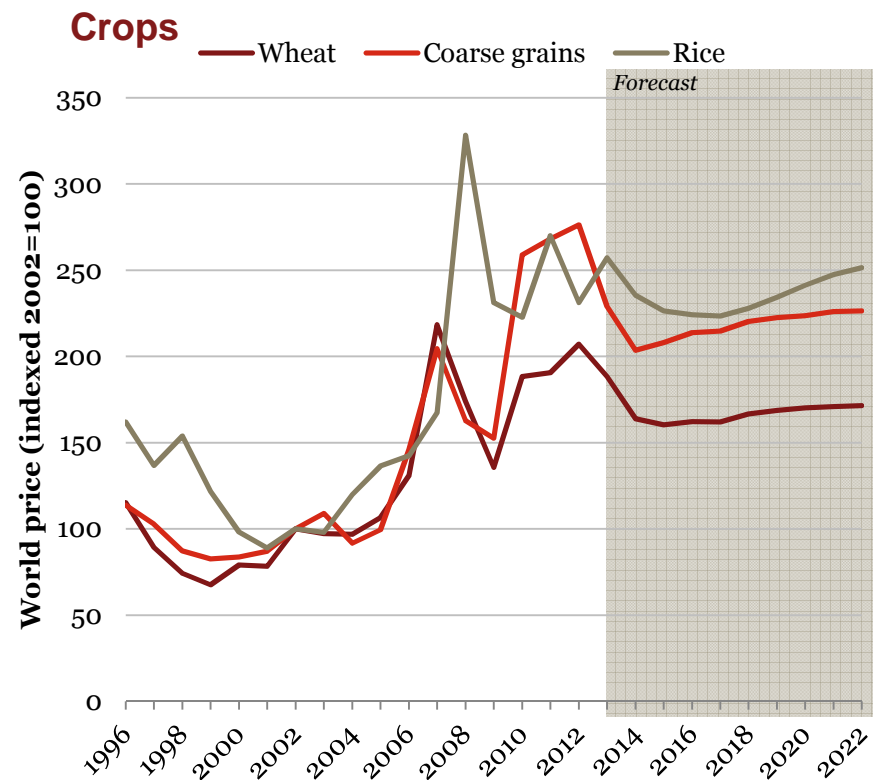


Note: *Methodology assumes that agricultural land area will remain flat through the forecast period. Although globally there is land available for expansion, inaccessibility provides a significant challenge. There is also a number of pressures on existing agricultural land e.g. urbanisation, climate change, competing demand from biofuels. If agricultural land capacity does change this will impact the size of the supply gap e.g. 0.2% increase p.a. in land area will reduce the supply gap from c. 0.3bn tonnes to c. 0.2bn tonnes over the forecast period

Source: FAOSTAT, Global Harvest Initiative, OECD, PwC analysis

This increasing demand and constrained supply are likely to lead to consistently high crop and meat prices

Historic and forecast real commodity price indices, 1996-2021



Source: OECD, PwC analysis

At the same time food scares, health problems and food waste needs to be managed

Safety / contamination scares



Health issues, e.g. diabetes and obesity



Substantial food wastage across the supply chain



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*What do investors look for in
agribusiness and how to
position your business*



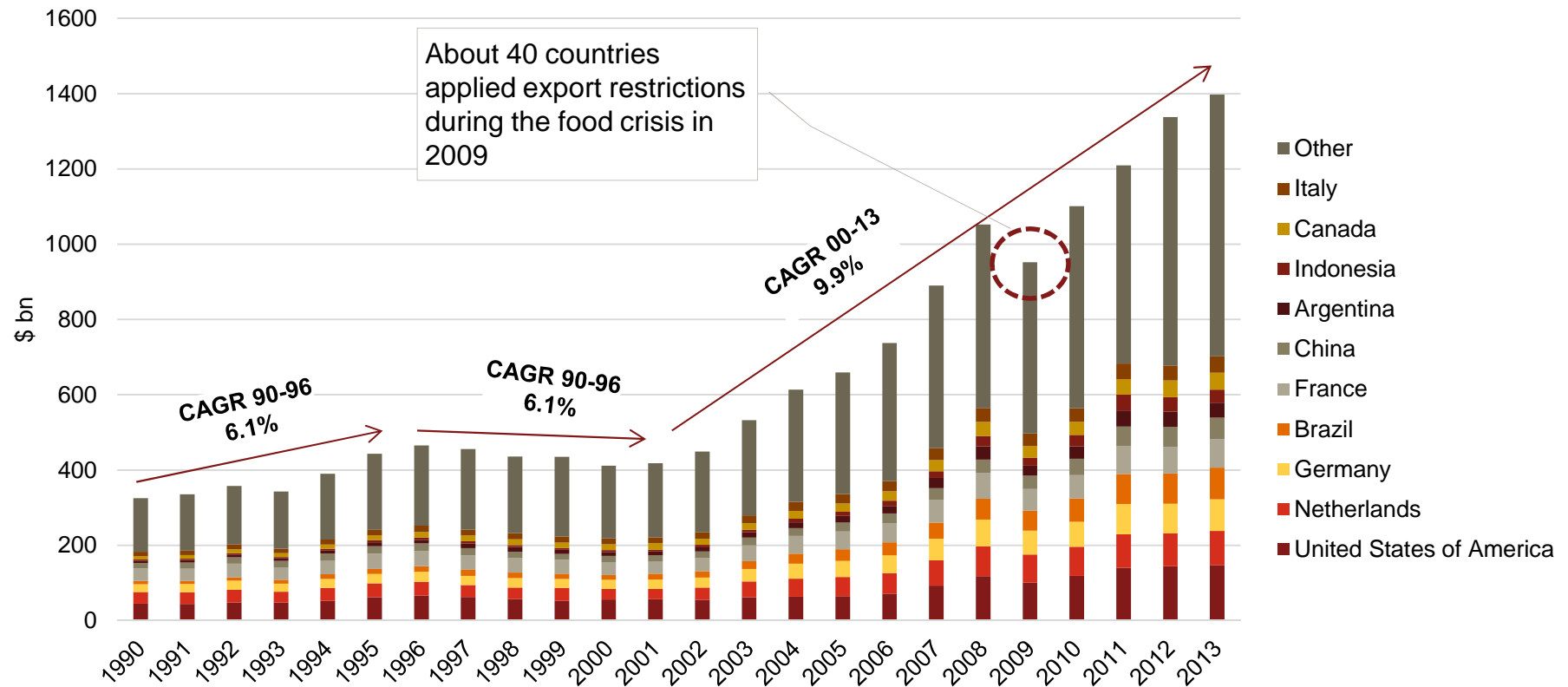
What does this mean as an opportunity

- **AVAILABILITY:** We need more food – **yields** need to increase (**technology**)
- **ACCESSABILITY:** Food needs to **move globally** and **supply chains** need to improve – **waste** needs to be **reduced**
- **AFFORDABILITY:** **Prices** will remain generally **high** (agriculture and food production can be profitable)
- **UTILISATION:** People want **safer**, more nutritious food, and no denying there will be a demand for more meat and processed food

The above will be key across all parts of the agriculture and food value chain
Companies that can be part of the above, will do well

Trade will help to optimise supply

Food and agriculture exports by country 1990 - 2013



Source: FAOSTAT

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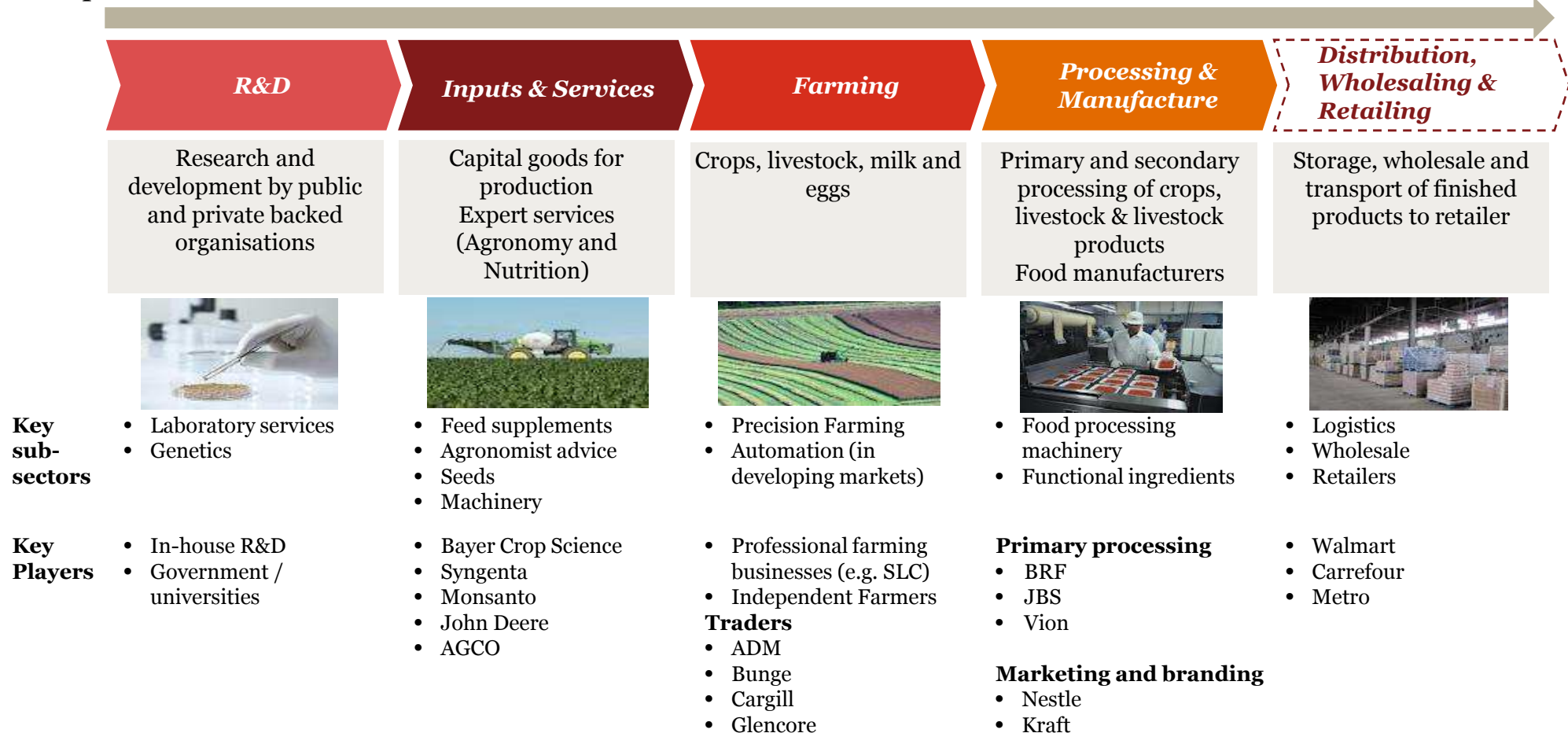
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The agriculture / food value chain presents a range of business models and opportunities

Upstream

Downstream



Interesting technology businesses as an example

Irrigation



Seed and grain processing



Animal (fish) vaccines



Interesting technology businesses as an example

Animal RFID tagging



Waste to food



Stem cell hamburgers



What investors consider when looking for a good food /agri investment (or how to position your own business)

Technology

- Does it offer latest technologies and yield enhancements?(R&D, automation, health benefits, etc.)

Commodity / Food focus

- Is the business focused on commodities / food types where demand outstrips supply?

International expansion

- Can it be internationalised, benefiting from increasing incomes, global supply routes?

Consolidation

- Is there opportunity to consolidate the sector and create scale; Can value be captured across the supply chain (upstream / downstream integration)

Operational improvements

- Are there manufacturing footprint and supply chain efficiencies to manage cost and price volatility?

Government / regulation

- Can it take advantage of government investment in the sector(e.g. Self sufficiently) or pre-empt /drive regulation trends, e.g. food safety?

In summary, what are we trying to solve and the opportunity it brings

- Given population growth, and importantly an emerging middle class, food is a key concern across the world
- Only the private sector can address this, and much of the expertise will come from international trade
- Brazil has huge potential to participate continuously in the world supply

Thank you...

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