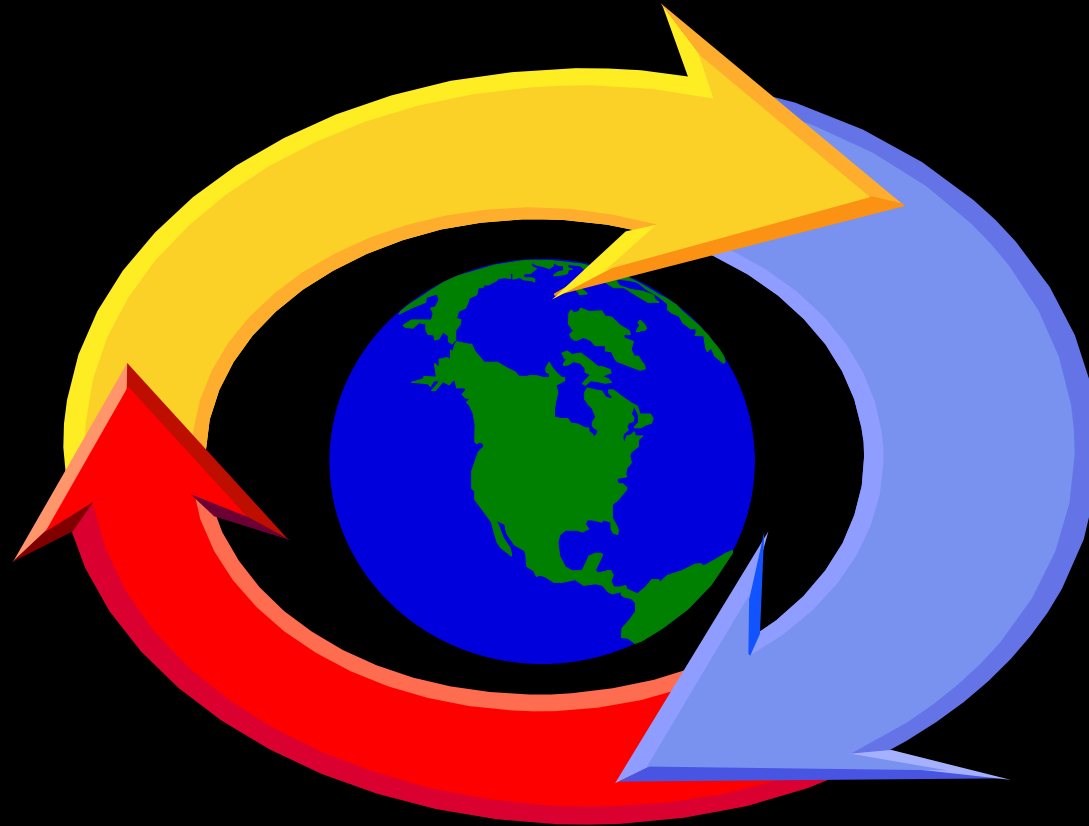


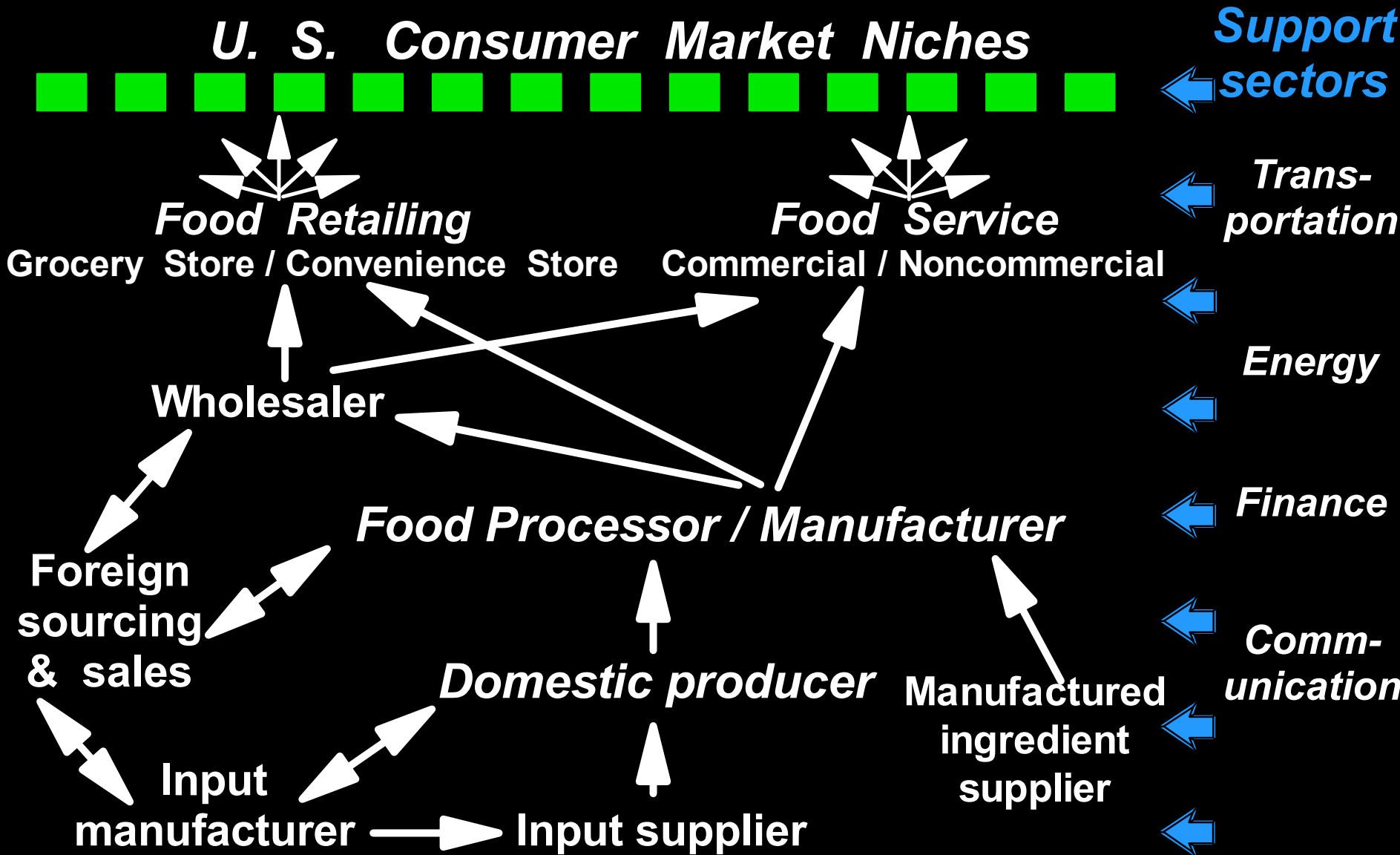
***The Virtual Integration of the  
Food, Natural Fiber and Agriculture System:  
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***Truth or Consequences: The Future of Contracts in Agriculture  
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# The U.S. Food, Natural Fiber and Agriculture System

## U. S. Consumer Market Niches



**Every layer is a transaction cost and a quality control point !**

# ***A "Perfect Storm" for Change?***

***The 1990's economic expansion created a business environment which rewarded dramatically different business strategies than prevailed in the 1970's and 1980's. New technology enabled change, liquidity and equity markets fueled the transformation, and a U.S.-centric global economy created a sense of urgency regarding emerging global growth, demographics and purchasing power.***

# ***A "Perfect Storm" for Change?***

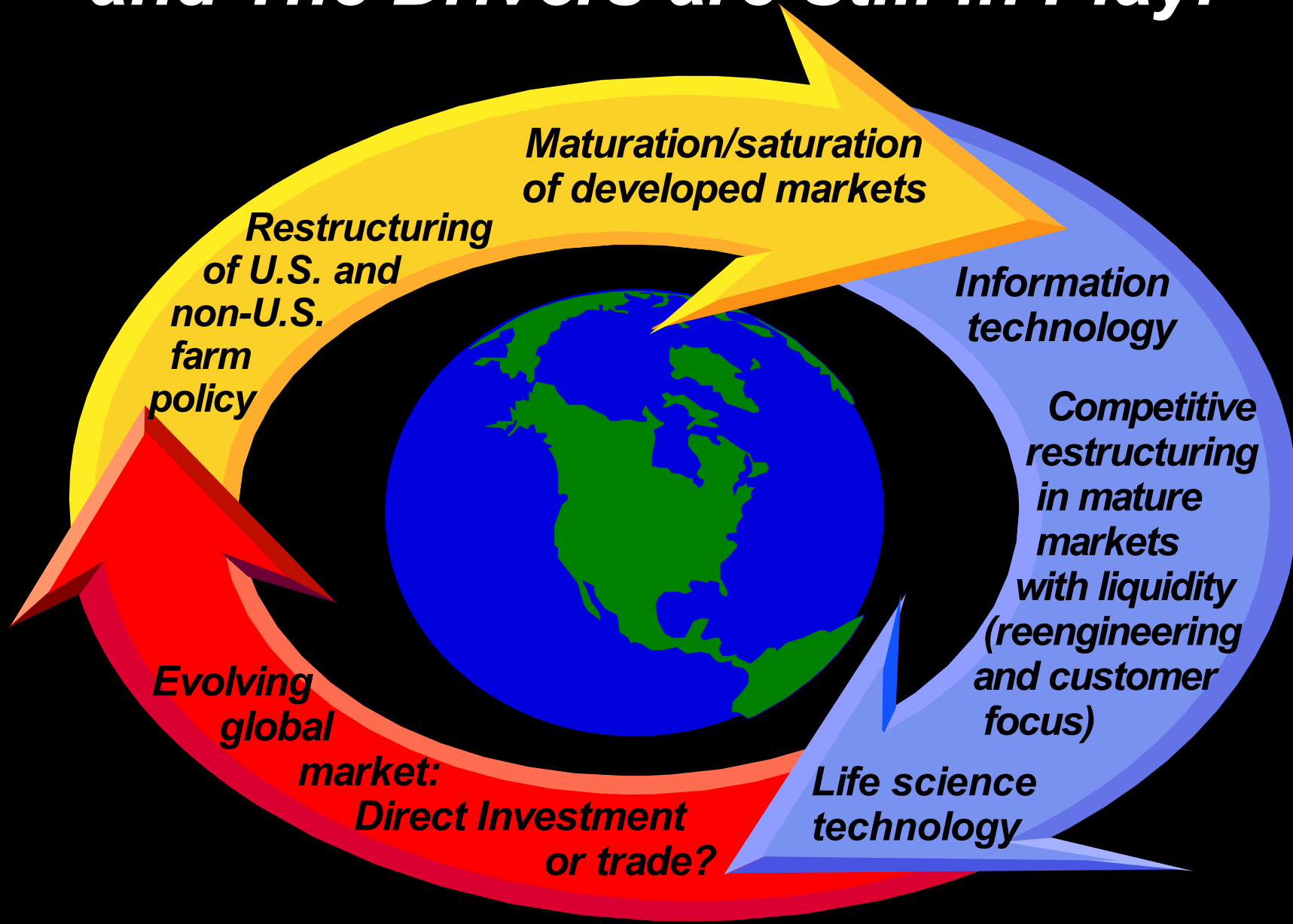
**☞ In non-inflationary environment with abundant low cost imports and weak foreign markets, profits became correlated with cost containment rather than price enhancement.**

**☞ Tremendous liquidity (equity capital) permitted merger and acquisition activities on a larger scale. Price cutting strategies to acquire market share gave way to acquisition strategies to spread costs over more business volume!**

**☞ Rapid gains in information technology enabled "just-in-time" business relationships and dramatically shifted risk. Brick and mortar had to be rationalized within new distribution systems. Advantage shifted to those who could adapt physical assets.**

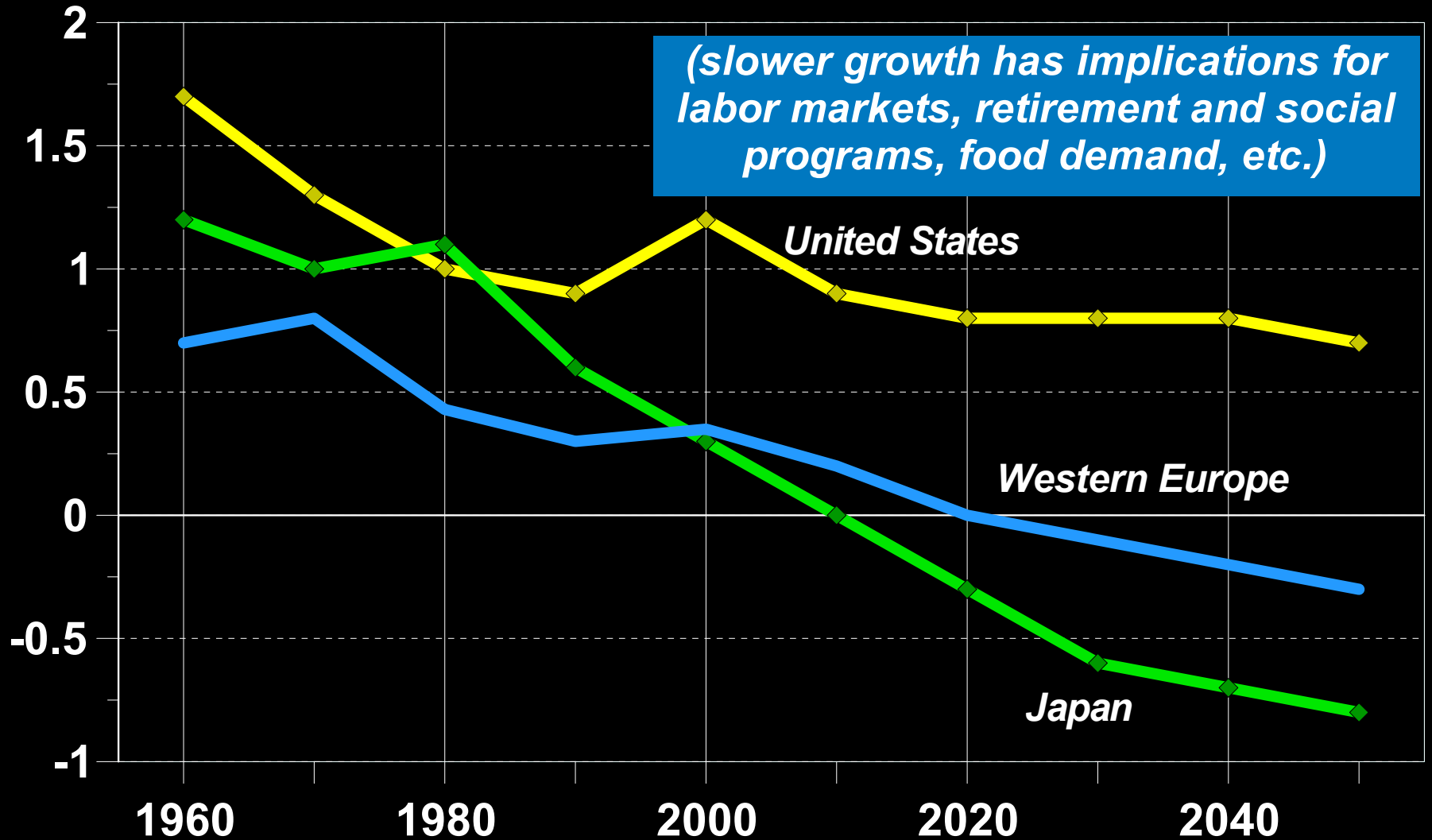
**☞ The collapse of global market made battle for domestic U.S. market share more intense as multinationals focused on U.S. economy to reestablish profit base. Recognition of U.S.-centric global growth, global demographics, the distribution of global purchasing power and failure of industrialized to address structural issues mandated realignments in market strategies.**

# ***The Storm Isn't Over and The Drivers are Still in Play!***



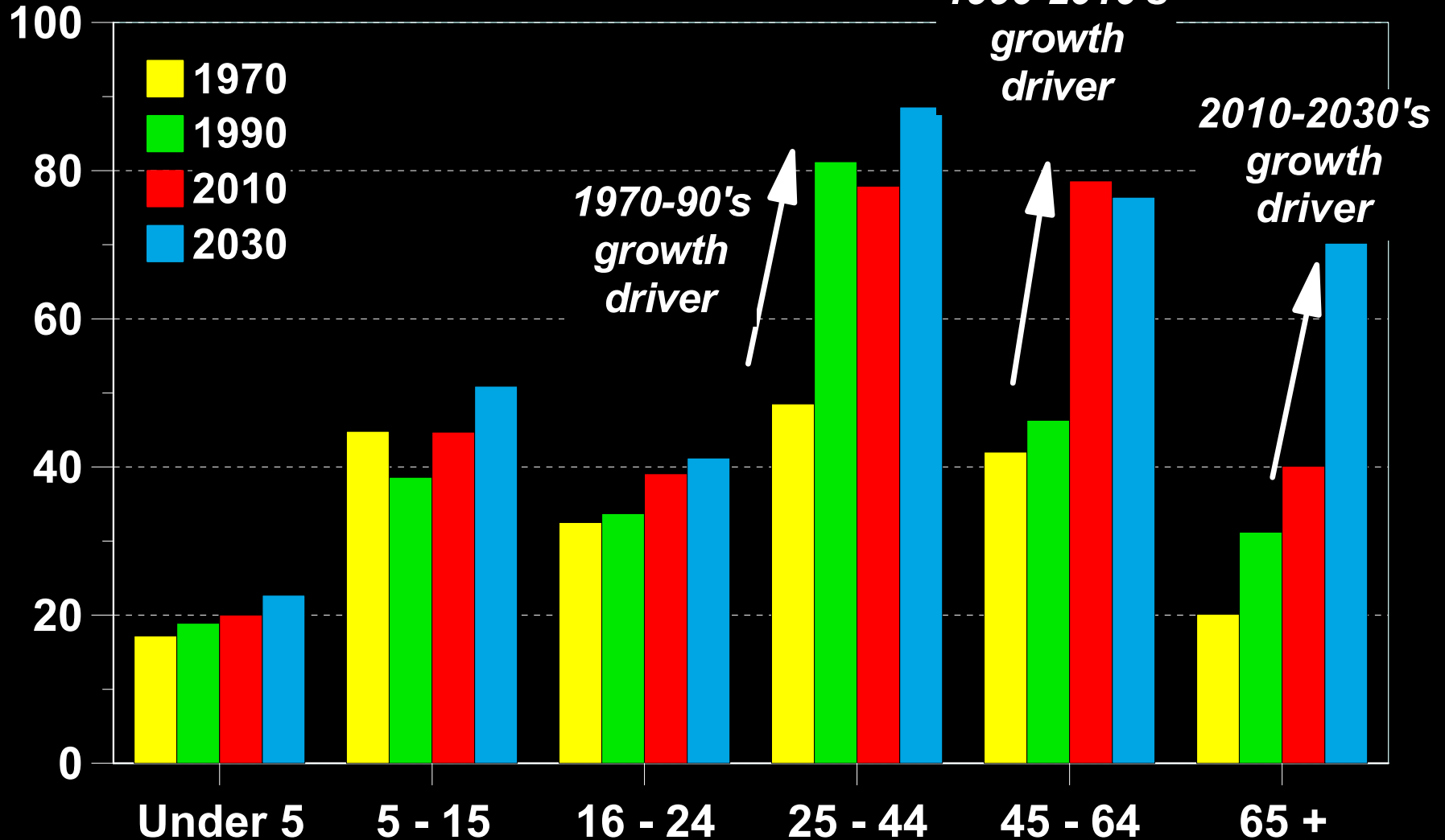
# Population Growth Rates Slowing

Population growth rates



# Age Composition of U. S. Population

Million people



# ***Focus on Consumer Will Drive U.S. Market***

- ✘ **Demographics: older population; slower growth**
- ✘ **More single person households**
- ✘ **More two wage-earner families**
- ✘ **Smaller families**
- ✘ **Increased ethnic populations (net immigration is principal factor sustaining U.S. population growth; Hispanic population is fastest growing group)**
- ✘ **More concerns with food safety, secondarily health and nutrition, etc.**
- ✘ **More emphasis on convenience**
- ✘ **More away-from-home eating (approaching 50%)**



# ***Underestimating the Role of Technology as a Catalyst for Change Could be Fatal!***

## **■ *Information Technology***

- ▶ *Enhances ability to analyze, assess and communicate information to facilitate planning, coordination and risk management***

**⌚ Information will replace inventory, reduce costs and shift risk! Rapidly changing technology will enhance the economic incentives to collaborate.**

**⌚ This offers the advantages of a tightly coordinated supply chain characteristic of vertically integrated firms but offers flexibility necessary in markets where technology is changing rapidly. The system benefits from the focus and the specialization of a virtual corporate business form.**

**Consumer preferences**

**Information systems will link  
consumer preferences with  
input-production-processing  
technologies & delivery systems.  
In the process it will redefine  
the U. S. food system and  
rural America!**

**Input,  
production  
& processing  
technologies**

**Delivery  
systems**

# Retail Food Consolidation has Accelerated

<b>Year</b>	<b>4 largest retail food chains</b>	<b>8 largest retail food chains</b>	<b>20 largest retail food chains</b>
<b>1977</b>	<b>17 %</b>	<b>24 %</b>	<b>35 %</b>
<b>1987</b>	<b>17 %</b>	<b>26 %</b>	<b>37 %</b>
<b>1997</b>	<b>18 %</b>	<b>30 %</b>	<b>44 %</b>
<b>2002 est.</b>	<b>22 %</b>	<b>31 %</b>	<b>48 %</b>

**Add the two largest food warehouse chains:**

**#1 Wal-Mart/Sam's Club 19 %    #5 Costco 6 %**

**Top 6**

**Top 10**

**2002 est.**

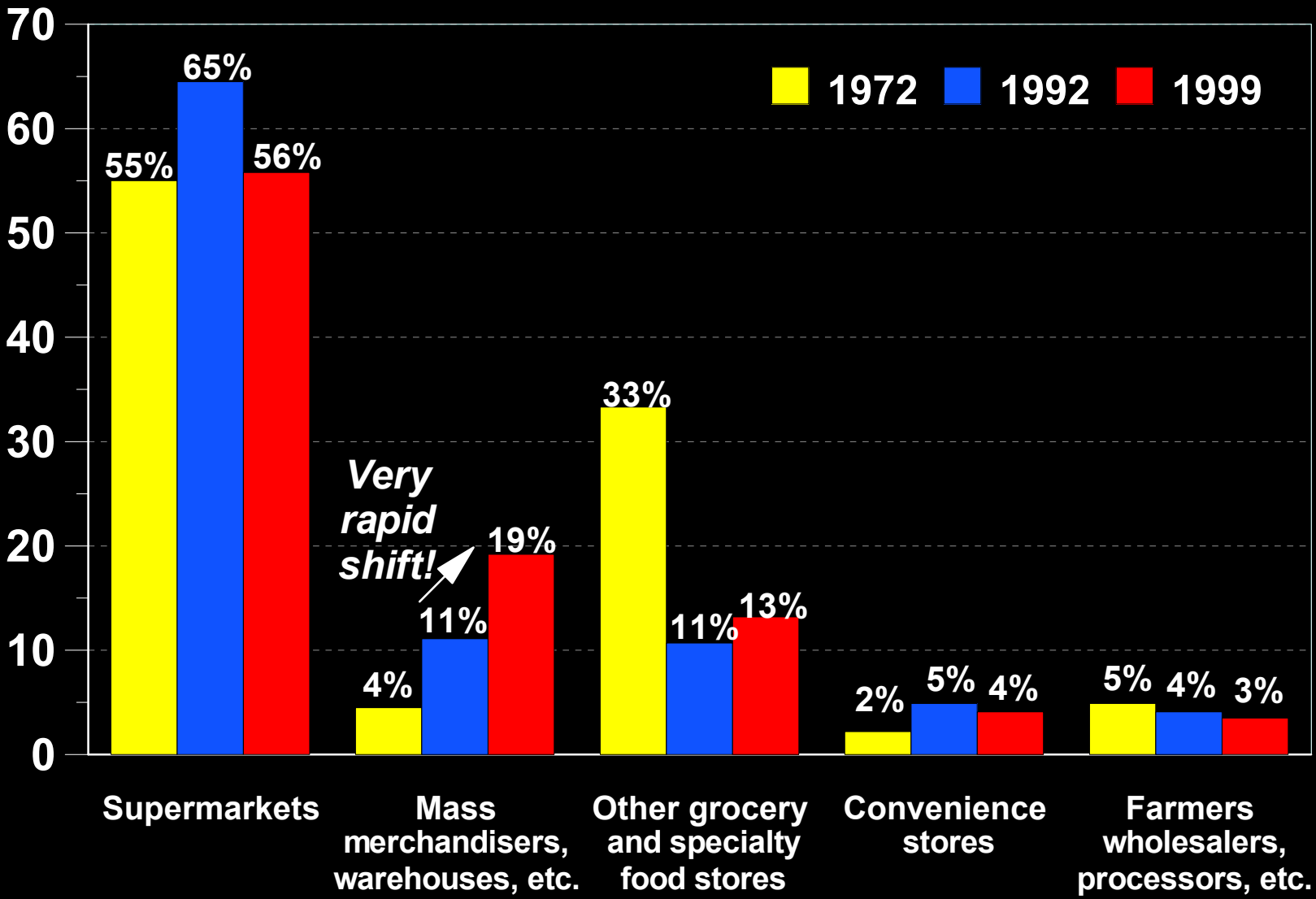
**47 %**

**55 %**

**By 2005 the top 10 grocers will control 65 % of market and economic power will move increasingly to retail capital!**

# Consumer Buying Patterns Shifting Away from Supermarket

Percent of food sales by type of outlet



# ***Wal-Mart is #1 Food Retailer***

**Wal-Mart poses serious problems for food industry because *"it is after the 2.3 trips that the average consumer makes to the grocery store"* every week not just enhanced profits on food sales! They are a major retailer across a wide spectrum of consumer products and want every supply chain to fit their model!**

- ▶ Wal-Mart : 940 Super centers; 150 to 175 stores added each year**
- ▶ Target: 37 Super Targets; add 30 per year for 10 years**

**They want suppliers to handle imported products and to facilitate Wal-Mart's global positioning!**

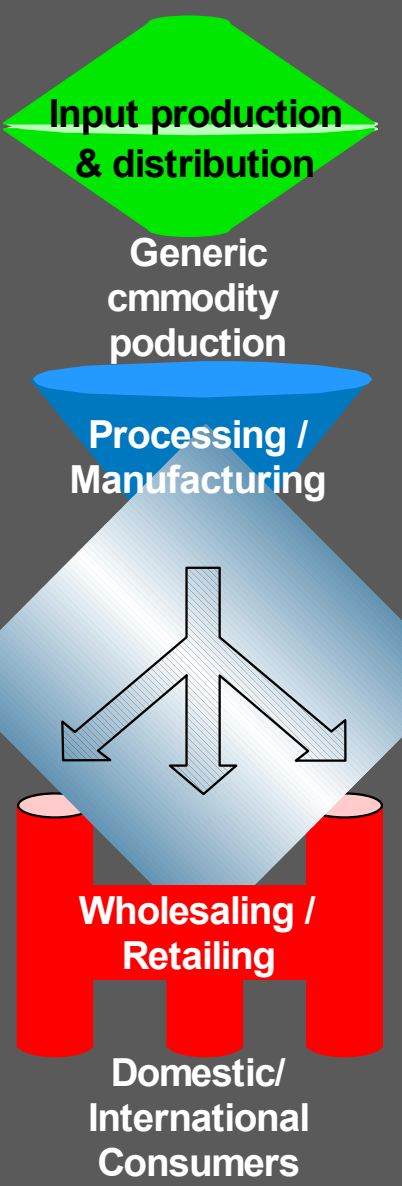
## **Food Processors Respond**

***"...food processing groups are feeling pressure as the larger supermarket chains and warehouse retailers are squeezing discounts from their suppliers and seeking more efficient suppliers with greater geographical coverage who can supply larger, quality controlled quantities."***

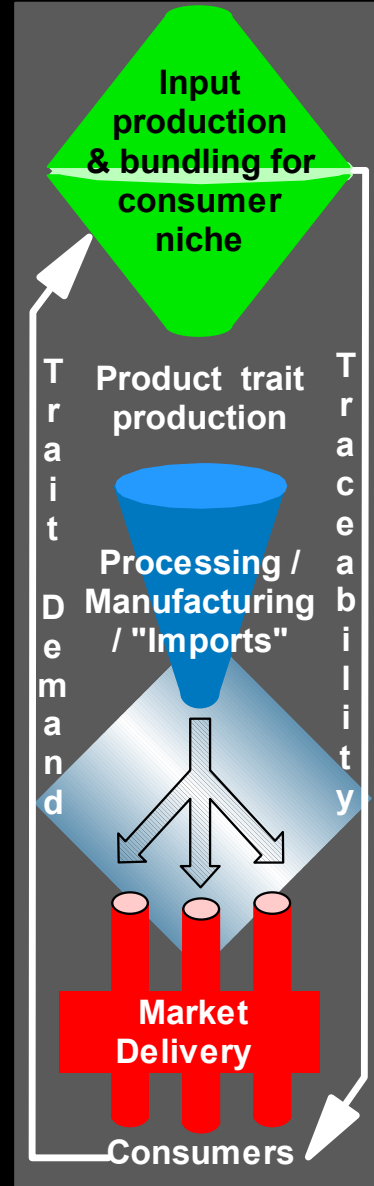
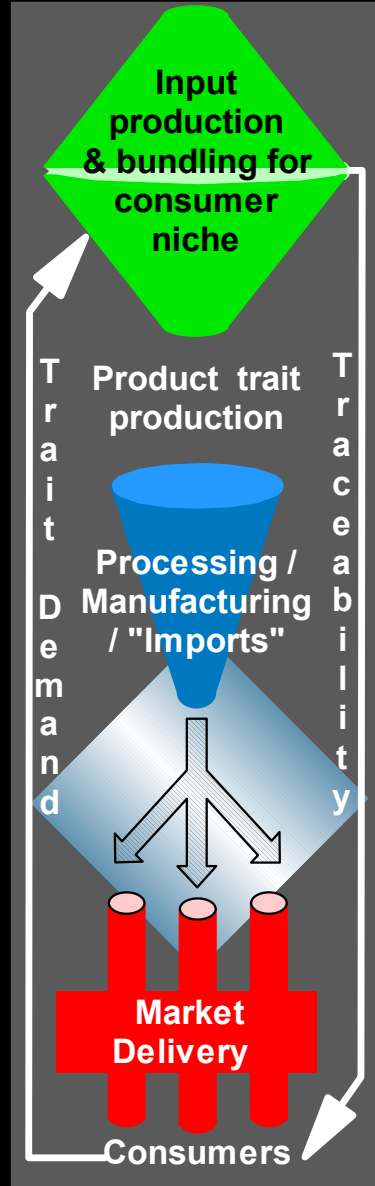
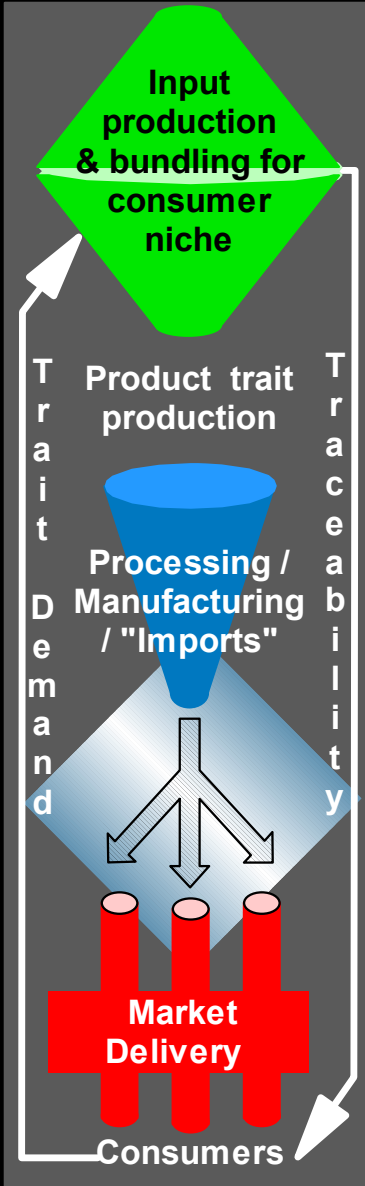
***Additionally, "competitively-priced, private label brands" are gaining strength with the recent consolidation putting retailers into the food processing business. Aggressively seeking food service linkages!***

- ✗ Kraft Foods/Nabisco***
- ✗ General Mills/Pillsbury***
- ✗ Unilever/Best Foods***
- ✗ Kellogg/Keebler Foods***
- ✗ Pepsico/Quaker Oats***

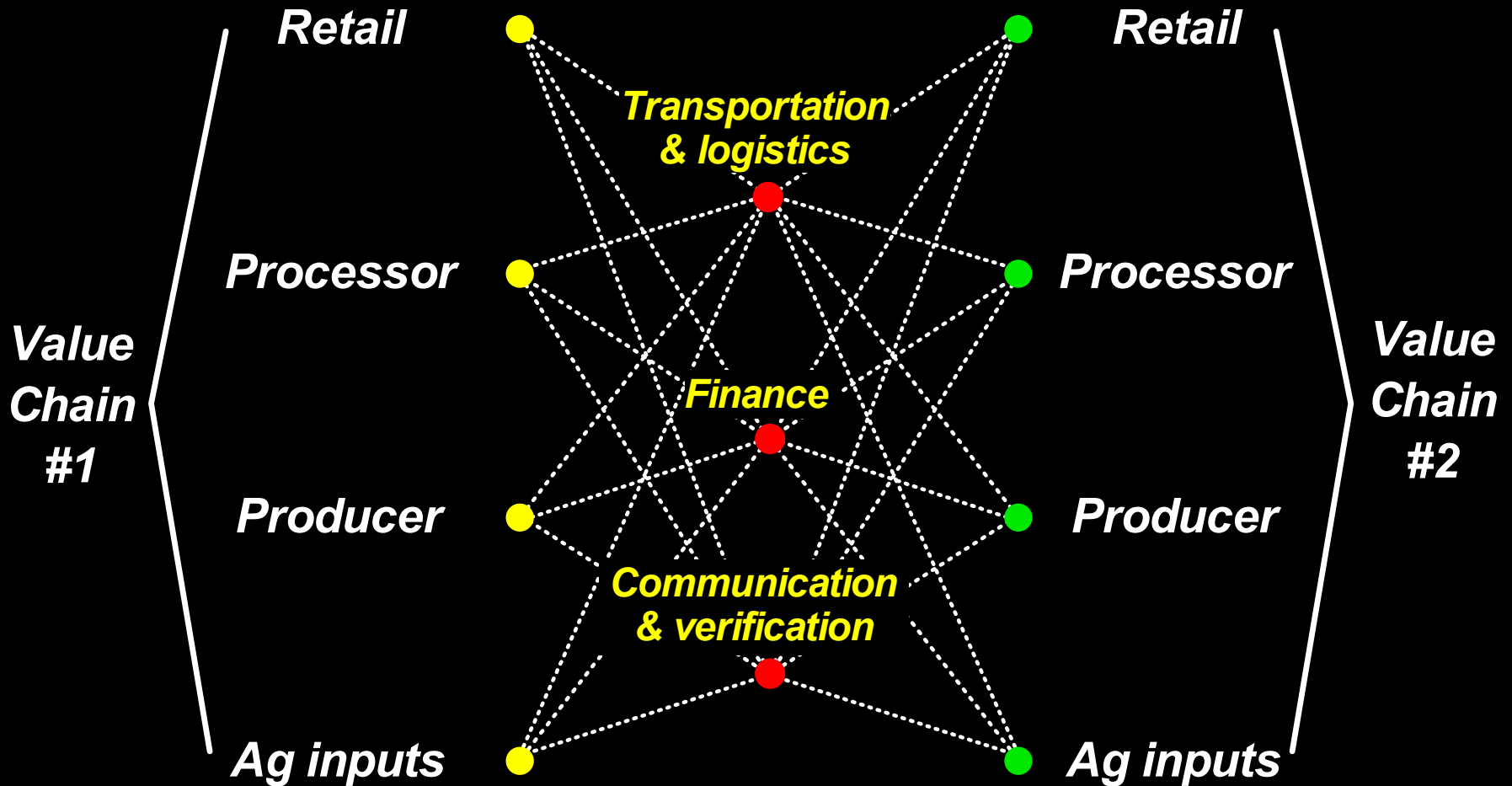
# Traditional Structure



# Evolving "Virtual" Food System Value Chains



# *Virtual Collaborative Networks in the Food, Natural Fiber and Agriculture System*



**Coordination  $\neq$  Collaboration**



# *Virtual Collaborative Networks in the Food, Natural Fiber and Agriculture System*

## *✘ Wal-Mart non-stop replenishment:*

*Pilot project with Ralston-Purina : Wal-Mart's store-level inventory management system transmitted an electronic order to Ralston-Purina each time a bag of dog food was sold. Replenishment required within 3 days. Wal-Mart's distribution center inventory levels dropped from 3.6 weeks to 1.8 weeks. Non-stop replenishment keeps product in motion from manufacturer to consumer.*

## *✘ McDonald's eggs from happy chickens:*

*McDonald's is setting standards for egg suppliers in terms of forced molting and cage sizes.*

## *✘ Wal-Mart case-ready meat program:*

*What are implications for producers / suppliers?*

# ***Virtual Collaborative Networks in the Food, Natural Fiber and Agriculture System***

## ***X Wal-Mart logistical strategies:***

***McLane Company, a wholly owned subsidiary of Wal-Mart, has acquired the distribution assets of Ameriserve Food Distribution Inc. McLane controls about one-third of the distribution to U.S. convenience stores and also supplies fast-food restaurants, theatres and Wal-Mart. This acquisition includes a contract to supply the Tricon Global system (Pizza Hut, Taco Bell and KFC).***

***(Wal-Mart has announced intentions to sell McLane)***

## ***X Food Service Distribution:***

***85% of the sales of the top 50 food service companies is done by 5 firms..... Sysco, U.S. Foodservice, Alliant, PYA/Monarch and Performance Foods. (U.S. Foodservice and PYA/Monarch are owned by Ahold!)***

# ***Underestimating the Role of Technology as a Catalyst for Change Could be Fatal!***

## ***Life Science Technology***

- ✓ Enhances productivity and/or reduces cost (first generation: input & performance traits)***
- ✓ Enhances selected product traits or characteristics (second generation)***
- ✓ Creates new products for food and health sectors***

***( Food safety and public perception issues are not resolved in the U.S. / Europe / Asia. This will slow market evolution of second generation bio-technology.)***

***This will become an increasingly strategic contractual issue!***



***These transformations are part of an ongoing evolutionary process that is continuing to accelerate! There will be no "right" strategies for participants in the food, natural fiber and agriculture system. The life span of business strategies will become shorter and shorter in this dynamic, knowledge driven environment!***

***The focus must be on the forces of change as well as the access to the business strategies to respond to these forces !***

# **Some Collaborative Strategies in the Food, Natural Fiber and Agriculture System Have Already Had a Short Lifespan!**

## **✗ *Dirt-to-Plate / Conception-to-Consumption Strategy***

- ***Two of the proponents of these strategies (ConAgra and Farmland Industries) have acknowledged that the risks and returns will not support a total ownership strategy, particularly without the direct consumer access. ConAgra..... " it's not about our consumers and customers..."***

## **✗ *Food safety / Security, Biotechnology and Labeling (cool)***

- ***These are all factors that limit the desire of entities to extend ownership down the food chain. Can't risk brand image on the uncertainties and risks at lower end of value chain, particularly if you have leverage of direct consumer access (shelf space, food service, etc.) over suppliers.***

***Evolving Global Market:  
Direct Investment or Trade?***



# ***"The 3-5 Year Horizon"***

***Does Globalization Accelerate Demand  
to Outpace Supply Side Stimulus?***

***Yes***

***Current trends continue  
but at a moderate pace as  
open market remains a  
viable alternative to  
contractual commitment.  
Same forces at work but  
production agriculture  
has more options.***

***No***

***Pace of structural change  
accelerates as price/cost  
squeeze forces realignments  
to manage risk. Open market  
becomes more volatile and  
government response is  
limited by budget restrictions.  
Options more limited and  
sense of urgency is greater.***

# ***Emergence of Major Export Competitors***

- ☞ Brazil and Argentina are emerging in soybeans, corn & poultry.**
  - 90% increase in soybeans since 1998.**
- ☞ Newly Independent States of the Former Soviet Union are transforming from a net grain importer to an exporter.**
  - Exported 30 mmt in 2002/03; world market is only 200 mmt.**
- ☞ Terms of EU enlargement in 2004 could bring additional exportable surpluses to market with subsidies. Watch enlargement terms.**
- ☞ Phase-out of Multi-Fiber agreement in December, 2004 will expand developing country role in textiles and further force shifts in U.S. cotton industry.**
  - U.S. must export 60% of production at current capacity.**
- ☞ China's progress on implementing WTO accession commitments and restructuring state-owned enterprises will define their role in Asia and the export sectors they choose to develop.**



# ***Restructuring of U.S. and non-U.S. Farm Policy***



# ***The Doha Round of WTO***

**✘ The mandate for the Doha round was intensely debated with developing countries strongly arguing that the Uruguay Round was largely to the benefit of the developed world. The following language was incorporated into the mandate to secure agreement to a new round:**

***... The majority of WTO members are developing countries. We seek to place their needs and interests at the heart of the Work Programme adopted in this Declaration. Recalling the Preamble to the Marrakesh Agreement, we shall continue to make positive efforts designed to ensure that developing countries, and especially the least-developed among them, secure a share in the growth of world trade commensurate with the needs of their economic development.***

# ***Shifting U.S. Agriculture Policy***

## ***1. Declining direct income support for agriculture***

- ✓ Pace of change linked to budget issues ! The budget pressures from demographic realities will ultimately lead to declining support and means testing.

***Dilemma: Private sector will not assume risk they believe government will cover. Producers will not seek market based risk strategies if government option is available.***

## ***2. Enhanced focus on***

- Food safety
- Environment
- Conservation
- Market regulation

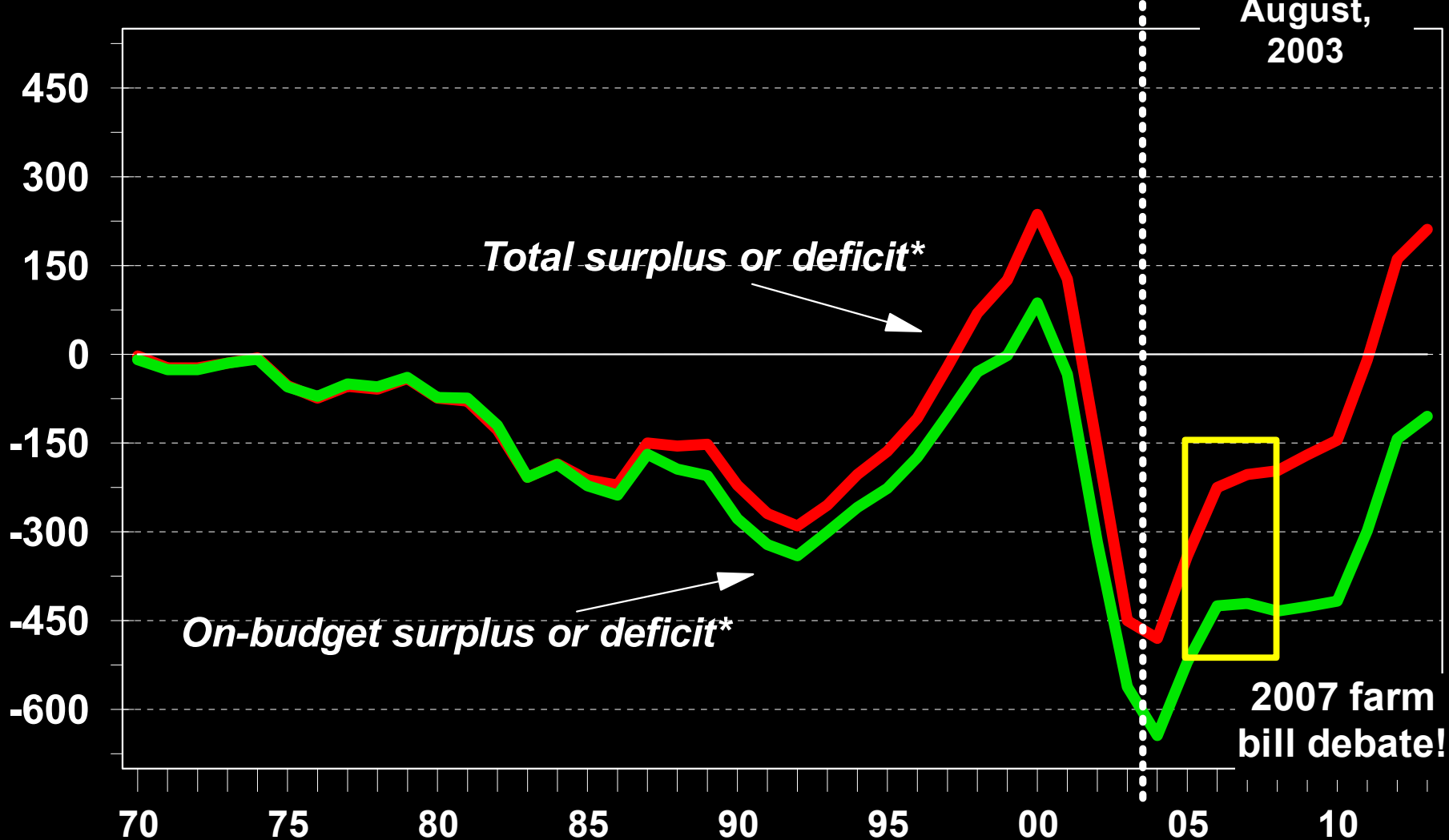


***Increased impacts on cost, structure and location of food, fiber and agriculture system !***

***3. Government deregulation of support industries will also have increasing impacts !***

# U. S. Federal Budget Outlook

Billion dollars



\*Total surplus or deficit includes social security trust funds & postal service. On budget estimates exclude trust funds.

# ***" Adaptation and Survival "***

The adaptation and survival of the independent producer in the evolving food, fiber and agriculture system will be based on developing a flexible, **"proactive"** business model that can be integrated into the collaborative networks **"created with"** the remaining segments of the food and agricultural system.

There will be room for all sizes and types of farms that can adapt themselves to the needs of their customers!

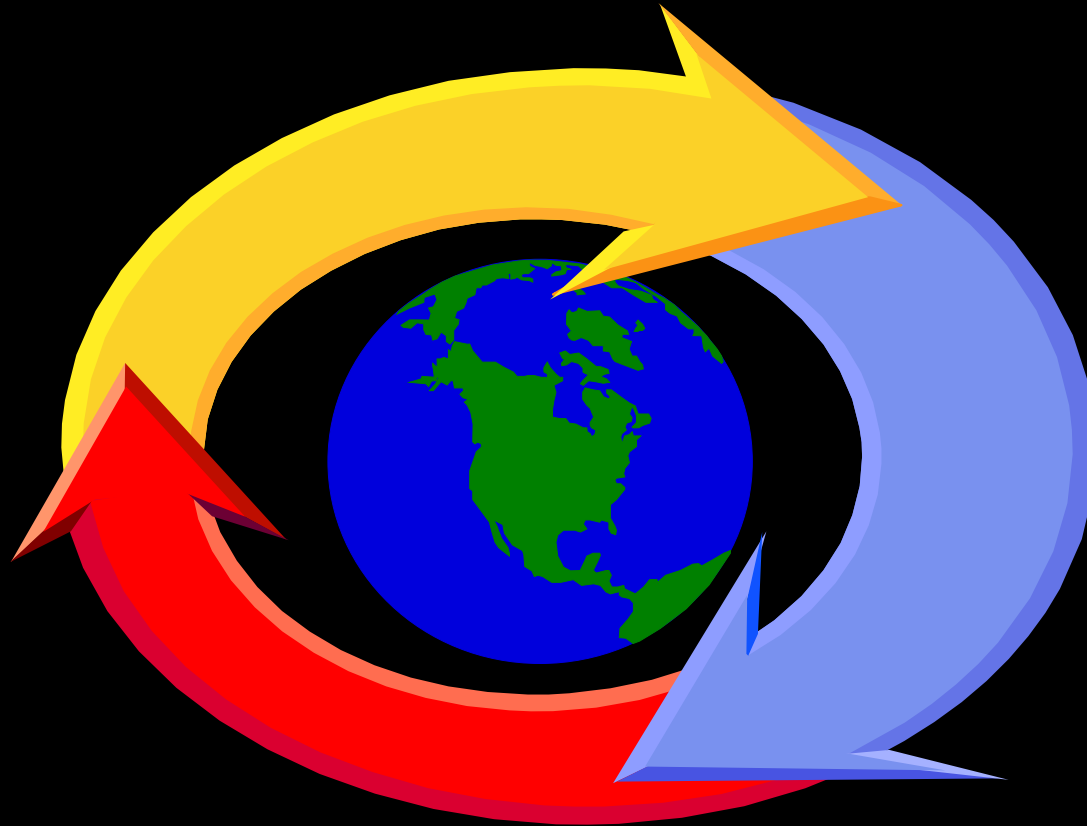
***Agriculture was forced into the world of marketing by the marketplace transformations of the 1980's and 1990's.***

***In the coming decade they will be forced into the world of contractual relationships by an even more powerful new set of forces.***

***The eventual structure of agriculture and rural markets will reflect agriculture's ability to craft effective contractual agreements to:***

- ✗ capture value for virtual integration***
- ✗ manage financial risk and***
- ✗ limit liability exposure to issues of food safety and security, environment, etc.!***

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