



**GLOBAL  
INSIGHT**

# **Cost-Benefit Analysis of USDA's MAP and FMD Programs**

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# *Estimating The Impacts Of The Programs*

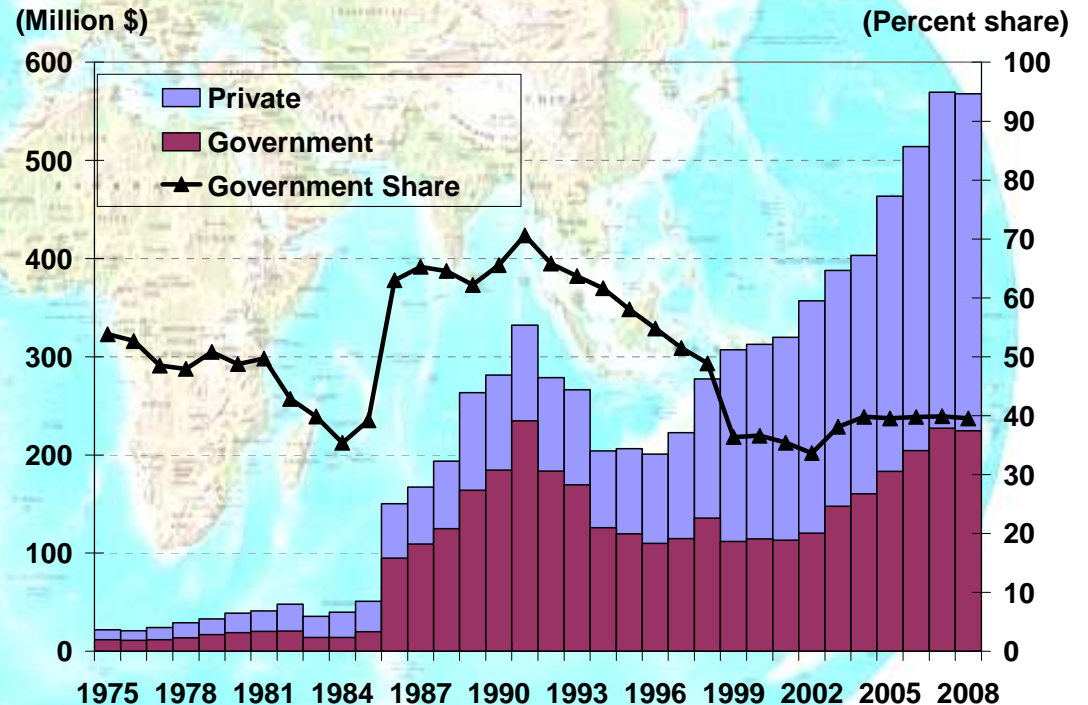


**First, some background on the programs**

# Rising Industry Contributions Have Helped Boost Overall U.S. Market Development To Nearly \$570 Million a Year

**Market development has increased sharply over past decade – mostly due to increases in industry contributions**

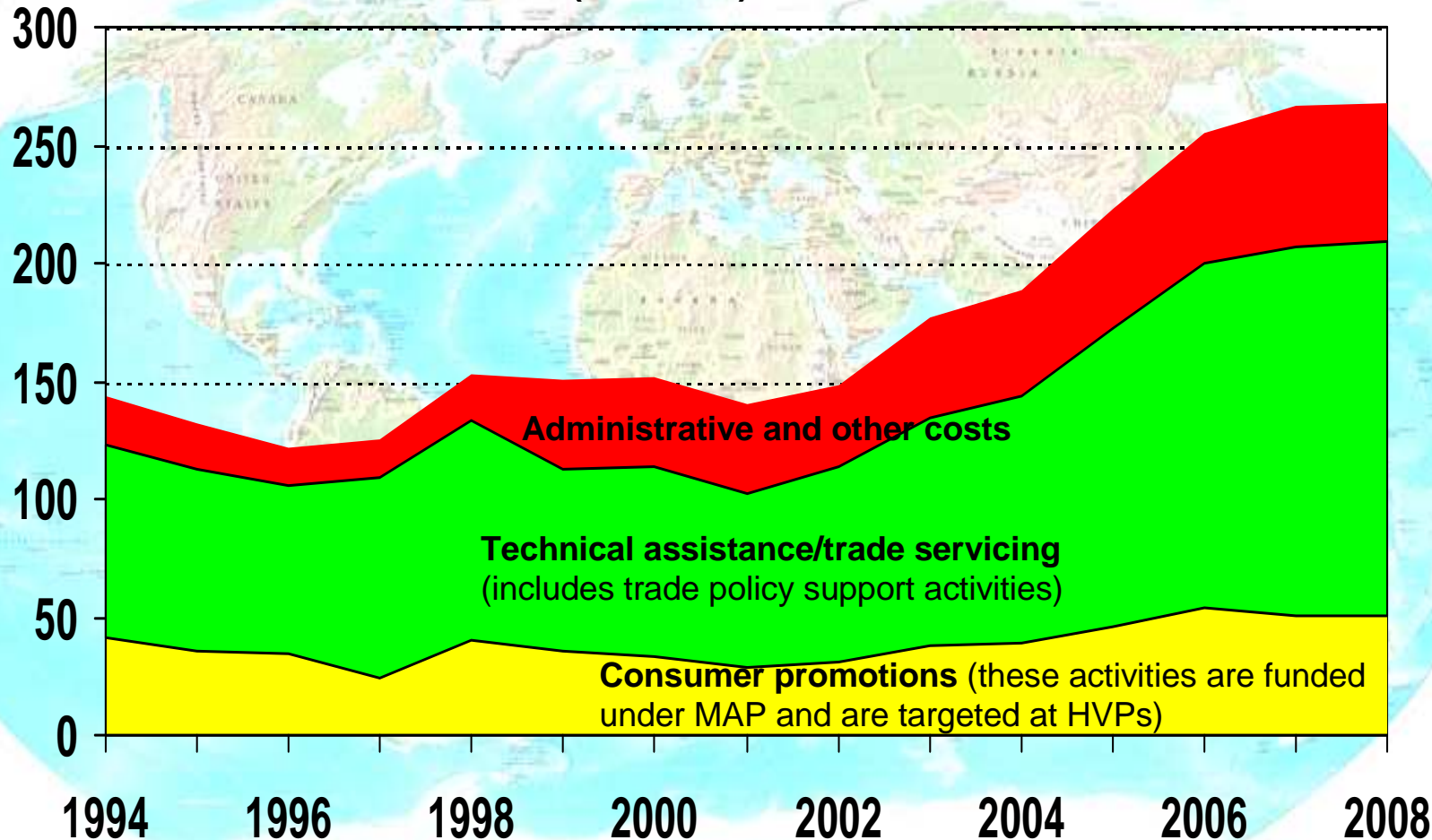
- Market development investment increased by almost 184% since 1996 (industry up 278% vs 104% by gov't)
- Government share of overall annual expenses has dropped to 40%
- Government commitment significantly increased in the 2002 Farm Bill (and maintained in the 2007 Farm Bill).
- MAP increased from \$85 million in 2001 to \$200 million today; FMD increased from \$28.3 million in 2001 to \$34.5 million today.
- This increase in gov't investment attracted additional industry contributions, leading to a 60% increase in the level of bulk commodity investment and a 69% increase in HVP investment since 2001



# Just What Is Market Development?

Technical assistance and trade servicing accounts for 60% of USDA's market development programs – consumer promotions under 20%

USDA's MAP and FMD costs (\$ million)



NOTE: Breakdown of costs based on USDA's share of expenses

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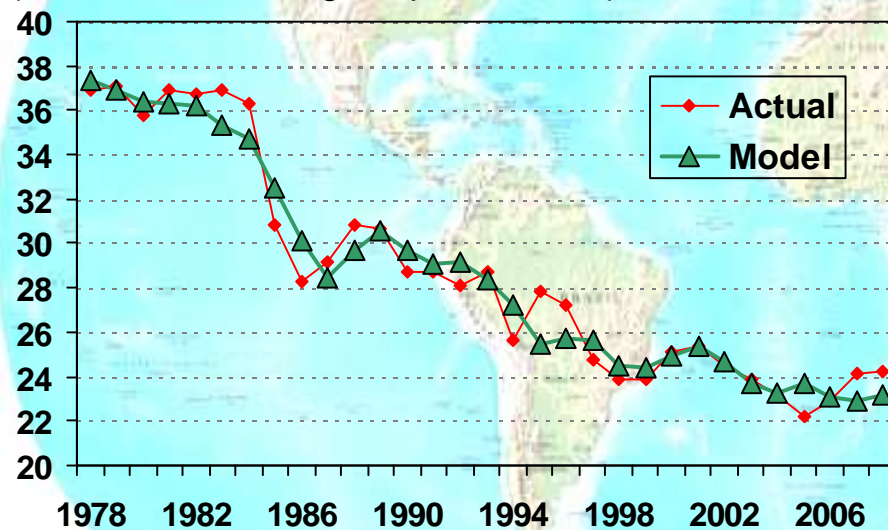


***Measuring the Trade and Economic Impacts  
of USDA's Market Development Programs***

# Trade Models Developed to Estimate Impact of Market Development on U.S. Market Share

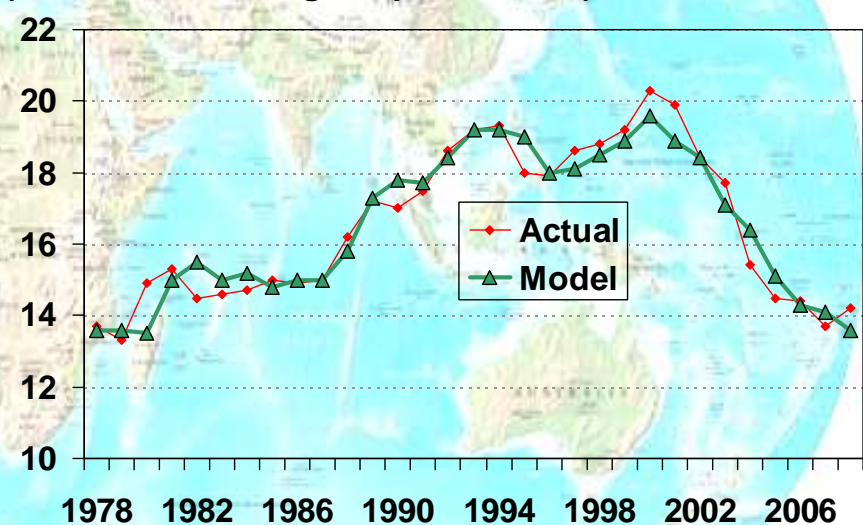
## Bulk/intermediate commodity model

(U.S. share of foreign imports -- in %)



## HVP model

(U.S. share of foreign imports -- in %)



Note: Models estimated by Global Insight using annual data from 1978-2008

# What Do The Models Reveal About How Market Development Affects U.S. Trade?

- While market development is a significant factor in both bulk commodity and HVP trade, each sector reacts very differently to promotion activities, thus justifying two separate models.
- Market development has a lagged impact on both product sectors but roughly twice as long for HVP trade – 7 years versus 3 years for bulk
- In the short run (1-3 years), bulk commodities are more responsive to market development. However, with its longer lags, the long run elasticity of HVP promotions is basically equal to that of bulk commodities at .19 (or .16 fully discounted per OMB guidance).
- How about exchange rates? Both bulk and HVP trade are 3-4 times more sensitive to changes in exchange rates than market development.
- **U.S. share of HVP trade has suffered since 2001 due to export disruptions from animal disease issues (AI and BSE).** This is accounted for in the HVP model.

A world map with a light blue and green color scheme, showing continents and oceans. The map is centered on the Atlantic Ocean. The text is overlaid on the map.

## ***How have U.S. agricultural exports benefited from the increased investment in market development since 2002?***

**Increased funding in USDA's MAP and FMD programs have attracted increases in industry contributions.**

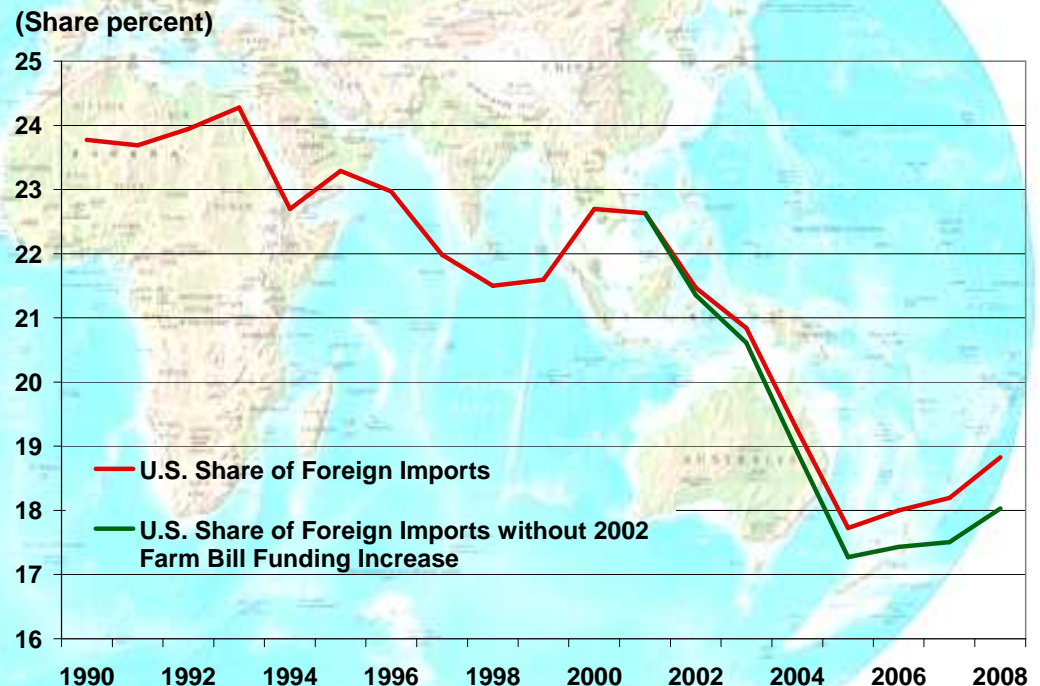
**The result: overall investment in bulk commodity promotion up by 67%; overall investment in HVP promotion up by 84%**



# Impact of Increased Market Development Since 2002 on U.S. Market Share

- Overall investment in market development (USDA and industry) increased significantly with 2002 Farm Bill and have been maintained at these levels.
- By 2008, annual spending reached \$570 million, up \$250 million (78%) from 2001.
- Result: By 2009, overall U.S. market share was 1.3 percentage points higher, with comparable gains in both bulk and HVPs
- Given the lagged effects of market development, most of the trade gains are back loaded and will extend well beyond the year of the investment.

**Without increases in market development originally brought about by 2002 Farm Bill, U.S. market share would be nearly 1.3 points lower**



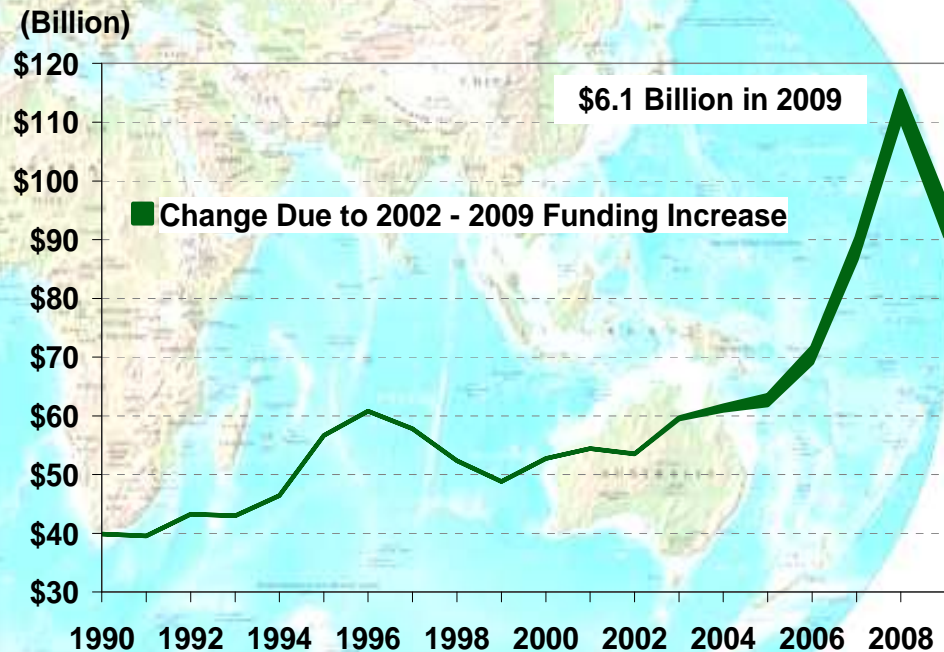
# Impact on U.S. Agricultural Exports of Maintained Increases in Market Development Since 2002

- U.S. export impacts attributed to market development results from simulated market share impacts and the level of world trade.

*Increases in USDA funding, plus increased contributions by program participants, have increased both bulk and HVP exports significantly!*

- By 2009, U.S. ag exports were \$6.1 billion higher than they would have been without the increase in market development called for in the 2002 and 2007 Farm Bills. Roughly 47% of these additional exports are indirect, or “halo”, effects.

- Marginal return on promotion: \$35 of additional exports per dollar of market development (using OMB’s multiyear discounting methodology). This is up from \$27-to-1 from previous study.



## ***Impacts From Increased Market Development Go Well Beyond Agricultural Export Gains***

***Increased exports from market development generates positive externalities, including almost 2% gains in annual net farm income and cash receipts and reduced domestic support payments***

	<b>2002 – 2008</b>	<b>Average</b>	<b>Level Change</b>
	<b>Average \$ Billion</b>	<b>Percent Change</b>	<b>\$ Billion</b>
<b>Farm Cash Receipts</b>	<b>248.6</b>	<b>1.76</b>	<b>4.37</b>
<b>Direct Government Payments</b>	<b>15.2</b>	<b>-0.36</b>	<b>-0.05</b>
<b>Net Cash Farm Income</b>	<b>76.4</b>	<b>1.91</b>	<b>1.46</b>
<b>Farm Assets</b>	<b>1713.6</b>	<b>2.01</b>	<b>34.44</b>

**(Base values taken from USDA February 2010 Baseline, changes from the baseline are reported as average annual values during the 2002-2008 period )**

## ***Impacts From Increased Market Development Spending Extend To The Overall Economy As Well***

***Increased exports from market development generated positive externalities for the overall economy***

<b>Impact of Market Development Spending from 2002 through 2008 vs. Flat (lower) Spending Scenario</b>	
<b>Total Economic Welfare to Government Expenditure Ratio</b>	<b>14.6:1</b>
<b>Total Economic Welfare to Total Expenditure Ratio (Government and Cooperators)</b>	<b>6.7:1</b>
<b>Total Economic Welfare gain - U.S. Economy</b>	<b>(+) \$1,109 million</b>
<b>Total Economic Welfare Gain - Outside the U.S.</b>	<b>(+) \$2,344 million</b>

**\* Benefits measured as the average annual from 2002 through 2008**

# General Equilibrium Impacts Associated With Increase In Market Development Since 2002

*Most gains are almost twice as high as previous study*

- **Farm cash receipts** increased by an average of \$4.4 billion a year
- **Direct government payments** fell as prices rise – down an average of \$54 million a year. However, this is not as favorable as previous study due to recent high commodity price levels (significantly above support levels).
- **Farm net cash income** increased \$1.5 billion per year (roughly 2%). This is 6 times greater than the increase in partnership spending since 2001, meaning market development has been a more effective form of income support than direct payments -- and it has the advantage of not being a WTO-disciplined activity.
- **Farm asset values** increase over \$34 billion, on average, due to higher farm income and farm activity.
- **US agricultural imports** rise somewhat due to higher U.S. prices - Still, export gains greatly exceed import gains.
- **Overall macro economy experiences gains of roughly \$1.1 billion in annual economic welfare gains.** This means farmers' gains from MAP/FMD do not come at the expense of the overall U.S. economy. Likewise, consumers in the rest of the world experience a welfare gain of \$2.3 billion as additional U.S. export competition modestly lowers ag prices in the rest of world.

# ***What Impact Would A Reduction in Market Development Have in the Future?***

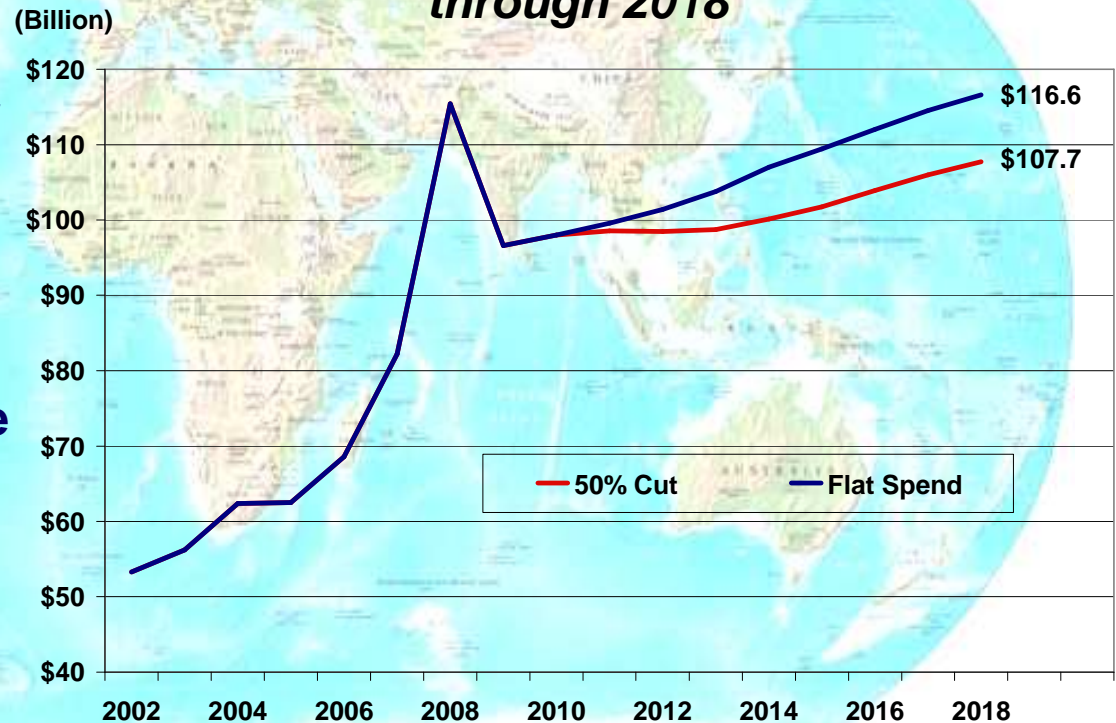
**Projecting the trade and economic impacts of a 50% funding cut relative to current authorized levels in the future:**

- **Status quo baseline:** defined as Total MAP remaining at \$200 million and FMD at \$34.5 million (FY 2011 and beyond). Industry contribution remains unchanged as well.
- **50% spending decrease scenario:** defined as MAP and FMD immediately decreasing to 50% of current levels. Assumes industry cuts contributions at the same rate. This is equivalent to a \$280 million reduction in annual overall partnership spending on market development beginning in FY 2011.
- **All results are updated and consistent with the February 2010 USDA Baseline**

# Projected Export Impacts of a 50% Cut in Market Development Funding

**Market development partnership can play a key role in expanding U.S. ag exports through 2018**

- **Maintaining partnership spending at current levels should help ag exports grow above \$116 billion by 2018.**
- **Cutting spending by 50% could reduce U.S. market share by nearly 1 percentage point and exports by \$8.9 billion from “status quo” levels by 2018.**



# General Equilibrium Impacts Associated With a 50% Reduction in Market Development

- **Farm cash receipts.** Farm receipts fall by almost \$5.9 billion (2%) as farm prices and production drop
- **Farm net cash income.** Drops by an annual average of \$2 billion (2.5%) – every \$1 decline in partnership spending on market development reduces farm net cash income by \$7.
- **Farm asset values.** Down by an average of \$44 billion. Land is a fixed resource and is the largest farm asset - changes in farm income & activity have a sizable impact on land values and hence, total asset values.
- **Agricultural imports** drop somewhat but, overall, exports fall even more, causing U.S. farmers to experience lower farm prices and income.
- **Direct government payments** Government payments are increased with reduced spending as farm prices fall (down \$60 million annually)
- Overall, the U.S. economy experiences negative welfare effects (-\$1.1 billion) as does the rest of world (-\$2.1 billion)



# Conclusions and Closing Thoughts

1. **Public sector support for FMD and MAP is important to keeping overseas market development successful as producer groups and smaller firms often times cannot maintain a consistent market development effort due to market and policy risks and lack of critical mass.** BSE and AI are examples of these risks. MAP and FMD programs provide a basis for coordinated U.S.-specific marketing efforts that would otherwise be fragmented, under-funded or non-existent.
2. **The \$250 million a year increase in market development since implementation of 2002 Farm Bill means total U.S. market development for ag products exceeds \$560 million annually.** However, even with the sharp increase in MAP and FMD funds since 2001, USDA's share is only 40% of the total – the rest comes from industry participants via check offs and other means.
3. **Roughly 60% of MAP and FMD funds are used for technical assistance and trade servicing, including trade policy support activities (i.e. issues related to resolving AI, BSE, and phytosanitary problems in overseas markets).** Only 20% is used for consumer promotions, which runs contrary to widespread belief by program critics that market development (and MAP in particular) is synonymous with narrowly focused, government subsidized advertising.

# Conclusions and Closing Thoughts

- The increase in overall market development stimulated by the 2002 Farm Bill and maintained in the 2007 Farm Bill has boosted the U.S. share of world ag trade and the level of U.S. ag exports.** By 2009, U.S. market share was over 1.3 percentage points higher than it would have been had funding remained at 2001 levels and U.S. exports \$6.1 billion higher. Given the lagged effects of market development, discounted future gains results in a return of \$35 in additional exports per additional dollar of market development.
- Halo effect associated with market development is estimated to account for almost 47% of MAP/FMD's total export impact,** making it a significant positive externality (although the effects on individual commodities and markets vary widely). This is up from 39% cited in previous study due to new study's higher elasticity estimates.
- Farm level and economy-wide impacts attributed to the increases in market development have generated significant positive externalities.** This includes increased farm income and an improved balance sheet, reduced direct government payments, and increased national economic welfare. This externality, plus the "halo" effect, helps justify the federal role in foreign market development and counter the charge that it is "corporate welfare".
- Government payments have been reduced by an average of \$54 million annually.** This provides a partial offset against the government's cost of operating MAP and FMD. In years where prices are under price support levels, the savings will go substantially higher.