

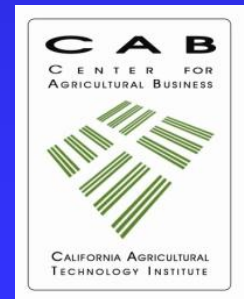
U.S. Specialty Crops & the Global Consumer Which Way Does the Wind Blow?

*Maximum Residue Limits Workshop
San Francisco, CA
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California State University, Fresno*



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US International Trade Specialty Crops : A Market Overview

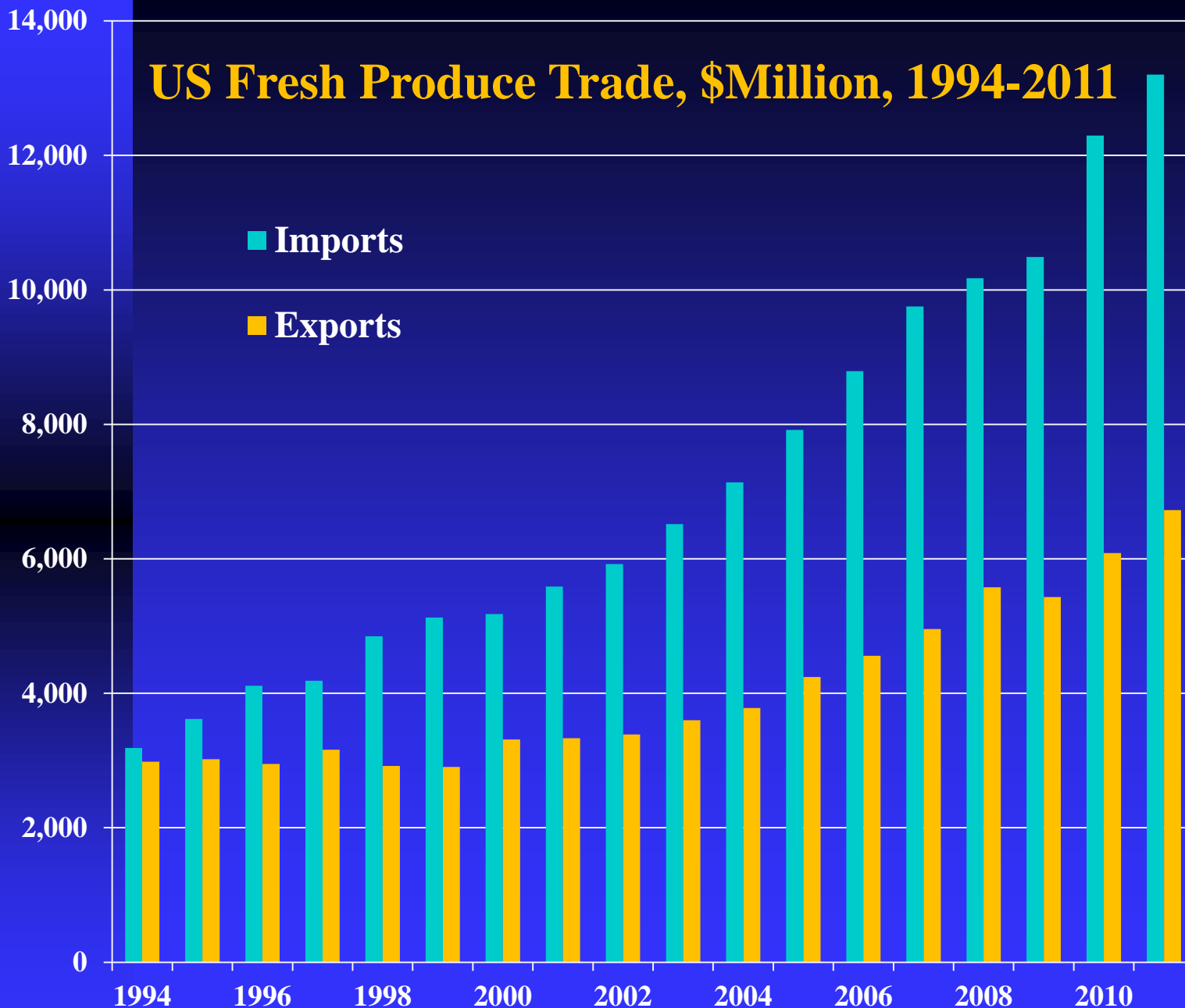
US Fresh Produce Trade, \$Million, 1994-2011

\$13.2 Bil

Imports

Exports

\$6.7 Bil



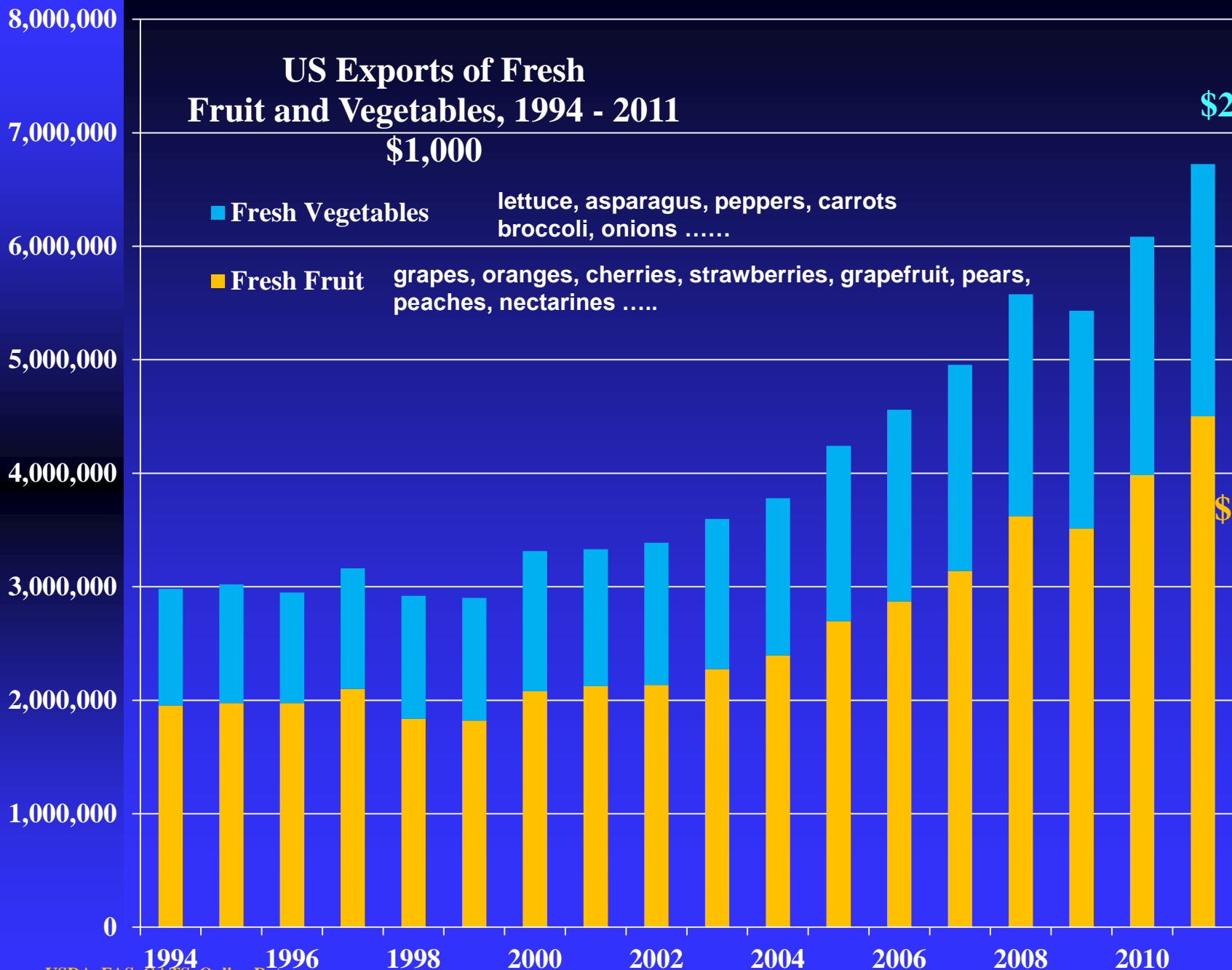
US Exports of Fresh Fruit and Vegetables, 1994 - 2011

\$1,000

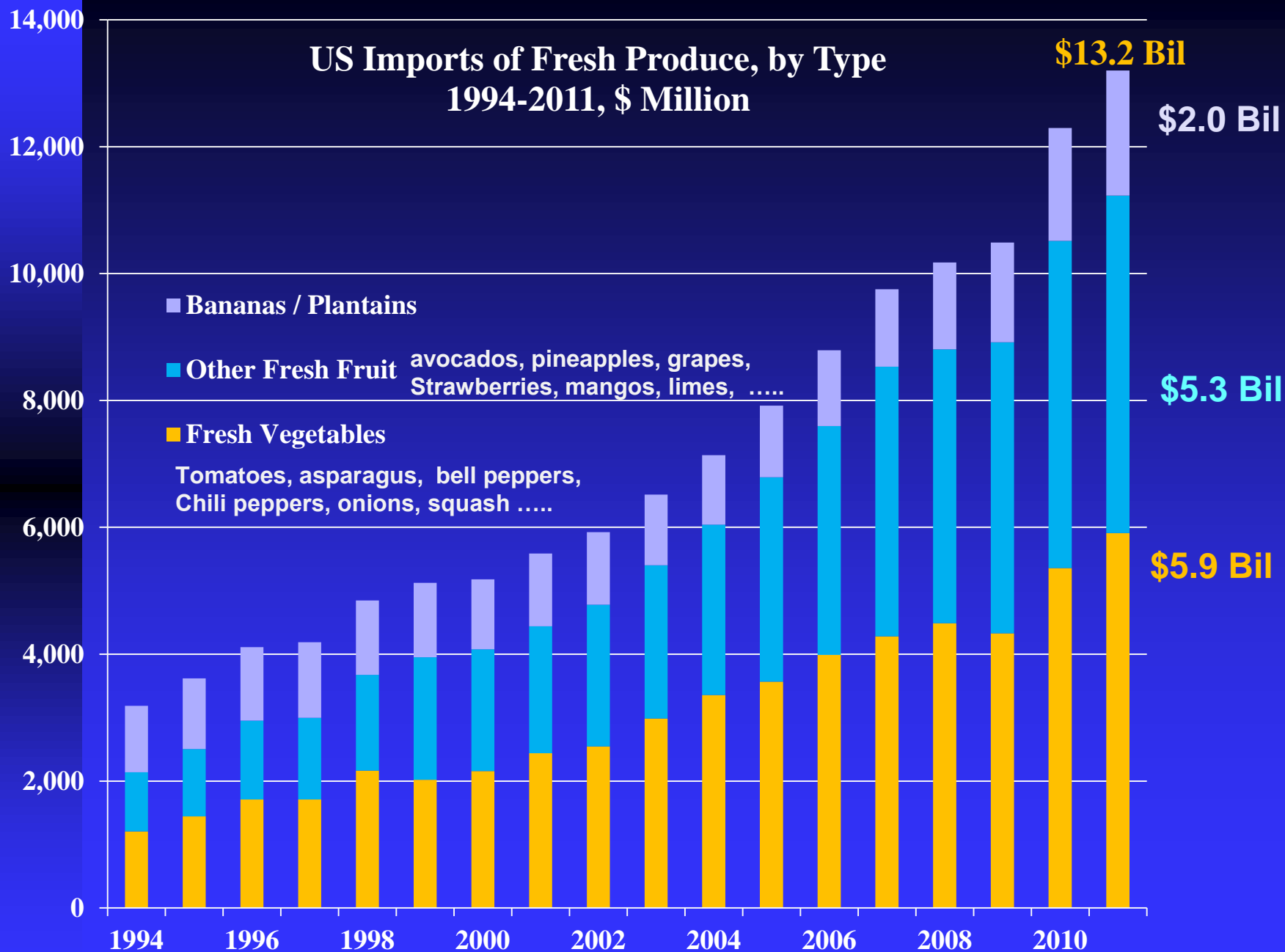
- Fresh Vegetables lettuce, asparagus, peppers, carrots
broccoli, onions
- Fresh Fruit grapes, oranges, cherries, strawberries, grapefruit, pears,
peaches, nectarines

\$2.2 Bil

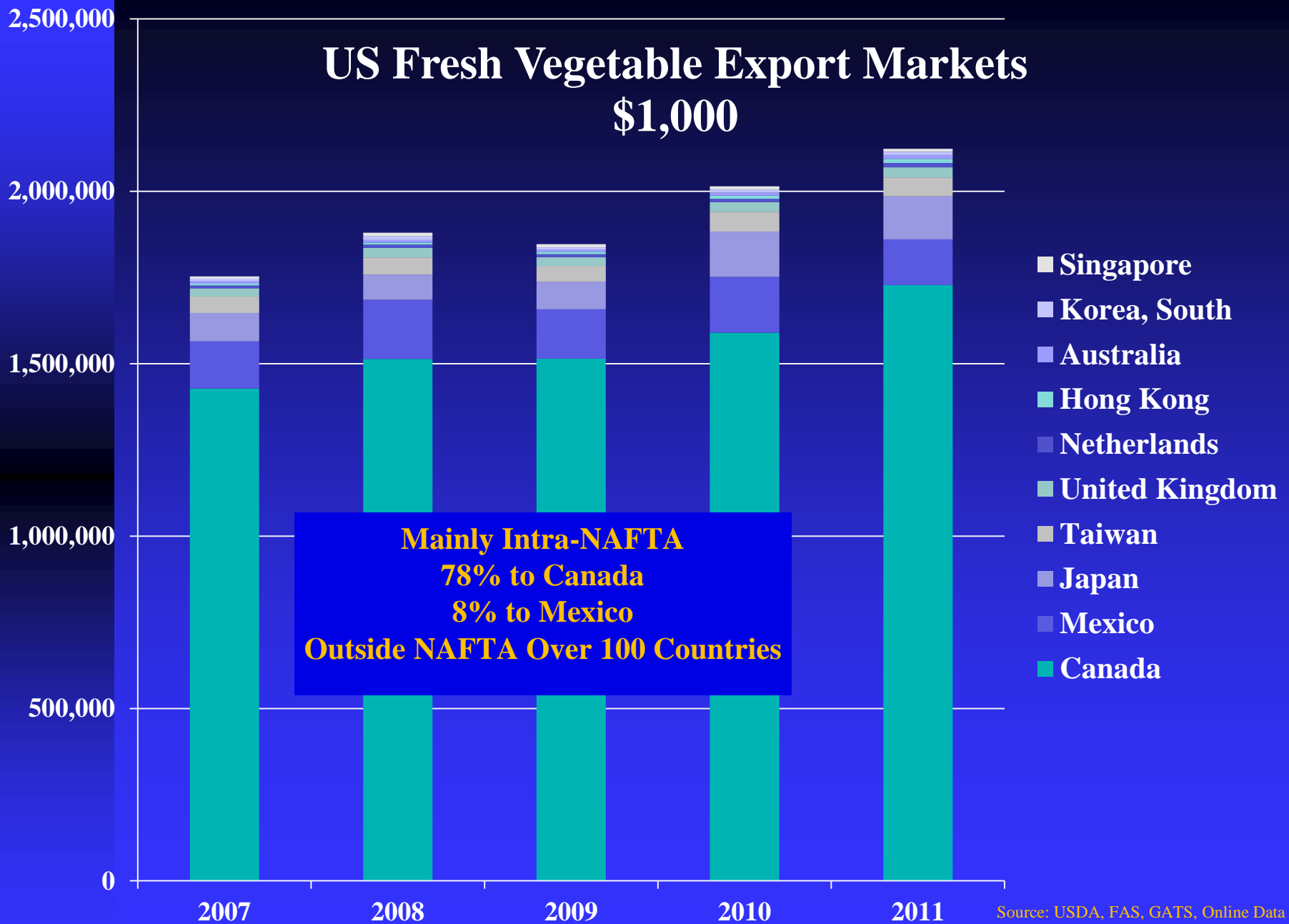
\$4.5 Bil



US Imports of Fresh Produce, by Type 1994-2011, \$ Million

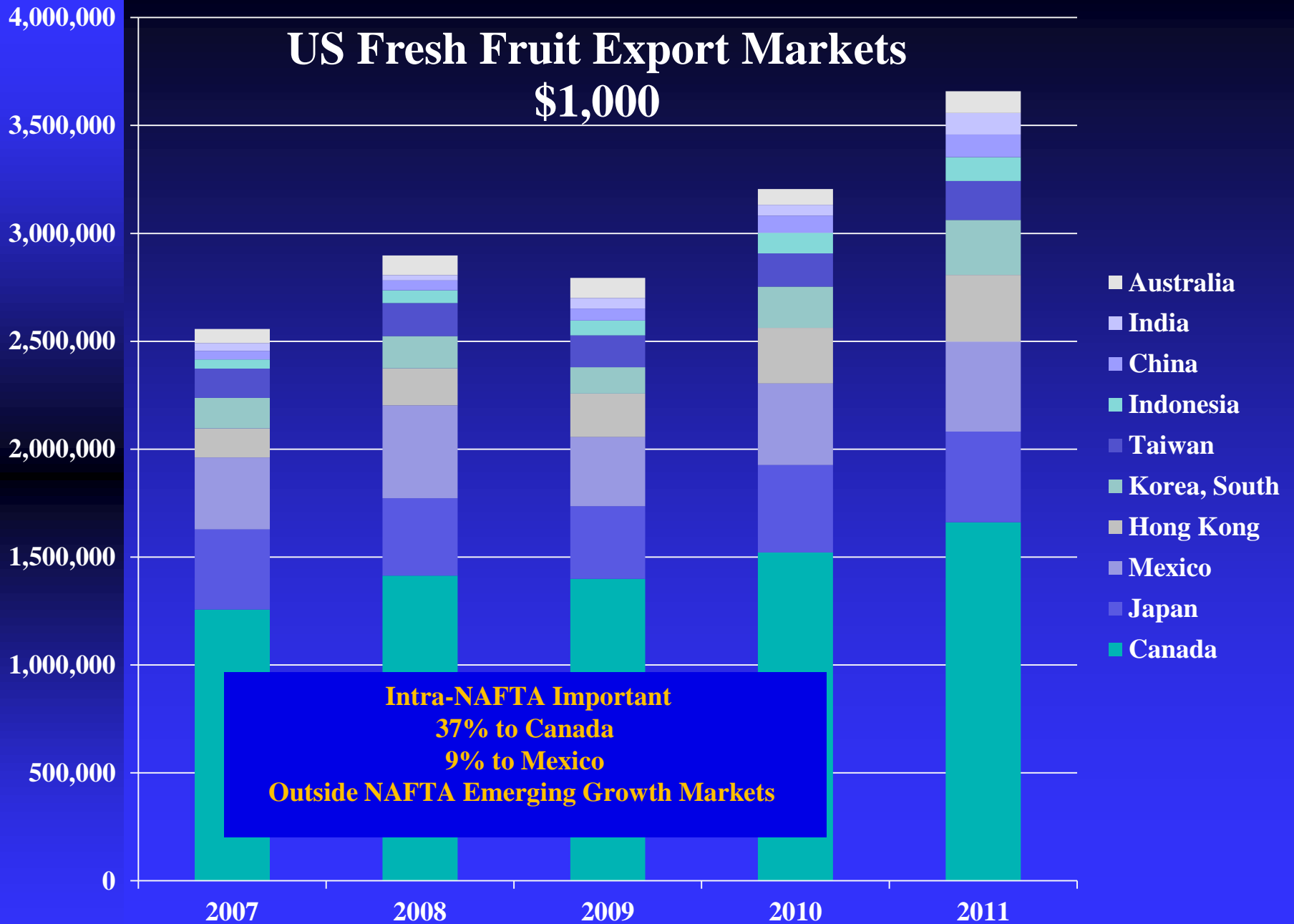


US Fresh Vegetable Export Markets \$1,000



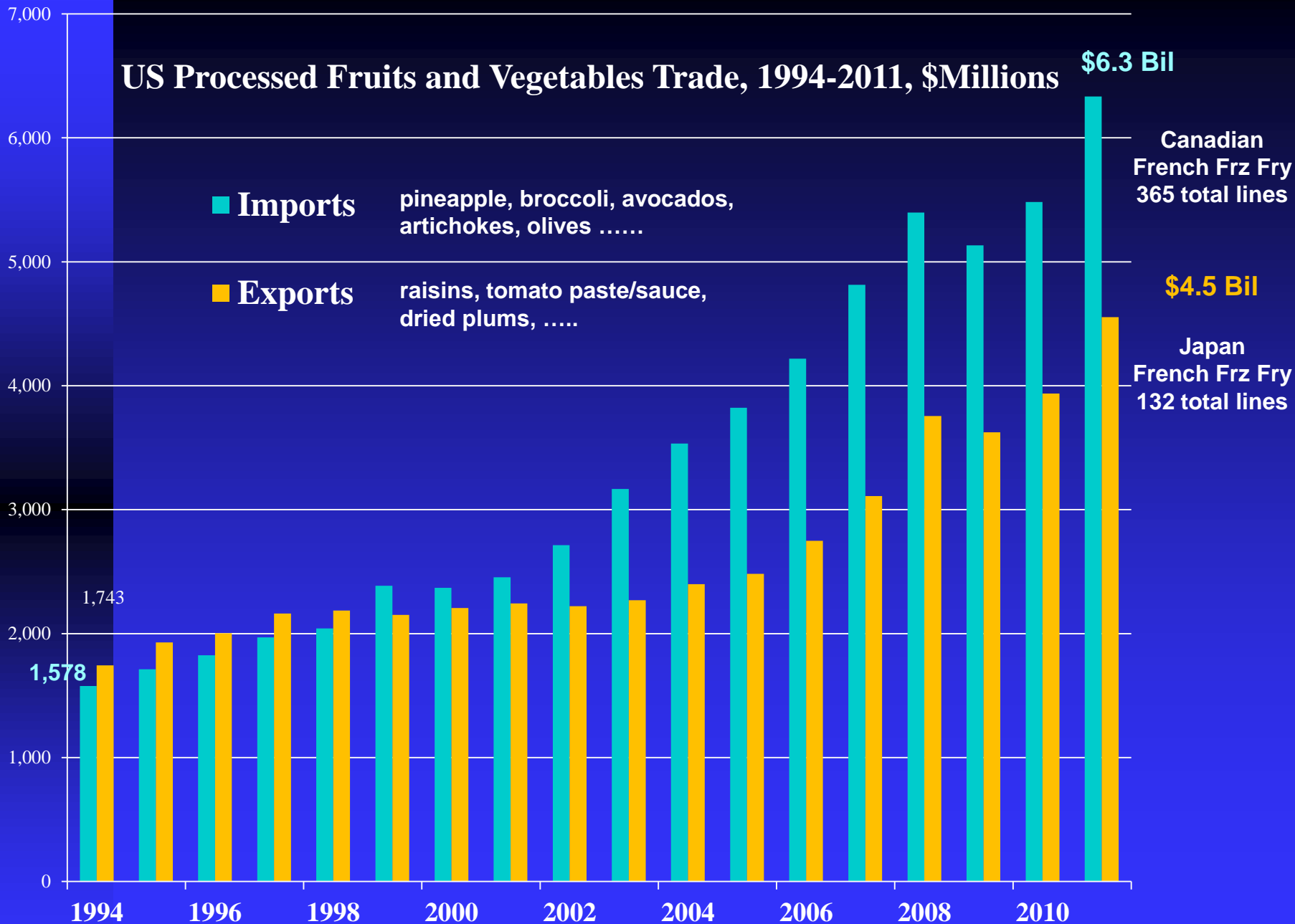
Source: USDA, FAS, GATS, Online Data

US Fresh Fruit Export Markets \$1,000



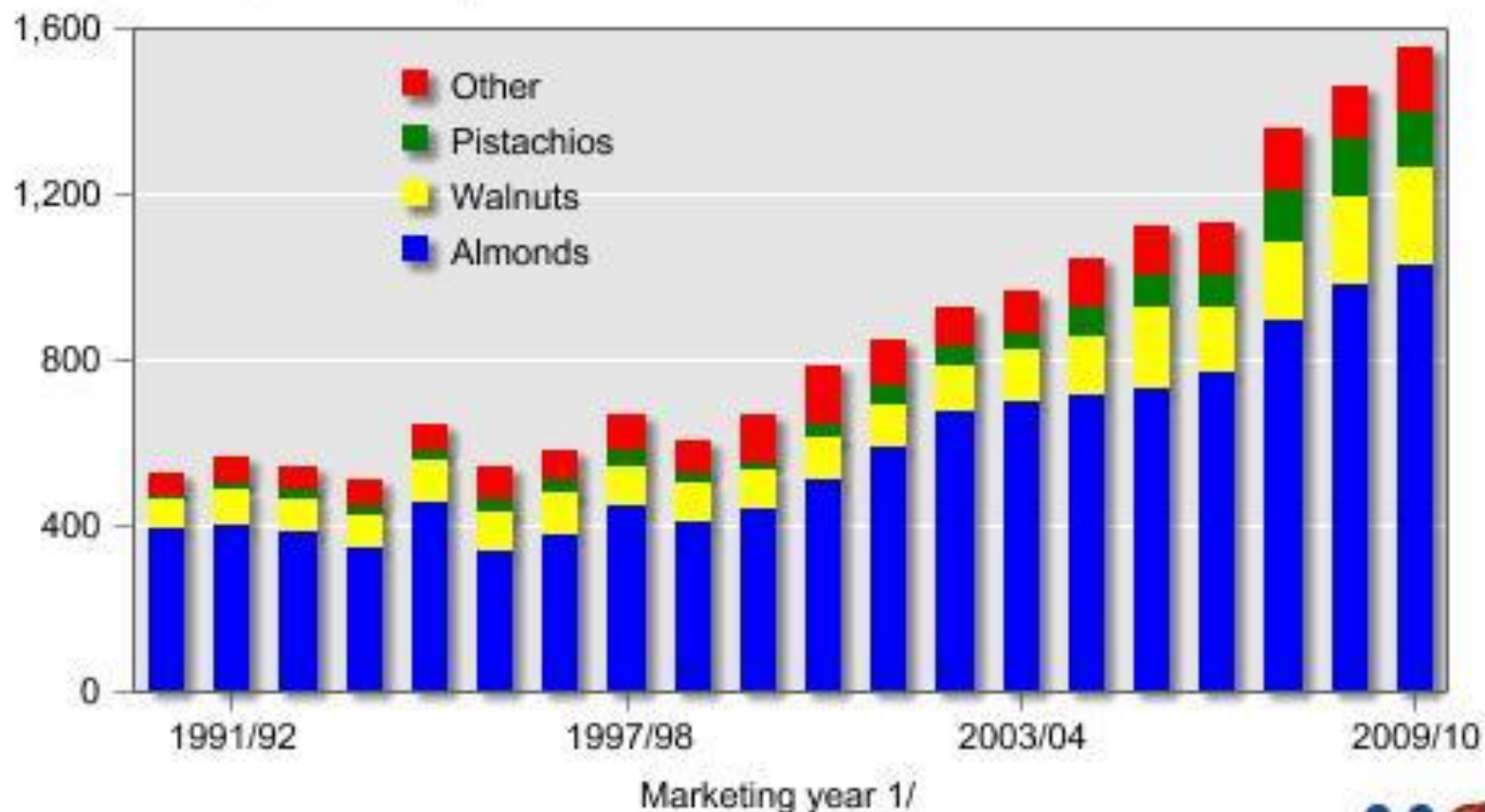
US Processed Fruits and Vegetables Trade, 1994-2011, \$Millions

- Imports** pineapple, broccoli, avocados, artichokes, olives
- Exports** raisins, tomato paste/sauce, dried plums,



Almonds account for largest share of U.S. tree nut exports

Million pounds (shelled basis)

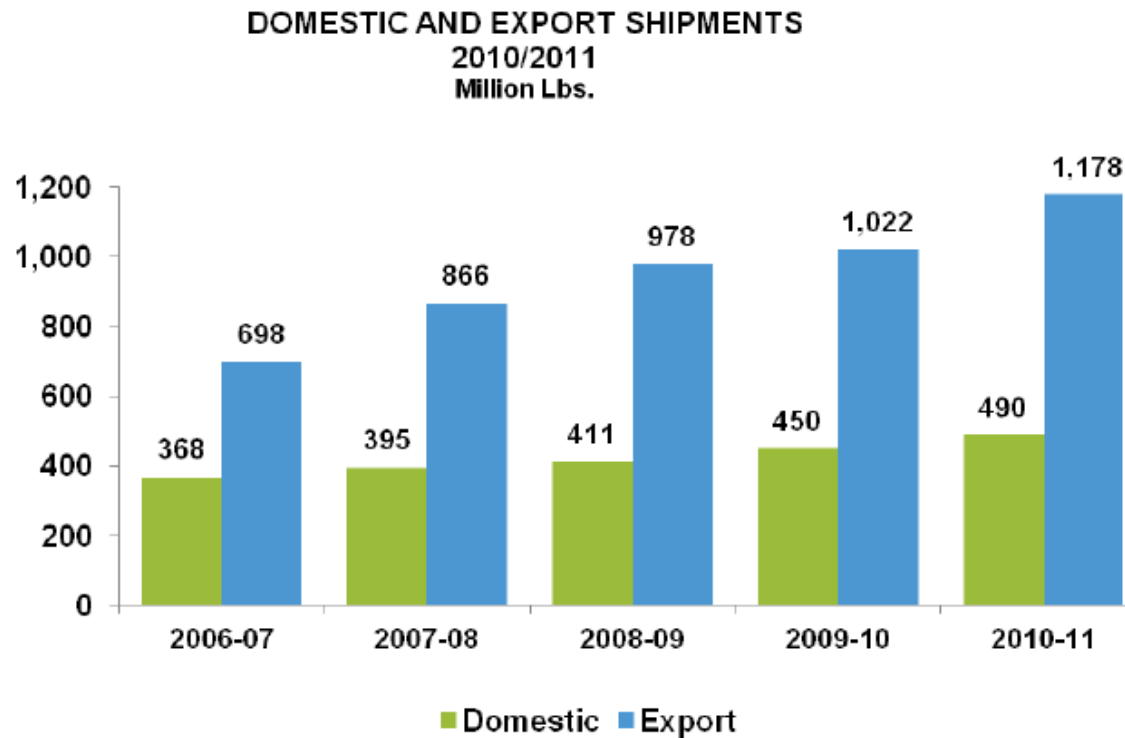


1/ Marketing years for tree nuts vary but generally start in the late summer.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Census Bureau.



Almonds



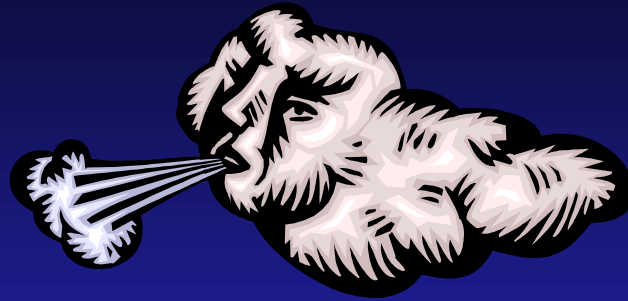
The top five export destinations were China, Spain, Germany, India and the United Arab Emirates (UAE). Shipments to China rose by 26% to 168 million pounds in 2010/11.

The Hypothesis

- The relative competitiveness of the US is in large part because more than being labor-intensive Specialty Crops are information/knowledge technology-capital- and marketing intensive. Areas where the US has traditionally held the advantage.
- But that will continue only with great effort if we want to expand markets beyond the mature and more comfortable areas.
- We are not the low cost producer in most cases, we need to be the producers of highest quality and the best handlers, shippers and marketers to prosper

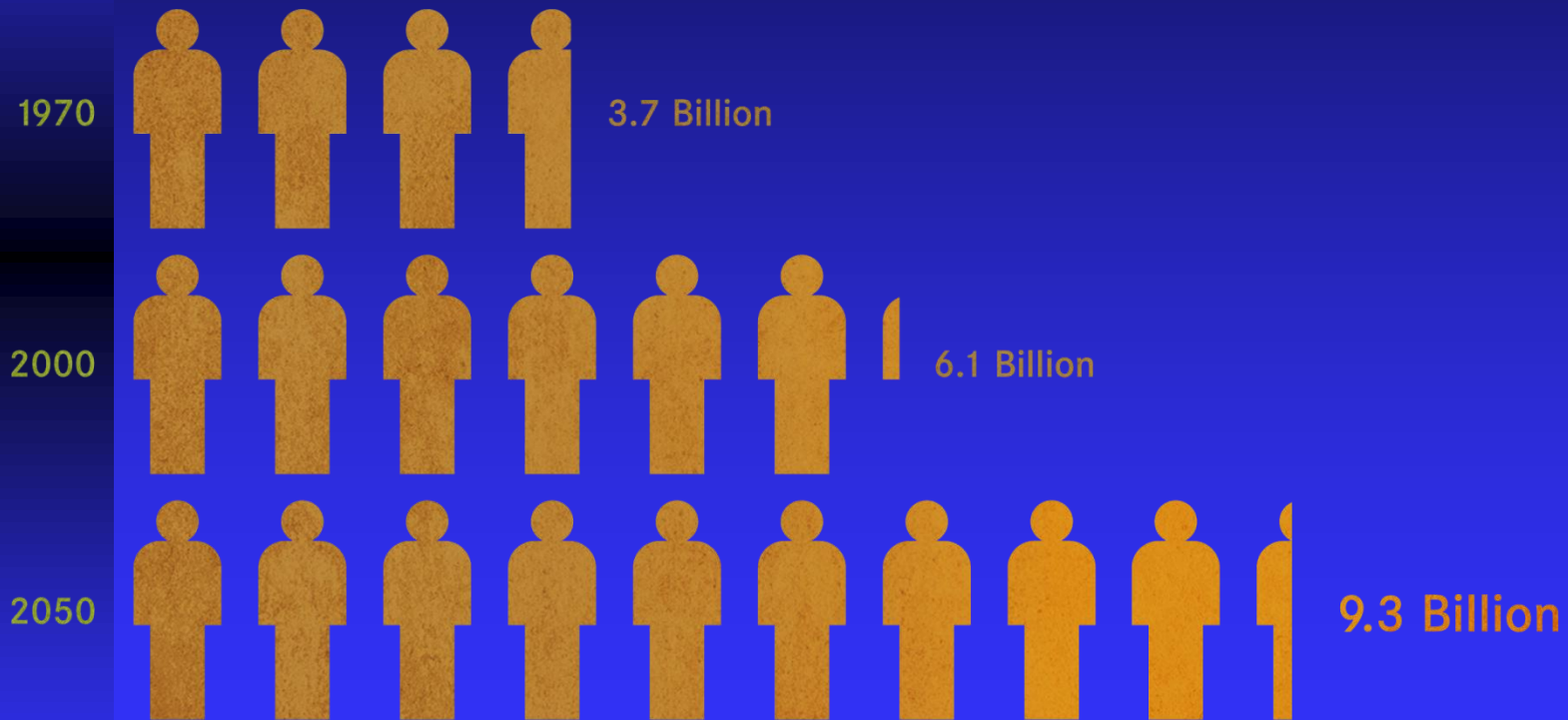
Where are the Markets For the Future ?

Tailwinds Blowing in Favor of Growth in US Exports



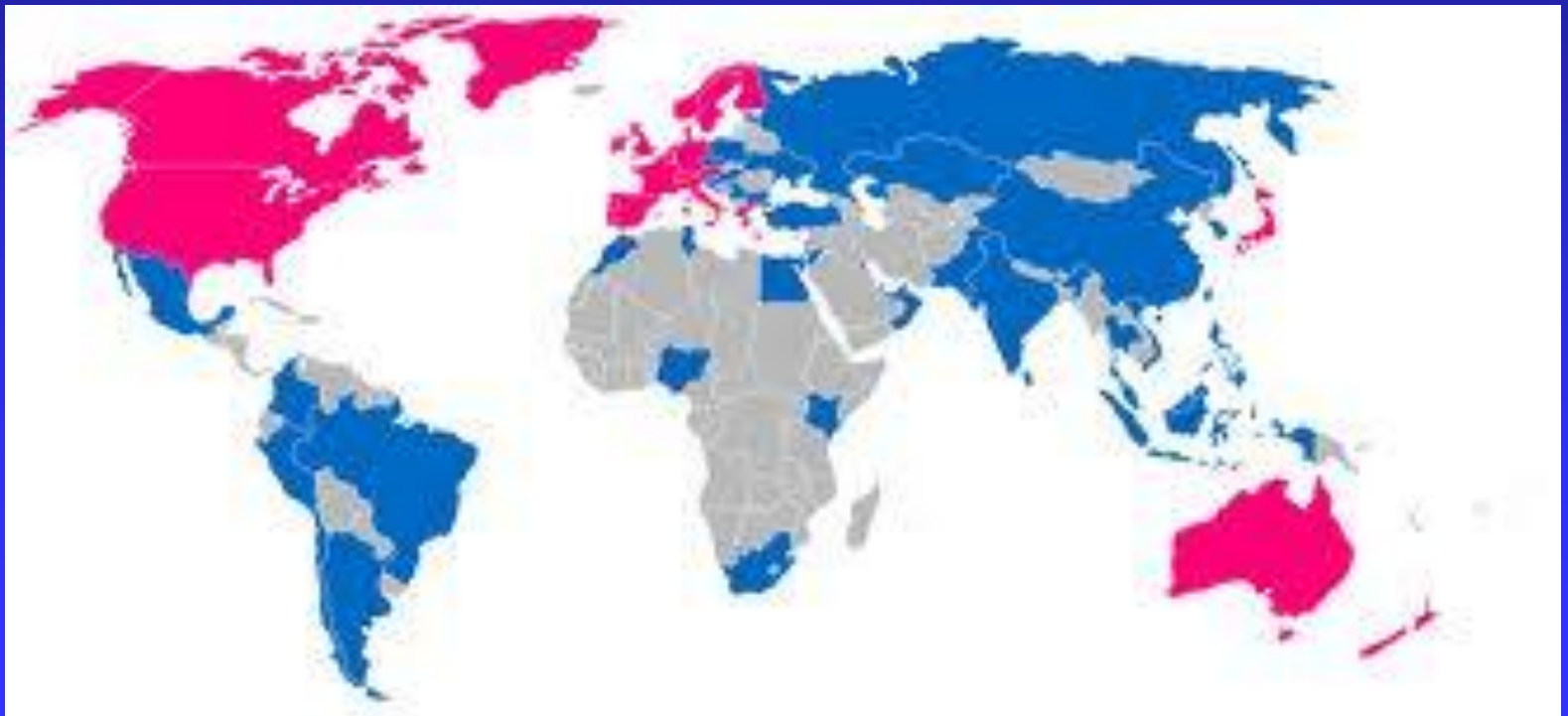
- Increasing Population, Future Consumers
 - Future Economic Growth
 - Exchange Rates/Relative Prices

World Population Growth = Demand

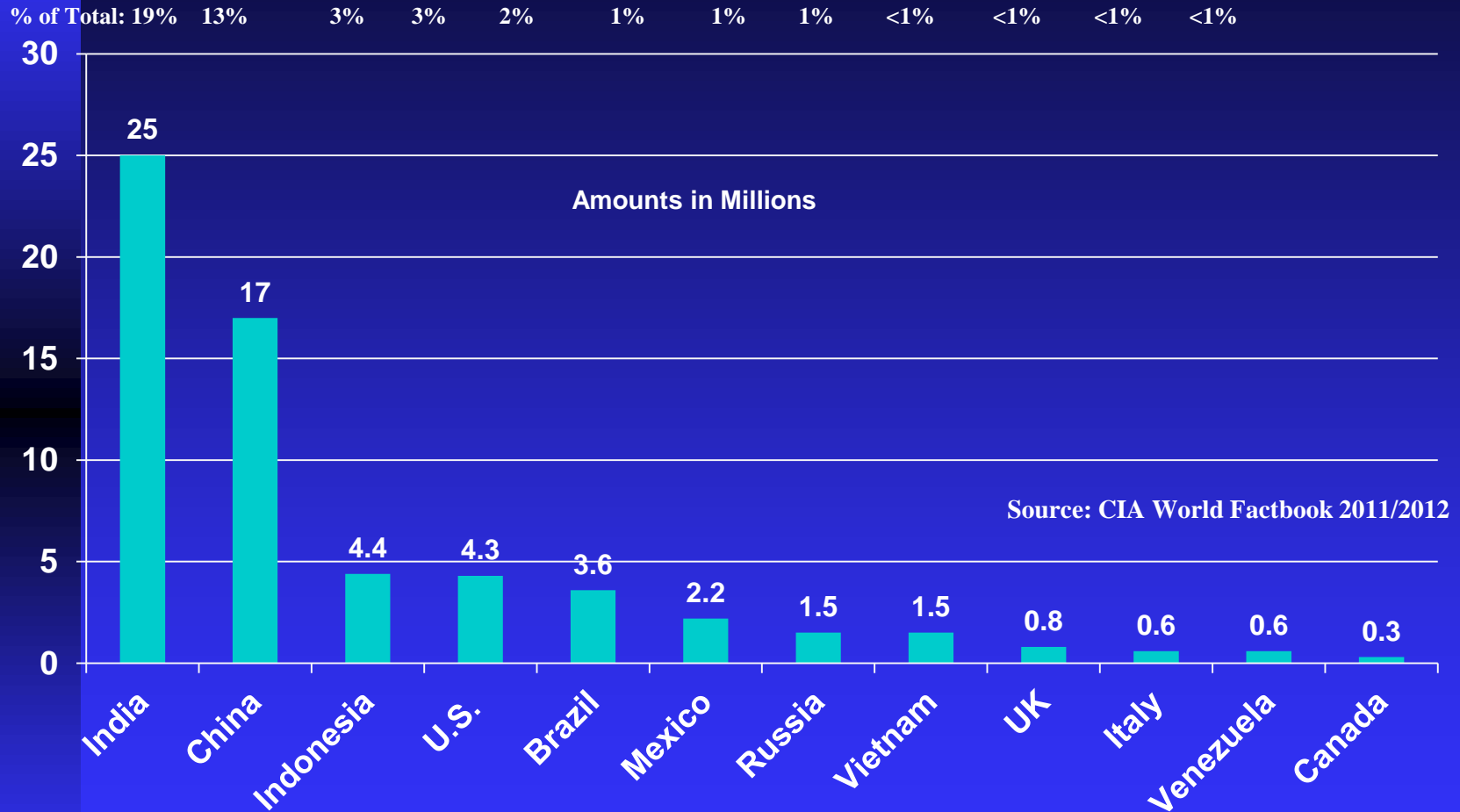




Mature **Markets** in Pink, **Emerging** in Blue

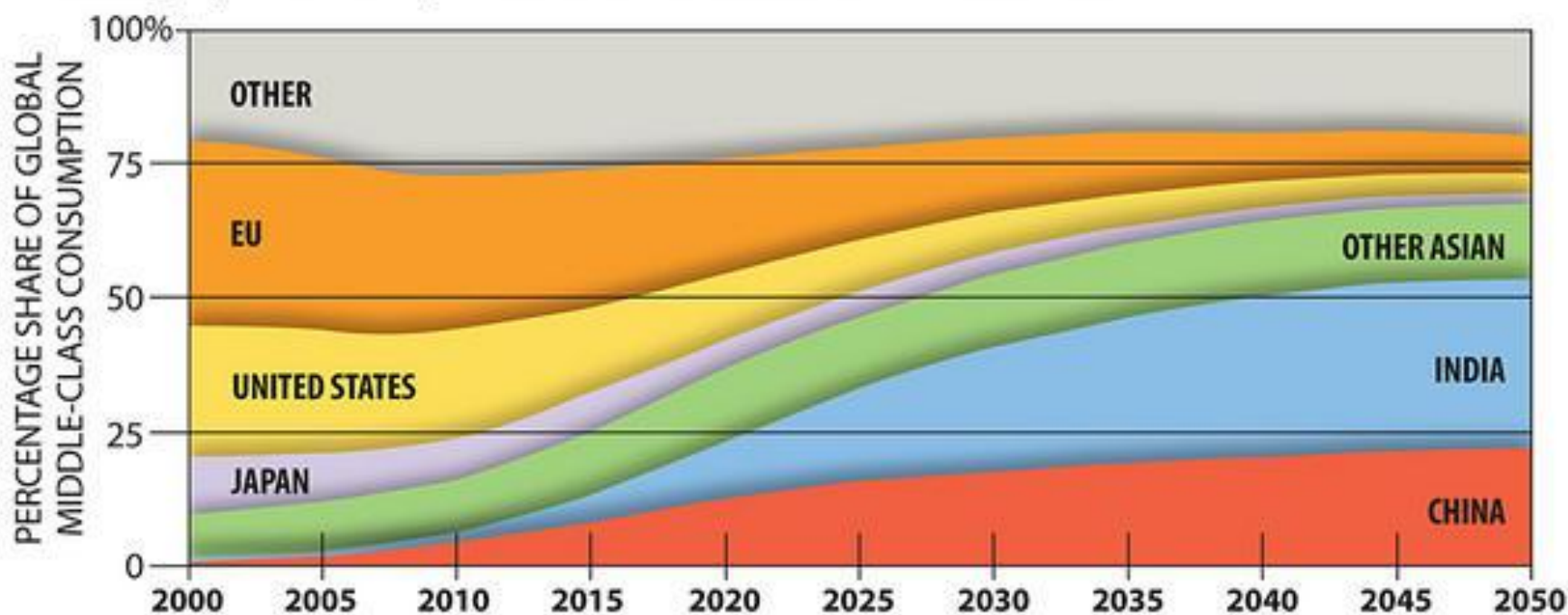


Global Annual Births



The global middle-class wave

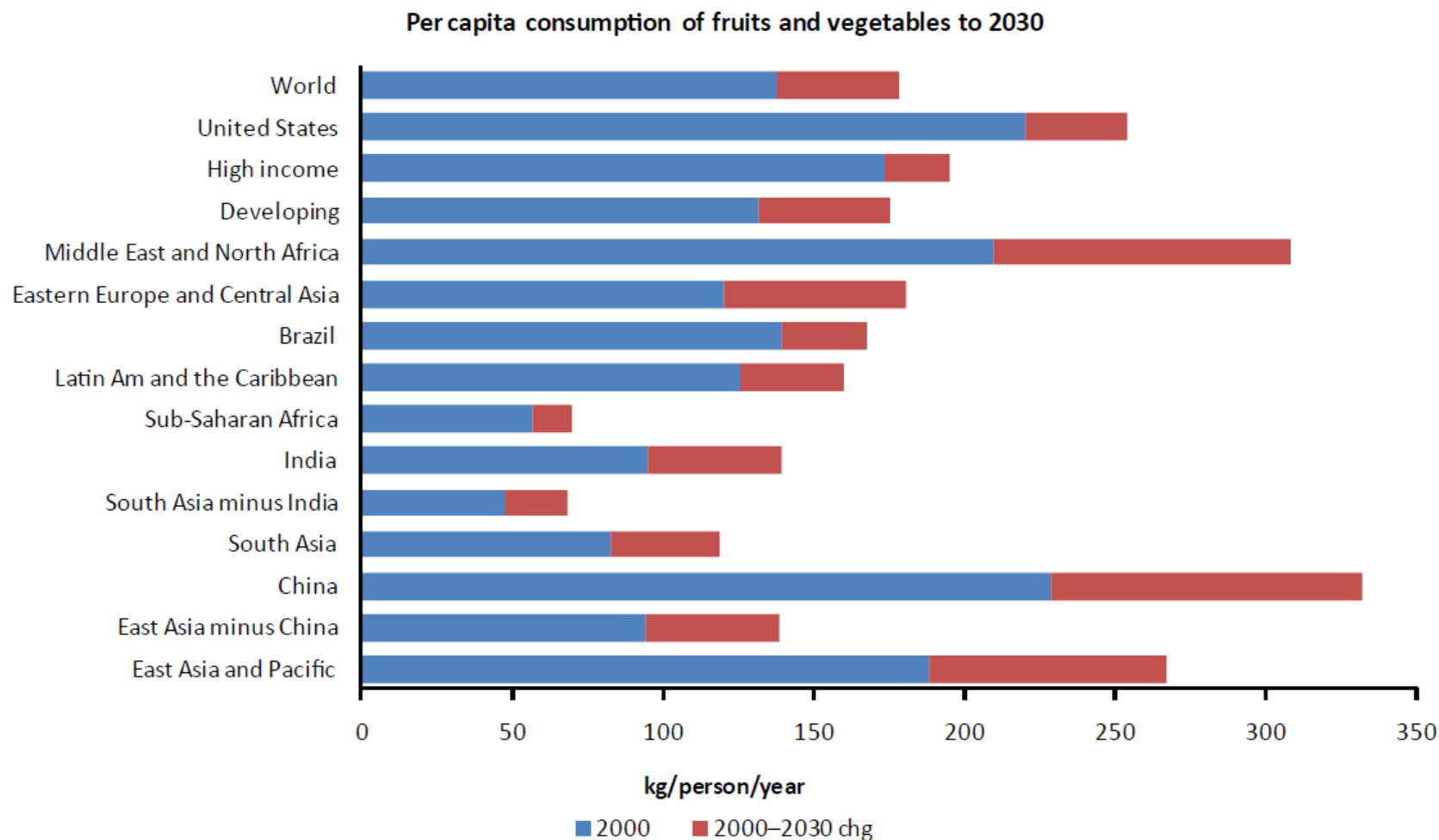
Global middle-class consumption will shift heavily toward China, India, and other Asian countries (excluding Japan) as the high-income countries see their share decrease.



SOURCE: H. Kharas (2010), 'The Emerging Middle Class in Developing Countries,' OECD Development Centre Working Paper No. 285

RICH CLABAUGH/STAFF

Figure 3—Growth in per capita fruit and vegetable consumption to 2030



Source: IFPRI, Feb. 2011, Impact Model Projections

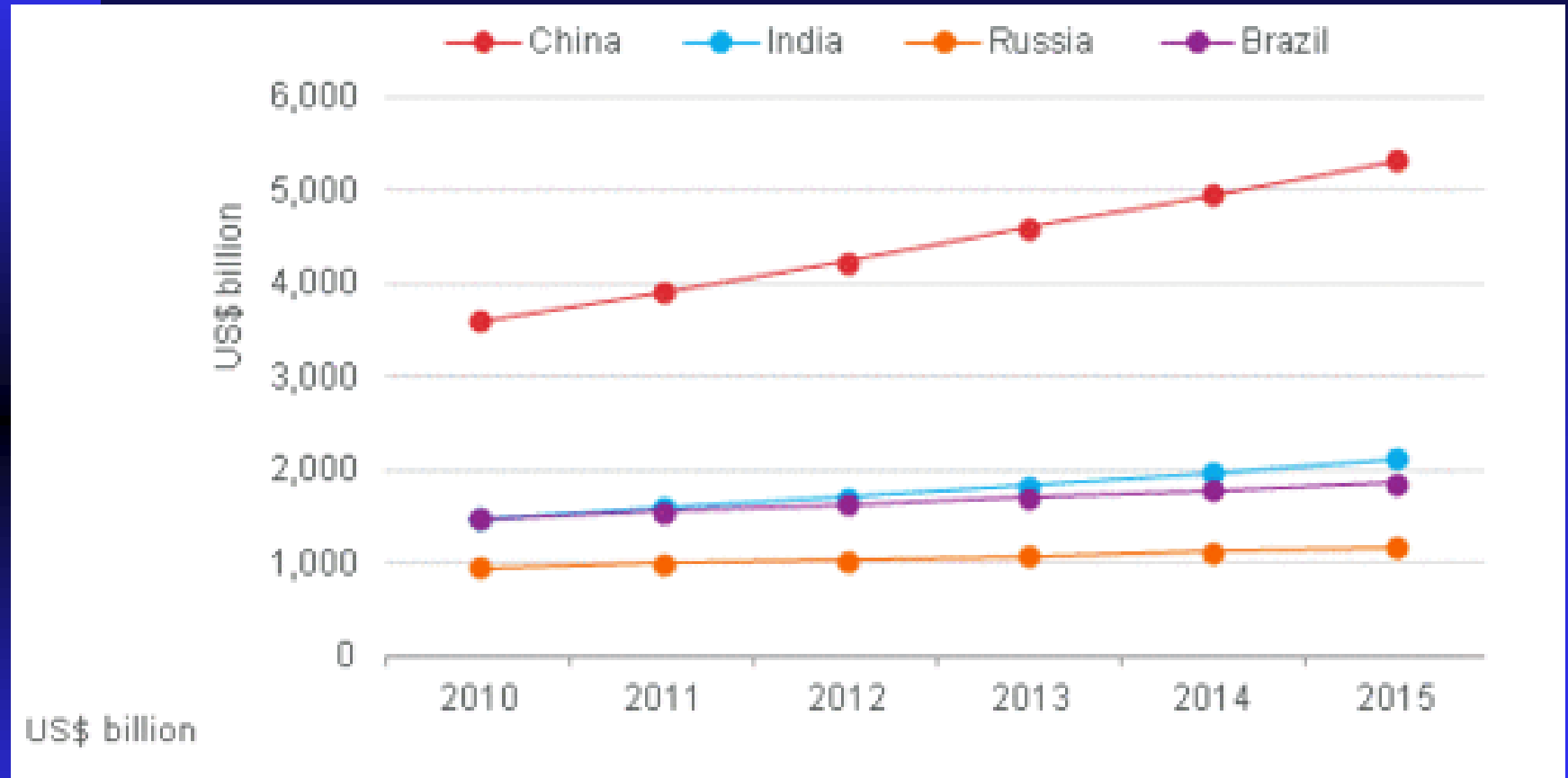
Monoculturalizing Changing Demand For Food and Fiber



Markets are Evolving



Real Annual Disposable Income in BRIC Countries: 2010-2015



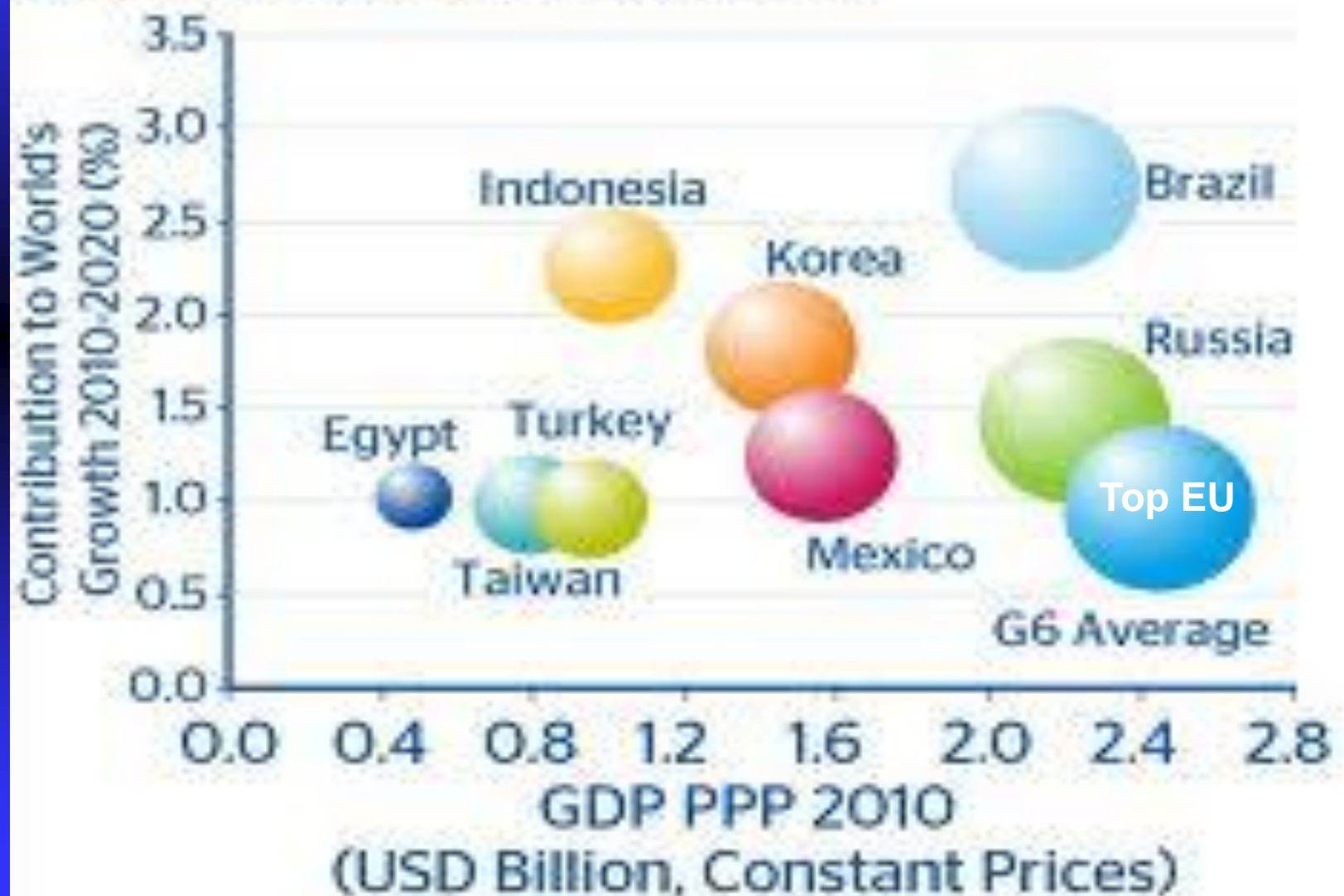
Source: Euromonitor International from national statistics

Note: Annual disposable income expressed in Constant 2011 prices (Fixed 2011 Exchange Rate); Data for 2012-2015 are forecast.



Source: The Institute of Grocery Distribution

EAGLEs except China and India:
Current GDP size and contribution (%)
to World's growth 2010-2020



The Dragon and the Elephant Leading the Way?

The Hungry Dragon



Income Per Capita

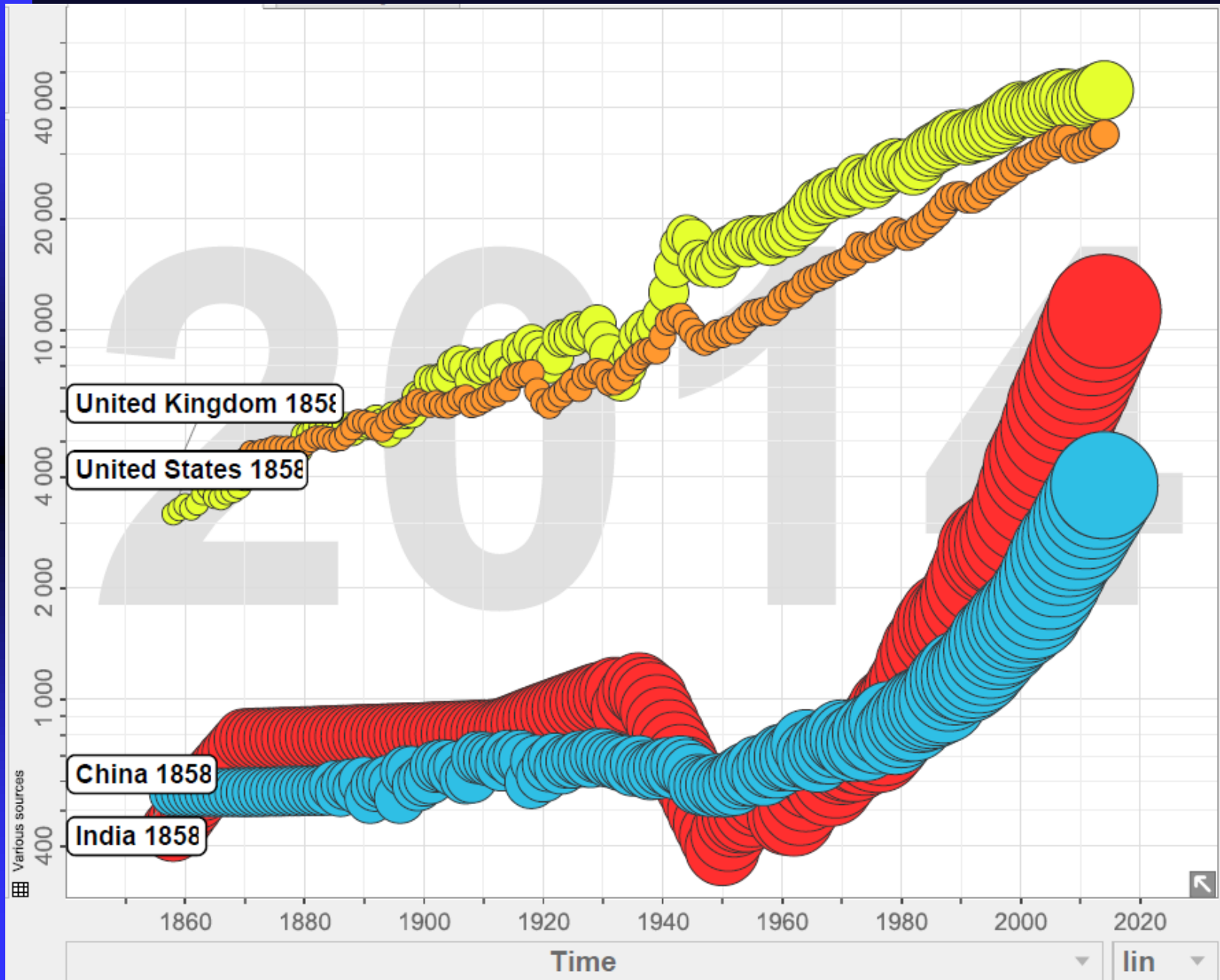


Exhibit 6. The Middle-Class Population of Emerging-Market Cities Is Burgeoning

Approximately 170 people join the middle class every minute

Middle-class and above-middle-class population (millions)



Approximately 460 million people in emerging-market cities will enter the middle class between 2010 and 2015, an increase of 70 percent

2010 2015

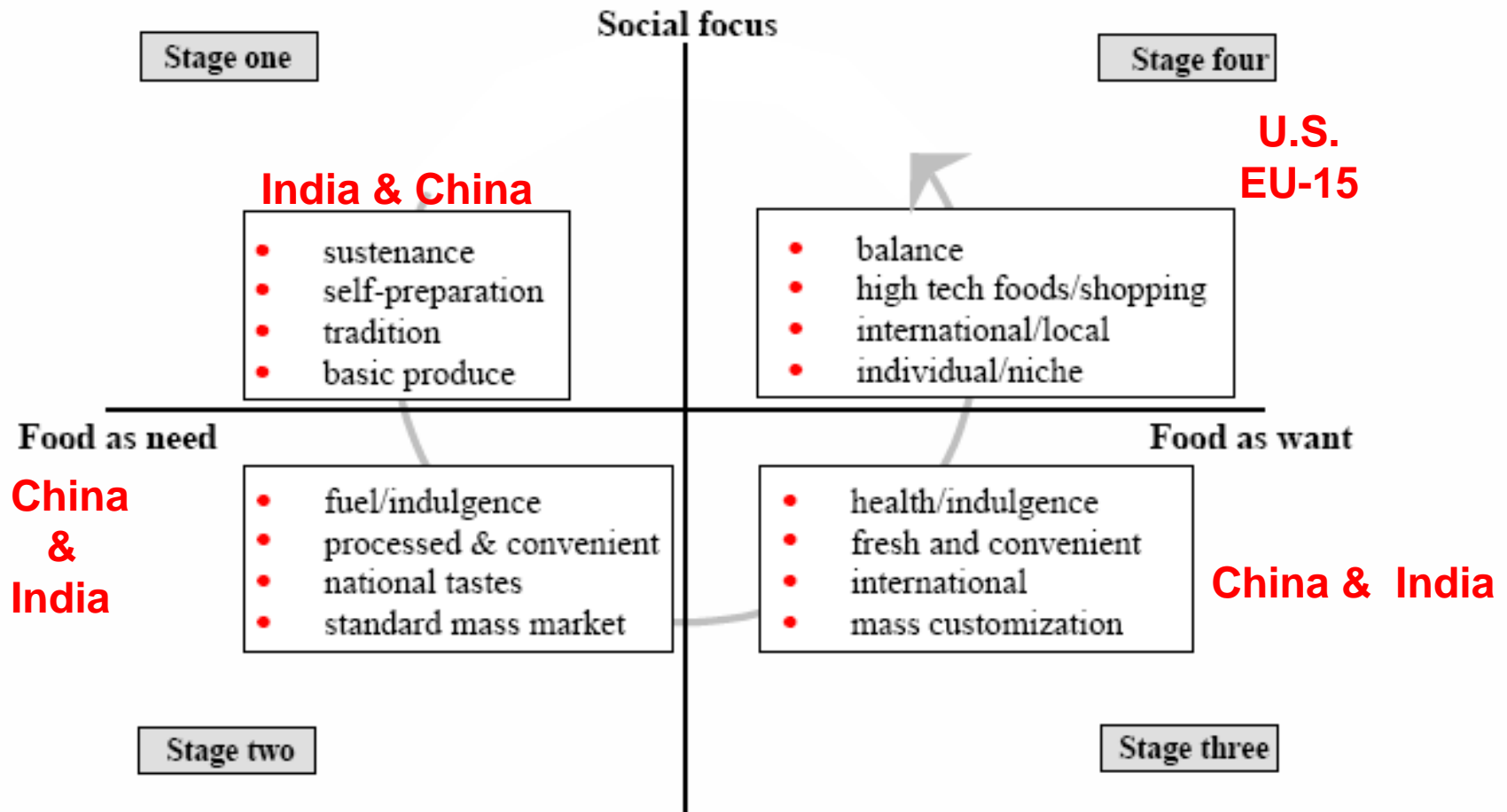
Sources: Economist Intelligence Unit; Brazilian Institute of Geography and Statistics (IBGE); Instituto Nacional de Estadística y Geografía (INEGI); BCG China population and income forecast database, 2010; "The Great Indian Middle Class," National Council of Applied Economic Research (NCAER), 2004; BCG analysis.

¹Middle-class households are those with annual income exceeding \$5,000.

²Middle-class households are those with annual income exceeding \$10,000.

Effective Demand

Food market stages

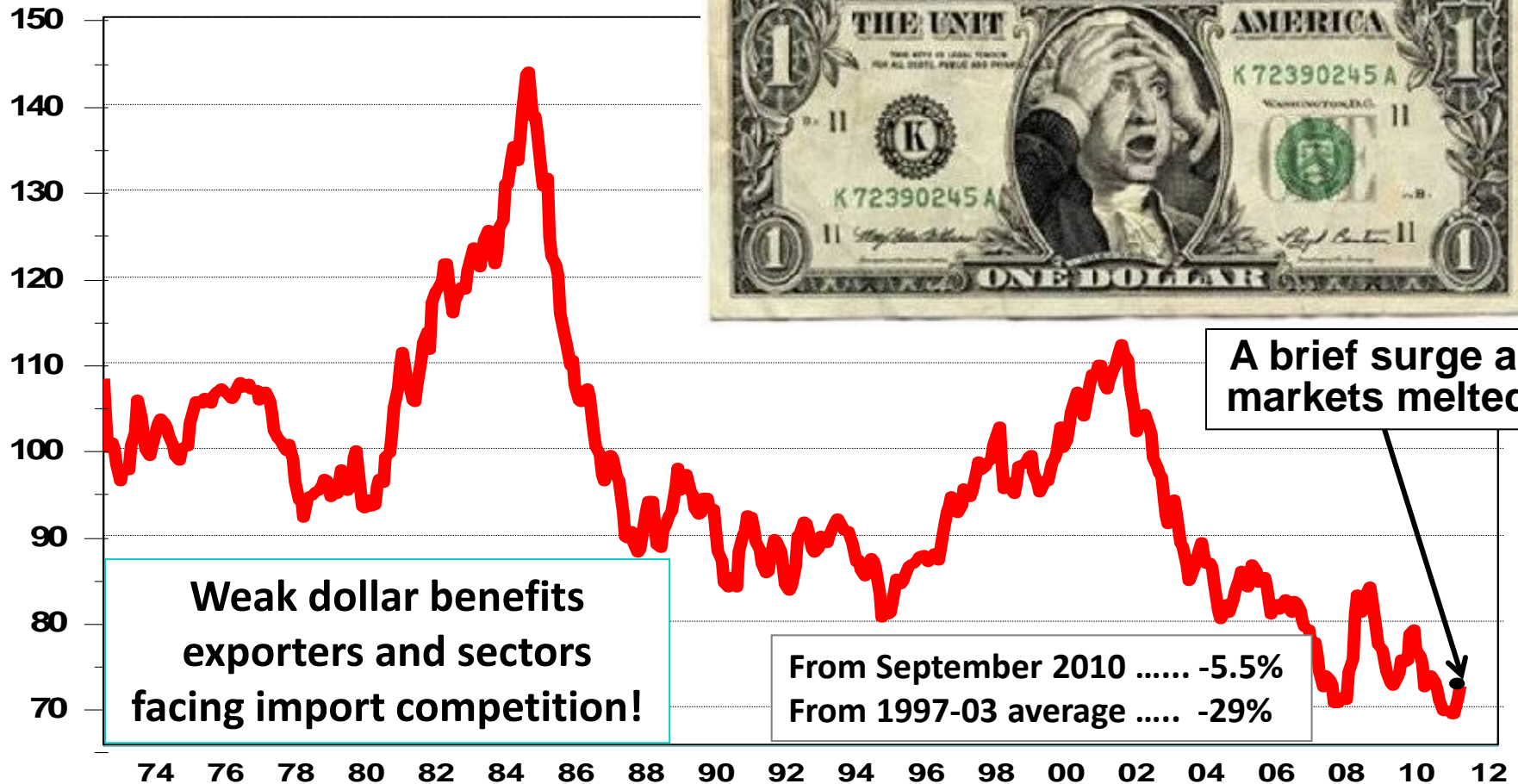


Household income levels grow approximately five-fold between each stage and the next. The following can serve as a rough guide: households (and countries, based on average household incomes) enter Stage 2 at \$2,500, Stage 3 at \$12,500, and Stage 4 at \$62,500.

Dollar Erosion Has Boosted Foreign Effective Demand

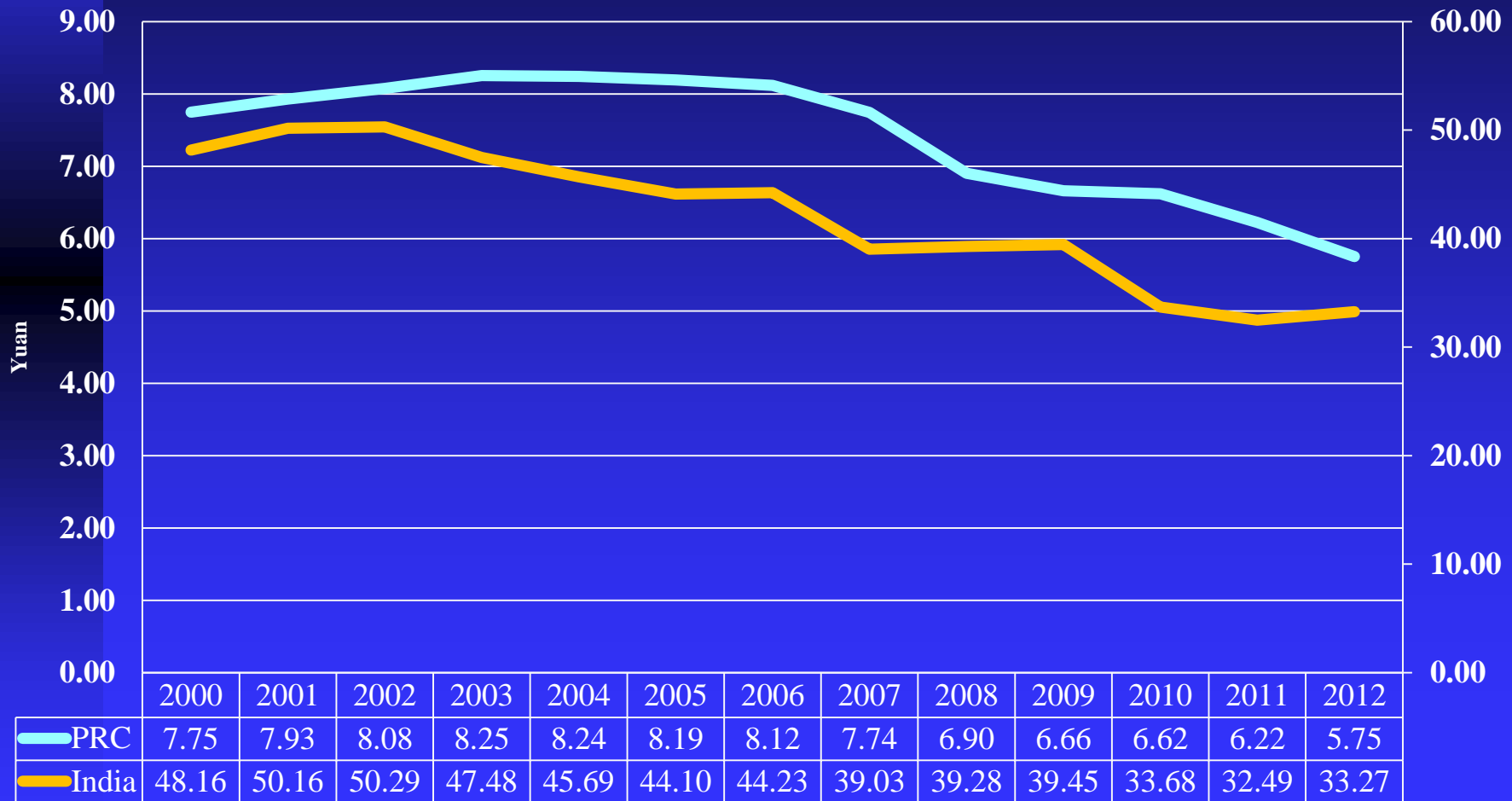


Indexes of major currencies/US\$ (March 1973:

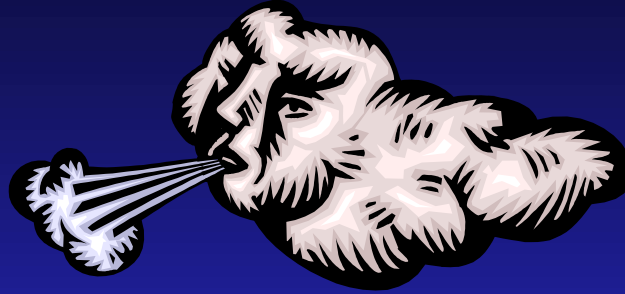


* Currencies weighted by relative market importance to total U.S. trade.

Real Annual Country Exchange Rates (local currency per \$US)

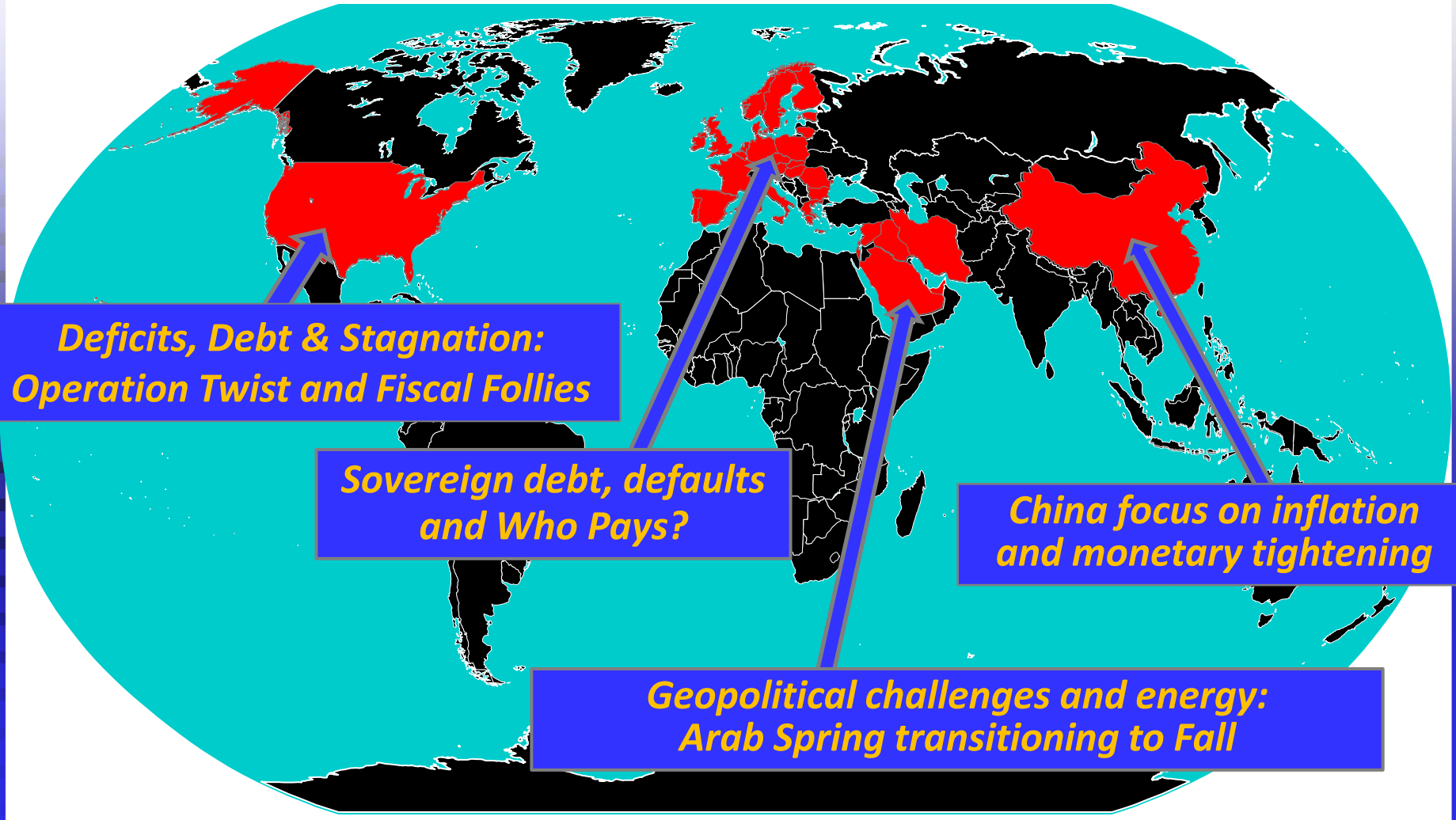


Headwinds Blowing Against Growth in Exports



- **Challenges to Future Economic Growth in Mature Markets**
- **Infrastructure Challenges in Emerging Markets**
 - **Regulatory Hurdles**

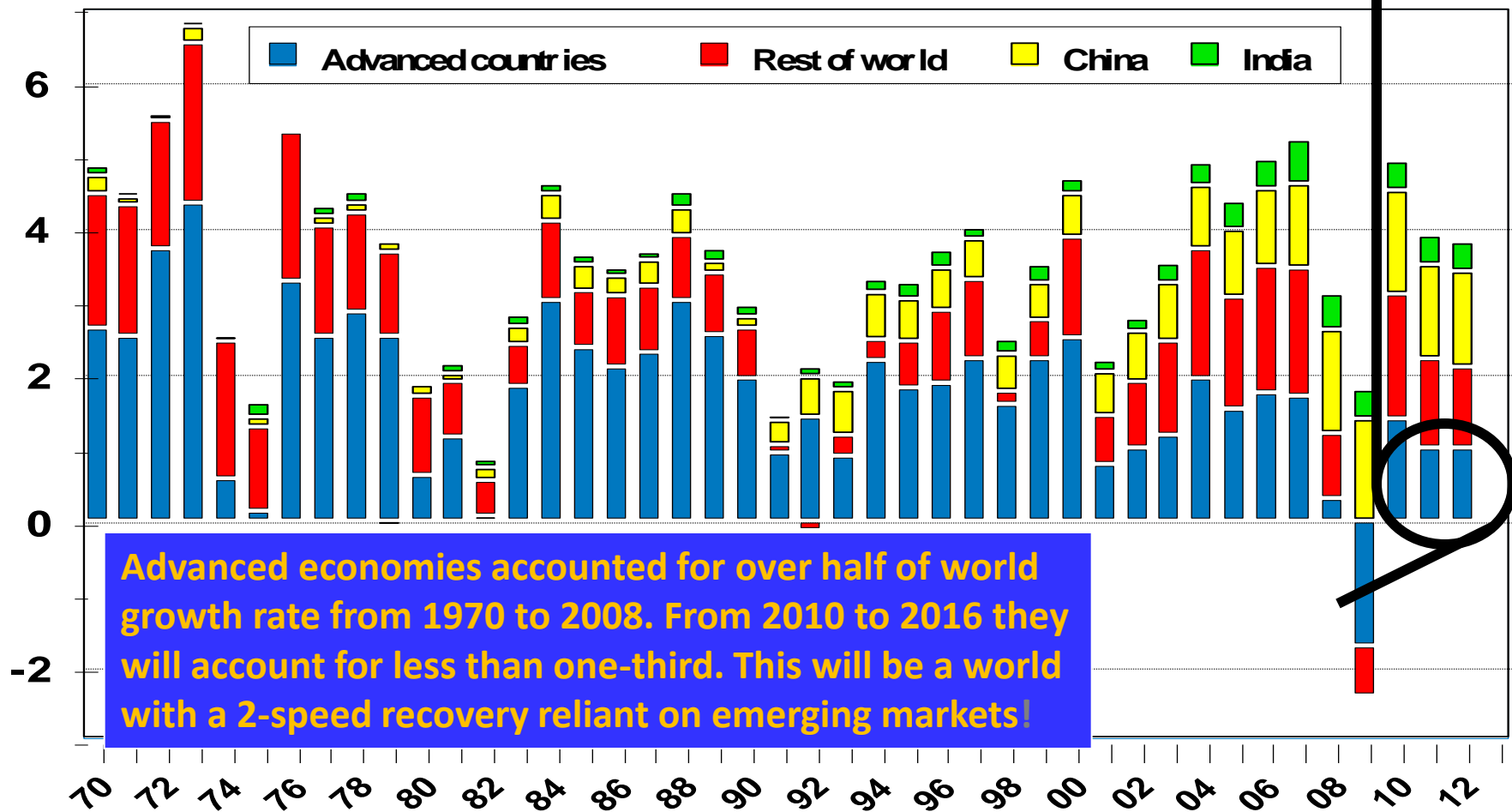
A Lack of Confidence While Passing Through a Global Minefield



Global Economy Facing Crisis of Confidence Regarding U.S. and Europe

Growth prospects in Europe weakening and the U.S. is uncertain!

Percent change in annual world growth (purchasing-power parity rates)



Infrastructure Challenges

Hebei Province Dominant Commercial Supply Chain

From Farm



To Collection
Centers



Dist... Markets



Broker's
For Wholesalers

Cell Phone Revolutionized
Market Intelligence and Price
Discovery

Detail Markets 70%



21%



Processors 9%



Smaller Wholesale to Restaurants & Mom and Pops

Infrastructure In Need of Improvement Particularly Cold Chain Management and Logistics





India though listed as the second biggest food producing country after China has an estimated wastage of around 30-40% of the food items due to spoilage

Regulatory Hurdles

Broad SPS/TBT Categories

SPS Categories:

- additives and pesticide residues/use;
- plant pests and diseases;
- microbiological contaminants;
- chemical contaminants;
- genetically modified plants;
- irradiation; and
- various overlapping technical requirements, such as labeling and standards, including Good Agricultural Practices (GAP) or land-use practices, use of third party auditors, etc.

TBT Categories:

- import quotas and administration (such as licensing and auctions);
- export limitations and bans;
- food laws, including quality standards, safety and industrial standards, and organic certification;
- input, process, and product standards, including domestic content and mixing requirements, rules-of-origin requirements;
- packaging standards and labeling requirements;
- laws and import procedures, including media advertising regulations;
- consumer and food safety regulations—e.g., labeling, packaging, pesticide residue testing, nutritional content labeling, and contamination prevention;
- measures to prevent consumer fraud—e.g., shipping and financial documentation, standards of identity and measurement, etc.

Emerging markets are imposing new import requirements addressing varied concerns, including fraud, MRLs

- **China – Establishing up to 5,000 new pesticide MRLs in the coming years**
- **Indonesia – Decree 27 (US recognition renewal pending)**
- **Malaysia – Anti-fraud measure, US visit by FAMA officials**
- **Vietnam – Plant Health Act, Food Safety Act, Circular 13**

Worldwide efforts to Improve Food Safety

- **Efforts worldwide to establish/revamp food safety, MRL laws and regulations**
 - ◆ **Food Safety Standards and Authority of India**
 - ◆ **Established in 2006**
 - ◆ **China's effort to establish up to 5,000 MRLs**
 - ◆ **Vietnam's Food Safety and Plant Health Acts, Circular 13**
- **FDA's Food Safety Modernization Act**
 - ◆ **FDA will expand its presence in key foreign markets**
 - ◆ **FDA attachés in – China, Mexico, India**
 - ◆ **Increased inspections based on identified risks**

Private Sector Initiatives Imperatives for Global Commerce

Global Food Safety Initiative: a benchmarking and approval scheme aspires the goal of “once certified, accepted everywhere” but it remains just that, a goal.

Multiple food safety standards are either approved or recognized by the GFSI and therefore acknowledged internationally, they include:

- **BRC Global Standard Food Safety (British Retail Consortium)**
- **FSSC 22000 (Food Safety System Certification)**
- **Global GAP (Good Agricultural Practice)**
- **HACCP (Hazard Analysis and Critical Control Points)**
- **IFS Food (International Featured Standard)**
- **SQF (Safe Quality Food)**

What are the standards that producers and suppliers are held accountable for?

US Consumer Confidence in the Safety of Fresh Produce by Source, 2010



Source: The Hartman Group and PMA, Identifying Consumer Trends in the Produce Category, 2010.

Consumers in Major Growth Markets Are Doubtful

- In the city of Guangzhou, whose Cantonese cuisine is celebrated worldwide, more than 46% of residents are dissatisfied with food safety, and more than 37% said they had suffered recent food-safety problems, according to a survey released this month by the Guangzhou Public Opinion Research Center.

Consumers in Major Growth Markets Are Doubtful: With Good Reason

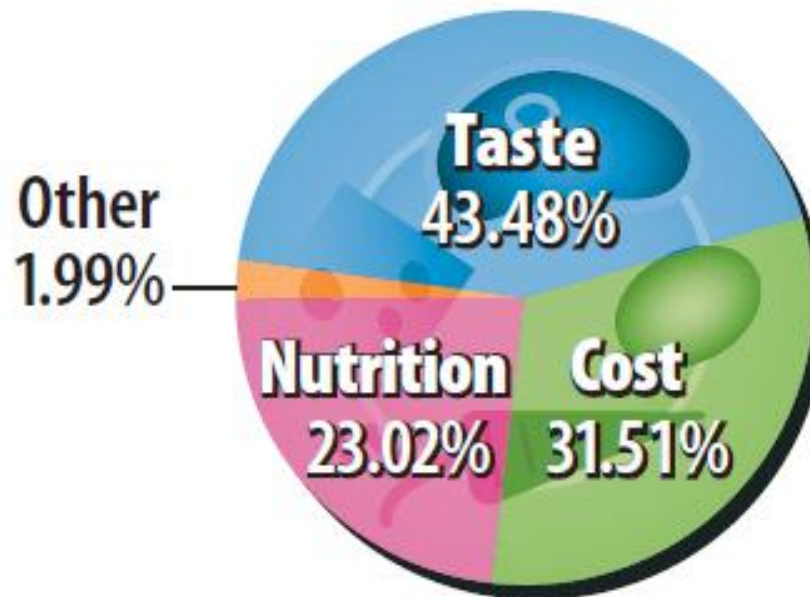
- **Four men in Mumbai have been arrested and charged with selling milk mixed with sewage water in plastic packets scavenged from garbage bins, Indian police said on May 29. A study by an Indian government watchdog published in January showed that more than two-thirds of milk in the country was contaminated with substances including salt, detergent, skimmed milk powder, fat, glucose and water.**

What to Do?

Look to US Consumers

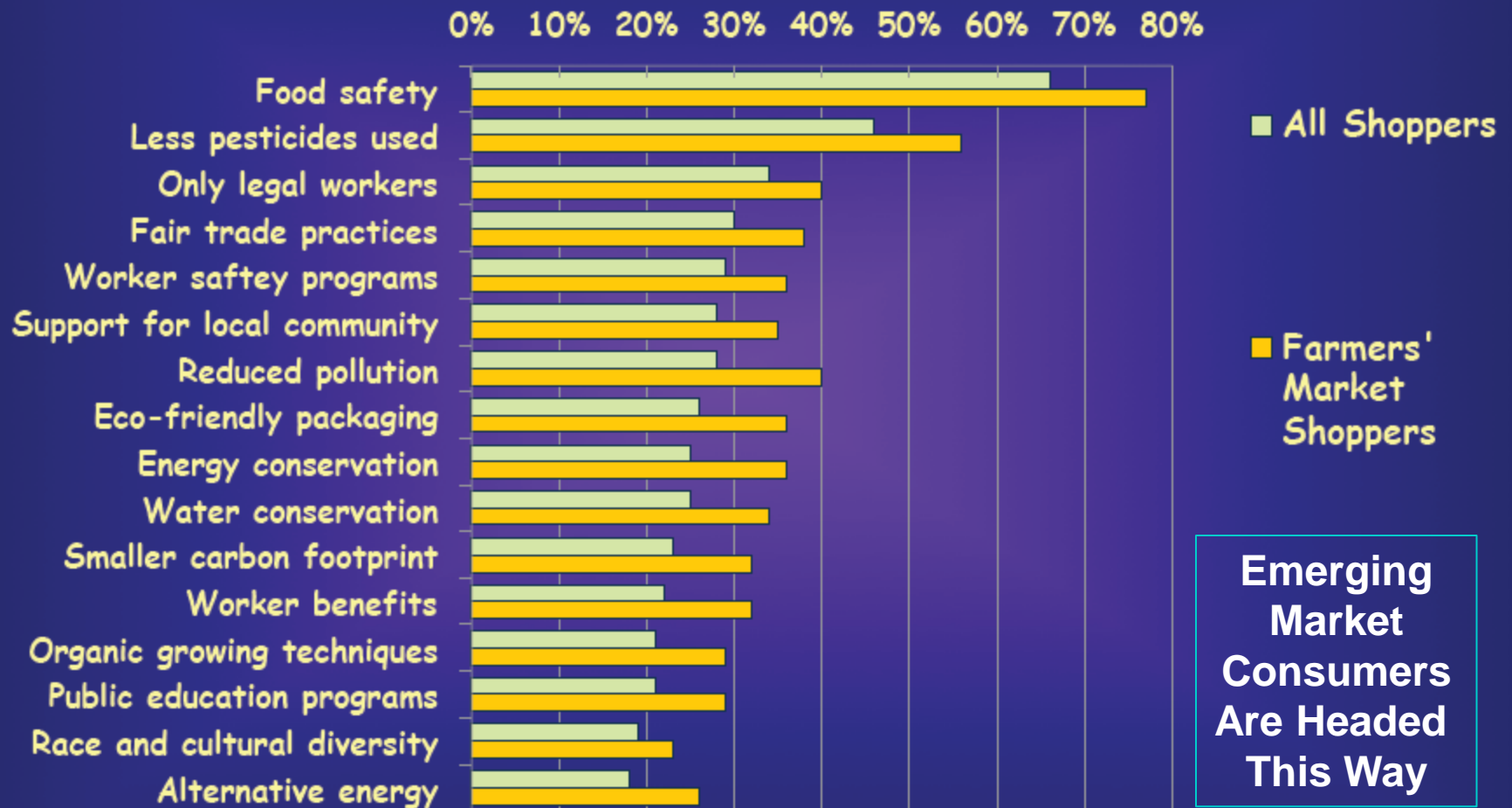
Validation Study: Factors Influencing Food Purchase Decisions

The Nielsen Company, Oct. 2010²³



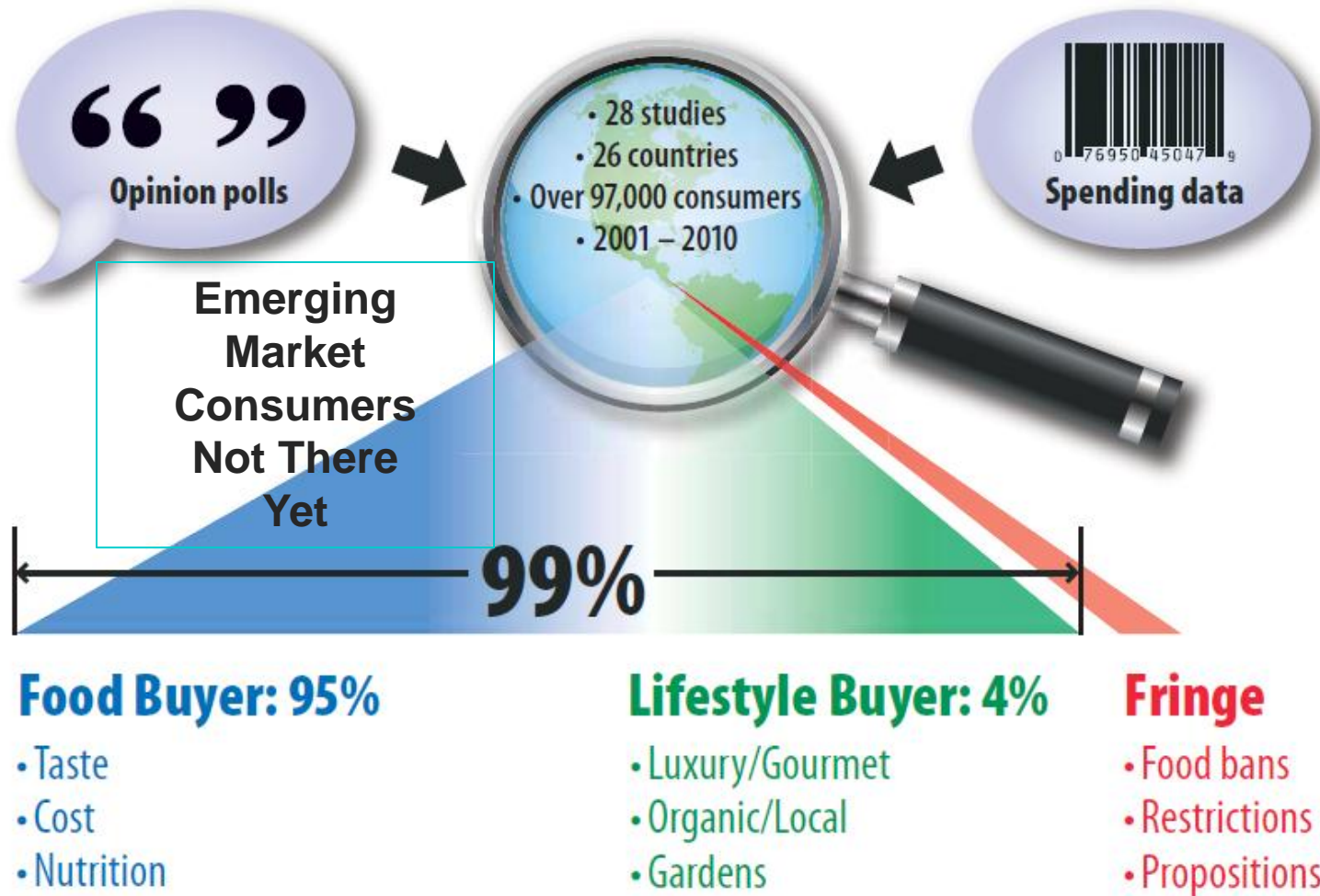
According to a 2010 survey of 26,653 U.S. households, the most important factors in food purchasing decisions are taste, cost and nutrition.

Policies that US shoppers say they want from their produce providers, 2010



Source: The Hartman Group and PMA, Identifying Consumer Trends in the Produce Category, 2010.

The International Consumer Attitudes Study (ICAS)



Analysis of 28 studies that looked at consumer attitudes and behaviors regarding food purchases shows that 99 percent of people choose to eat traditionally grown foods, lifestyle foods or both. Only a tiny percentage wants to eliminate food choices by banning specific agricultural technologies and/or methods.

The Message

Key Points for Success In

Global Fruit & Vegetables and Processed Specialty Crops Industry

Market Differentiated Products - Brand recognition, US means safe food, California means great safe food.

Adapt to Market Trends – Increasing demands of urban middle to upper class consumers; convenient, fast, high-quality, safe and healthy.

Upstream Integration Within Foreign Markets - Linkages to distributors, either via partnerships or through contracts, will ensure product placement and improve in-country product handling. Guanxi

Pay Attention to High Quality - Important to gain and maintain consumer preference. One rotten apple really does spoil the whole barrel.

Thank You For Inviting Me

Save The Date

November 7, 2012

Agricultural Business Management Conference

Fresno, CA

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