



trade implications of the  
**2007 US farm bill proposals**



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## foreword

The provisions of the US *Farm Security and Rural Investment Act 2002* are due to expire in September 2007, and so debate on replacement legislation is currently under way in the United States. On 31 January, the US Administration announced its 2007 farm bill proposals to replace the current legislation. The proposals appear to be moving in the right direction, and may help to progress the World Trade Organisation Doha Round of multilateral trade negotiations; however, there is scope for further reforms to US agricultural policies.

Australia recently put forward a negotiating proposal – the **5 and 5 approach** – for the Doha Round trade talks on agriculture. Australia's approach seeks an additional 5 per cent cut to agricultural tariffs in WTO countries and a further US\$5 billion reduction in US overall trade distorting support.

In this report, the effects of the US Administration's 2007 farm bill proposals and the **5 and 5 approach** are analysed to highlight the benefits that would accrue to WTO members, including the United States. A new farm bill could potentially be shaped to improve the overall welfare of the US agriculture sector, as well as generate gains for the international community. As such, an opportunity still exists for the United States to reform its farm programs and contribute to a successful multilateral trade reform outcome.



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March 2007

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## summary

- » On 31 January, the US Administration announced its 2007 farm bill proposals. The proposed commodity programs (title 1) include changes to marketing loan rates, new countercyclical payments for program crops, additional income support, planting flexibility, and revised dairy and sugar programs.
- » Given the gap between WTO bound domestic support and actual expenditure on trade distorting support in the United States, it is clear that sizable cuts to bound support would be necessary if a reduction in actual spending is to be achieved.
- » Several of the Doha Round negotiating proposals tabled since October 2005 have called for substantial cuts to trade distorting domestic support. In particular, Australia's **5 and 5 approach** seeks an additional 5 per cent cut to agricultural tariffs in WTO countries and a further US\$5 billion reduction in US overall trade distorting domestic support.
- » Multilateral agricultural trade reform based on the **5 and 5 approach** analysed in this report would be expected to generate substantial benefits for the United States and other WTO members. This is reflected in the estimated potential expansion in agricultural trade from such an outcome.
- » Illustrative analysis undertaken here indicates that if further reductions in US trade distorting domestic support were to occur in conjunction with additional multilateral cuts to agricultural tariffs – according to the **5 and 5 approach** – the United States would experience an increase in agricultural exports of around US\$8.6 billion (in 2006 dollars) in 2020, relative to what would otherwise be the case (the 'reference case'). There would also be considerable global benefits, with world agricultural exports estimated to rise by US\$96 billion in 2020, relative to the reference case.
- » The findings suggest that much of the expansion in US agricultural exports and production would occur in the fruit, vegetable and meat industries. It is important to note that these industries are among the two-thirds of US agriculture that does not currently receive farm program payments.
- » Under a multilateral agricultural trade reform scenario, based on the **5 and 5 approach** analysed here, the increase in US gross national product is estimated to be US\$9.6 billion in 2020, relative to the reference case. Cuts to US trade distorting support would initiate an improved allocation of resources

in the US agriculture sector, strengthen the incentives of farmers to respond to market signals, and enhance overall economic welfare in the United States.

- » Analysis undertaken here suggests that the potential effects of the US Administration's 2007 farm bill proposals are likely to be modest. US production and exports of fruits and vegetables are expected to increase marginally, while production and exports of 'program crops' and meat are likely to decline slightly over the short to medium term, relative to the reference case. Nonetheless, US agricultural production and exports are estimated to continue to grow over time, but not as strongly as projected to occur under the reference case.

## US farm bill – current commodity programs

Over time, a cycle has emerged where US farm policy is determined every five to seven years through legislation that is referred to as the 'farm bill'. US farm policies are written by the Congress and implemented by the US Administration, through the US Department of Agriculture. The provisions of the *Farm Security and Rural Investment Act 2002* (the 2002 US farm bill) are due to expire in September 2007.

The main commodities covered by provisions of the 2002 farm bill include:

- » 'program crops': wheat, rice, feed grains, cotton and soybeans
- » dairy and sugar.

Commodities that do not receive direct support under the 2002 farm bill include meat, fruit and vegetables.

### *program crops*

Program crops have been supported mainly through payments from the US budget. These payments are distributed by the Commodity Credit Corporation (CCC) of the US Department of Agriculture. Producers can receive up to three types of government payments:

- » ***loan deficiency payments or marketing loans***

When market prices at the farmgate level fall below administratively set minimum producer prices (called loan rates), unit returns to producers are supplemented by subsidies, termed loan deficiency payments or marketing loans. The size of payments depends on the quantity sold, the market price and the loan rate.

- » ***direct payments***

Producers with historical 'program crop' bases receive direct payments. Payments are based on historical yield and base acres established for each eligible producer.

## box 1 US domestic support and WTO 'boxes'

### **amber box**

The aggregate measure of support (AMS) – sometimes referred to as 'amber box' support – is acknowledged to be trade distorting. The main components of amber box support are market price support and nonexempt government payments – for example, US loan deficiency payments, marketing loans, and the Milk Price Support Program (MPSP). Amber box support was subject to reduction commitments under the Uruguay Round Agreement on Agriculture.

### **green box**

Domestic support is categorised as 'green box' if it is considered to be minimally trade distorting. Categories of green box support include domestic food aid, relief from natural disasters, income insurance and safety net programs, structural adjustment programs (producer and resource retirement) and investment aids, environmental payments, public stockholding for food security purposes, government services and regional assistance programs, and decoupled income support – for example, US direct payments. Green box support is currently exempt from reduction commitments or limitations.

### **blue box**

Under the Uruguay Round Agreement on Agriculture, 'blue box' support refers to direct payments that would normally be classified as trade distorting, but are provided under production limiting arrangements, such as acreage reduction programs or payments based on a fixed number of animals. Blue box support is currently exempt from reduction commitments or limitations.

### **de minimis**

The *de minimis* provisions were designed to allow countries to maintain minimum levels of trade distorting domestic support. Under the *de minimis* provisions, if the value of support is less than a specified percentage of the value of agricultural production then the support is not included in the AMS, and so is not subject to reduction commitments. However, if the value of support exceeds the specified percentage, the support is included in the AMS and is subject to the required AMS cuts and limitations.

For developed countries, domestic support is categorised as *de minimis* and exempt from cuts if:

- » product specific amber box support for a commodity is less than 5 per cent of the value of production for that commodity (10 per cent for developing countries).
- » non product specific amber box support is less than 5 per cent of the total value of agricultural production (10 per cent for developing countries).

**» countercyclical payments**

Countercyclical payments were introduced in the 2002 farm bill. They followed crop market loss payments (emergency assistance) that were made on an ad hoc basis from 1998 to 2001. The countercyclical payments are made on base acres for direct payments in the green box (see box 1 for definitions of US domestic support and WTO 'boxes'). In addition to base acres for each eligible producer, countercyclical payments are also based on historical yield, the loan rate or market price (whichever is higher) and the target price. Under the 2002 farm bill, base acres for both countercyclical and direct payments could be updated from the 1986-88 base to a 1998-2001 base, while the yield base for countercyclical payments could also be updated to 1998-2001. However, WTO rules stipulate that direct payments in the green box should be made on fixed bases.

While the July 2004 WTO Framework Agreement retains the existing blue box provisions, it also proposes a new provision that will extend blue box status to payments that would not qualify under existing WTO rules.

'Direct payments that do not require production' would be eligible for blue box status if:

- such payments are based on fixed and unchanging bases and yields or
- livestock payments made on a fixed and unchanging number of head and
- such payments are made on 85 per cent or less of a fixed and unchanging base level of production. (WTO 2004)

If the new blue box provisions were to be agreed by WTO members, the United States would not need to have production limiting arrangements, such as acreage diversion programs, in place to claim blue box status for countercyclical payments.

## *dairy and sugar*

Dairy and sugar have been supported mainly through trade barriers that restrict imports. Even though import barriers are not part of the farm bill, measures such as limited import quantities under tariff quotas, high above quota tariffs, and application of the special safeguard ensure that:

- » domestic milk prices are generally maintained above minimum prices under the milk price support program and
- » domestic sugar prices are maintained above loan rates, to avoid forfeitures of sugar to the CCC.

Import barriers provide actual price support that is greater than the level of support provided by payments under the sugar and dairy programs.

## dairy

The dairy program is designed to maintain high domestic prices for dairy products. Key elements of the program include price support, marketing orders, income loss payments, and export subsidies.

### » **milk price support program (MPSP)**

The CCC purchases surplus dairy products to ensure that the domestic price for manufacturing milk is either equal to or above the milk support price. The milk support price is currently set at US\$9.90 per hundred pounds (cwt).

### » **federal milk marketing orders**

Federal milk marketing orders define four classes of milk utilisation, and establish minimum average prices for the classes (table 1). Federal marketing orders raise returns to dairy producers through premiums financed by domestic consumers.

table 1 **classes of milk, and average prices in 2005**

class	average price US\$/cwt
I plain and flavoured whole milk, fat reduced milk and eggnog	17.13
II milk used for cream, cottage cheese, frozen desserts and other food products	13.48
III milk used to produce hard cheeses and cream cheese	14.05
IV milk used to produce butter and any milk product in dried form	12.88

Source: US Department of Agriculture (2006).

### » **milk income loss contract (MILC) payments**

Eligible producers can receive a monthly payment when the benchmark milk price (US\$16.94/cwt) is higher than the monthly class I price in Boston. The payment is calculated as monthly 'eligible milk production marketed' (up to 2.4 million pounds per financial year for a single operation) multiplied by 34 per cent of the difference between the benchmark milk price and the monthly class I price in Boston.

» **export subsidies: dairy export incentive program (DEIP)**

Export subsidies enable limited quantities of skim milk powder, cheese, butter and butter oil to be sold annually on export markets, at prices below US domestic prices.

**sugar**

The US sugar program is designed to maintain high domestic prices for cane and beet sugar. Key elements of the program include price support under the loan rate, and marketing allotments.

» **loan rate**

The CCC provides loans to processors of domestically grown sugar to enable them to hold sugar for sale at a later date. Raw cane sugar and refined beet sugar is pledged as collateral. When the sugar is sold, the processor repays the loan to the CCC. The loans are of a 'nonrecourse' nature: the miller or processor could choose to forfeit sugar to the CCC, if market prices were insufficient to repay the loan.

Under the 2002 farm bill, loan rates are set at US18c/lb for raw cane sugar, and US22.9c/lb for refined beet sugar.

» **marketing allotments**

Marketing allotments are the provision of marketing rights to millers and processors, on the basis of historical production, production capacity and the ability to market sugar. Flexible allotments are allocated by the Secretary of Agriculture, such that the marketing of sugar processed from beets and domestically produced cane should not result in forfeitures of sugar to the CCC.

If allotments are implemented, millers and processors are not permitted to sell sugar (in excess of their allotment) on the domestic market. Any sales that exceed the allocated allotment are subject to penalty rates.

# 2

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## 2007 farm bill proposals

On 31 January, the US Administration announced its 2007 farm bill proposals (US Department of Agriculture 2007). The proposed changes to farm programs reflect adjustments to policy settings under the 2002 farm bill, rather than an overhaul of existing farm policies.

It is important to recognise that the US Congress, rather than the US Administration, retains the responsibility for drafting and passing legislation. The US Administration's proposals represent an input into that process.

The 2007 farm bill proposals largely correspond to the 2002 farm bill titles. The proposed commodity programs (title 1) and their potential effects are outlined below:

### *proposed commodity programs and potential effects*

#### **changes to marketing loan rates**

**proposal** – new loan rates based on the crop's average market price over five years (excluding high and low years), with maximum loan rates as established in the House of Representatives approved version of the 2002 farm bill.

**potential effects** – loan rates in the proposal have been determined under the assumption that prices for grain and oilseeds are expected to remain at high levels. Given this, and proposed cuts to marketing loan rates, it is anticipated that marketing loan payments would be lower over the short to medium term.

#### **new countercyclical payments for program crops**

**proposal** – replacing countercyclical payments based on price with countercyclical payments based on revenue.

**potential effects** – the proposed countercyclical payments program would remain linked to crop prices, but the link is now weaker. On the basis of current price projections, expenditure under the new program is likely to decrease over the short to medium term.

### **additional income support**

**proposal** – increasing direct payments by \$5.5 billion over ten years.

**potential effects** – the direct payment rate for upland cotton would increase from US\$6.67c/lb to US\$11.08c/lb. Additional direct payments to producers of upland cotton seem to coincide with the WTO Cotton Panel ruling that required the Congress to repeal step 2 domestic and export competitiveness provisions for upland cotton. While domestic prices for program crops are generally forecast to increase over the next few years, upland cotton is the exception – it appears that this is partly because step 2 was repealed.

### **planting flexibility**

**proposal** – allowing planting flexibility for fruit, vegetables and wild rice on program crop base acres.

**potential effects** – this modification is consistent with the WTO Cotton Panel ruling, and would decrease the vulnerability of US farm program provisions to any challenges under the WTO.

### **revised dairy and sugar programs**

**proposal** – Milk Price Support Program (MPSP).

**potential effects** – the support price for milk would remain unchanged at US\$9.90/cwt.

**proposal** – reauthorize the Milk Income Loss Contract (MILC) program.

**potential effects** – with payments on a historical base, and a declining payment for the price shortfall, expenditure under the proposed MILC program is estimated to decline over the short to medium term.

**proposal** – balance sugar supply and demand, and prevent forfeitures.

**potential effects** – the loan rate for sugar would remain unchanged at US\$18c/lb. It is expected that a revised marketing allotment program would be used to enable lower domestic production of sugar, and accommodate sugar import arrangements with Mexico under the North American Free Trade Agreement.

# 3

## actual and bound levels of US domestic support

Domestic support negotiations under the WTO are based on reductions in bound domestic support (maximum levels of support that WTO members agree not to exceed). Actual spending on trade distorting support cannot exceed this binding. The distinction between actual levels and WTO commitments is crucial to analysing proposed cuts to domestic support under the US Administration's 2007 farm bill proposals.

The extent of reform to US domestic support under multilateral trade negotiations will depend on the limits placed on trade distorting domestic support. When cuts to US trade distorting support are undertaken, actual spending would only be constrained when the reductions eliminate gaps between bound and actual spending, which vary from year to year. Under such situations, applied levels of trade distorting domestic support in the United States would be reduced to the new binding. Conversely, negotiated cuts that fail to remove the gaps between actual spending and bound support will not reduce the amount of actual trade distorting support that is provided to US farmers.

### *actual levels of trade distorting domestic support*

The United States has notified to the WTO its domestic support payments for calendar years 1995 through 2001 (table 2). More up to date information on US domestic support is available in a recent simulation exercise that was undertaken by Canada (table 3).

table 2 **US domestic support notifications**

	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m
current total AMS	6 214	5 898	6 238	10 392	16 862	16 803	14 413
<i>de minimis</i>	1 641	1 153	804	4 742	7 435	7 341	7 054
emergency assistance	0	0	0	2 811	5 468	5 464	4 640

Source: ERS (2007).

table 3 US domestic support information

	2002	2003	2004	2005
	US\$m	US\$m	US\$m	US\$m
current total AMS	9 688	7 174	12 071	12 482
<i>de minimis</i>	3 384	2 518	2 333	1 960
countercyclical payments	1 803	544	4 224	5 224

Source: ICTSD (2006).

### *bound levels of trade distorting domestic support*

Currently, the only WTO binding is for amber box support (see box 1). In 2000, the United States' final amber box support limit was set at US\$19.1 billion.

Under blue box provisions in the July 2004 WTO Framework Agreement, blue box support cannot exceed 5 per cent of the total value of agricultural production. If this provision were included in a final WTO agreement, it would translate into a blue box limit of US\$9.6 billion for the United States. Together, the limit on US product specific and non product specific *de minimis* would be US\$19.2 billion.

If the final WTO agreement included a limit on overall trade distorting domestic support (adding up amber box, blue box and *de minimis* support), the base for the United States would be US\$47.9 billion.

Given the gap between bound (US\$19.1 billion) and estimated actual (US\$12.5 billion) amber box support in 2005, it is clear that sizable cuts to bindings would be essential if the United States is to achieve a reduction in actual levels of support.

# 4

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## Doha Round negotiations

In suspending the negotiations on 24 July 2006, WTO Director-General Pascal Lamy urged WTO members to take 'time out to review the situation, time out to examine the available options and time out to review positions' (WTO 2006).

The progress made on the various elements of the negotiating agenda up to July 2006, including the key outcomes of the Hong Kong ministerial meeting in December 2005, was put on hold, pending the resumption of the multilateral trade talks when the negotiating environment was appropriate (box 2). WTO members resumed negotiations 'fully across the board' on 7 February 2007 (WTO 2007).

### box 2 key outcomes of the Hong Kong ministerial meeting, December 2005

#### *agreement among WTO members: agriculture negotiations*

##### *market access*

Four bands for structuring cuts to bound tariffs (maximum rates that WTO members agreed not to exceed), with each band covering a different range of initial tariffs.

##### *domestic support*

Three bands for reductions in the aggregate measurement of support (AMS) and in overall trade distorting domestic support, with larger cuts in the highest bands:

- » band 1 - the country with the highest level of support: European Union
- » band 2 - the two countries with the second and third highest levels of support: United States and Japan
- » band 3 - all other countries

Developed countries in the lower bands with high levels of AMS relative to their total value of agricultural production will make an additional cut to AMS.

##### *export subsidies*

The parallel elimination of all forms of export subsidies and disciplines on all export measures with equivalent effect to be completed by the end of 2013. All forms of export subsidies for cotton to be eliminated by developed countries in 2006.

Source: WTO (2005).

At present, it is not clear when the Doha Round of negotiations will conclude. As such, any analysis of possible multilateral trade reform outcomes is illustrative only. The only available information that may provide some insights into the range of respective positions of key WTO members is the negotiating proposals that were tabled in October 2005 (box 3). These proposals are characterised by different levels of ambition for cuts to domestic support and agricultural tariffs. There is a need for further clarity on several elements of the negotiations on market access, especially the special safeguard mechanism, special products, and sensitive products.

In September 2006, Australia put forward the **5 and 5 approach** in an attempt to break the impasse in Doha trade talks between the United States and the European Union. Australia's approach seeks deeper cuts to tariffs in WTO countries (an extra tariff cut of 5 per cent in each of the four tariff bands, and an additional 5 per cent cut to the minimum average tariff cut) than the reductions specified in the G20 proposal on market access, and a further US\$5 billion cut to the reductions in US overall trade distorting domestic support that were specified in the US proposal on domestic support (table 4).

Given this background, two illustrative agricultural reform scenarios – based on the US Administration's 2007 farm bill proposals and underlying key elements of the negotiating proposals tabled during the Doha Round – are examined with the aim of providing broad insights into the potential implications for US agricultural production, exports and gross national product, as well as global agricultural trade.

table 4 **proposed cuts to agricultural tariffs and US domestic support**

	bound agricultural tariffs		overall trade distorting domestic support	
	average tariff cut	cut to US limit		resulting US limit <sup>a</sup>
	%	US\$b	%	US\$b
US proposal	66	25.3	53	22.6
EU proposal	39	28.7	60	19.2
G20 proposal	54	35.9	75	12
5 and 5 approach	59	30.3	63	17.6

<sup>a</sup> 'Resulting US limit' = US\$479 billion - 'cut to US limit'.

box 3 key elements of US, EU and G20 agriculture proposals tabled in October 2005

market access

United States	European Union	G20 <sup>a</sup>
Bound tariff cuts of 55–90% (maximum cuts where bound tariffs are over 60%)	Bound tariff cuts of 35–60% (maximum cuts where bound tariffs are over 90%)	Bound tariff cuts of 45–75% (maximum cuts where bound tariffs are over 75%)
Tariffs capped at 75% for developed countries	Tariffs capped at 100% for developed countries	Tariffs capped at 100% for developed countries
1% of total agricultural tariff lines can be nominated as 'sensitive products'	8% of total agricultural tariff lines can be nominated as 'sensitive products'	

domestic support

United States	European Union	G20 <sup>a</sup>
Cuts to overall trade distorting domestic support of 75% in the first band, 53% in the second band, and 31% in the third band	Cuts to overall trade distorting domestic support of 70% in the first band, 60% in the second band, and 50% in the third band	Cuts to overall trade distorting domestic support of 80% in the first band, 75% in the second band, and 70% in the third band
Cuts to AMS of 83% in the first band, 60% in the second band, and 37% in the third band	Cuts to AMS of 70% in the first band, 60% in the second band, and 50% in the third band	Cuts to AMS of 80% in the first band, 70% in the second band, and 60% in the third band
'Blue box', capped at 2.5% of the total value of agricultural production	'Blue box', capped at 5% of the total value of agricultural production	
Cut <i>de minimis</i> support by 50%	Cut <i>de minimis</i> support by 80%	

<sup>a</sup> Argentina, Bolivia, Brazil, Chile, China, Cuba, Egypt, Guatemala, India, Indonesia, Mexico, Nigeria, Pakistan, Paraguay, Philippines, South Africa, Tanzania, Thailand, Uruguay, Venezuela and Zimbabwe.

Note: Given that agreement was reached on the elimination of export subsidies, proposals relating to export subsidies are not reported here.

Sources: European Commission (2005); ICTSD (2005); USTR (2005).

# 5

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## potential effects of reform

### *description of reform scenarios*

In the two scenarios described below, it is assumed that the specified illustrative reform will be phased in evenly, commencing in 2007.

- » Scenario 1 highlights the potential effects of the US Administration's 2007 farm bill proposals in the absence of multilateral agricultural trade reform.
- » Scenario 2 demonstrates that there are opportunities for the United States to move beyond the US Administration's 2007 farm bill proposals and undertake multilateral agricultural trade reform, based on Australia's **5 and 5 approach**, that could benefit the US agriculture sector and the world more generally.

### **scenario 1 – 2007 farm bill proposals in the absence of multilateral trade reform**

#### ***key assumptions for scenario 1***

- » US overall trade distorting domestic support reflects provisions under the US Administration's 2007 farm bill proposals (phased in over five years).
- » No changes to agricultural trade policies in the rest of the world.

### **scenario 2 – 2007 farm bill proposals with 5 and 5 approach to multilateral trade reform**

#### ***key assumptions for scenario 2***

Following Australia's **5 and 5 approach**:

- » 'G20 proposal' cuts to bound agricultural tariffs in each tariff band, with an additional tariff cut of 5 per cent in each band.
- » A further US\$5 billion cut (63 per cent cut) to US overall trade distorting domestic support, under the US proposal on domestic support (see box 3 and table 4).

**further assumptions under scenario 2**

- **market access**
  - » Cuts to bound agricultural tariffs for developed countries as set out in table 5.
  - » Bound agricultural tariffs capped at 100 per cent for developed countries.
  - » Reduction commitments by developed countries to be phased in evenly over six years.
  - » Tariff cuts for developing countries to be two-thirds of the cuts required of developed countries:
    - reduction commitments by developing countries to be phased in evenly over ten years
    - bound tariffs capped at 150 per cent for developing countries.

table 5 **bound tariff cuts in four tariff bands**

band	tariff thresholds	tariff cut
1	$0\% \leq 20\%$	50%
2	$> 20\% \leq 50\%$	60%
3	$> 50\% \leq 75\%$	70%
4	$> 75\%$	80%

- **domestic support**
  - » Cuts to overall trade distorting domestic support for developed countries to be:
    - 75 per cent in the first band
    - 63 per cent in the second band
    - 55 per cent in the third band.
  - » Domestic support reductions for developing countries to be two-thirds of the cuts required of developed countries
    - reduction commitments by developing countries to be phased in evenly over ten years.
- **export subsidies**
  - » Eliminate export subsidies by 2013.

## quantitative analysis of scenarios

ABARE's global trade and environment model (GTEM) is used to analyse the two scenarios. GTEM is a dynamic computable general equilibrium model of the world economy and is based on the GTAP version 6 database (Global Trade Analysis Project model). It captures intersectoral effects and links regions through trade and investment, making it a suitable tool to analyse the effects of trade reform. Detailed information on GTEM is available on ABARE's website ([abareconomics.com](http://abareconomics.com)).

The GTEM simulation results are expressed, unless otherwise stated, as deviations from the corresponding levels in the 'reference case', where existing policies are maintained. Simulation results are reported for 2020, with values expressed in 2006 US dollars.

The effects of developments in the biofuels industry are not analysed in the scenarios. Ethanol represents a rapidly growing source of demand for corn. The resulting higher corn prices may divert corn away from exports and other uses.

## simulation results

The estimated effects on production of major US agricultural commodities are shown in figure A.

The estimated changes in total agricultural exports under each of the reform scenarios, relative to the reference case, are shown in figure B.

The estimated effects on the value of major US agricultural exports under each of the scenarios, relative to the reference case, are shown in figure C.

It is important to recognise that the results illustrated in figures A, B and C are expressed as deviations from corresponding levels in the reference case, where existing policies are maintained. Under scenario 1,

fig A **change in US agricultural production, 2020** relative to the reference case

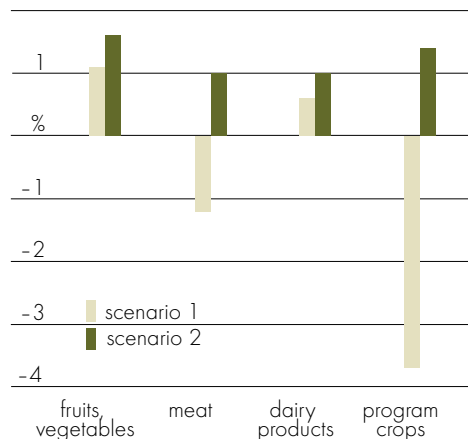


fig B **change in agricultural exports, 2020** relative to the reference case

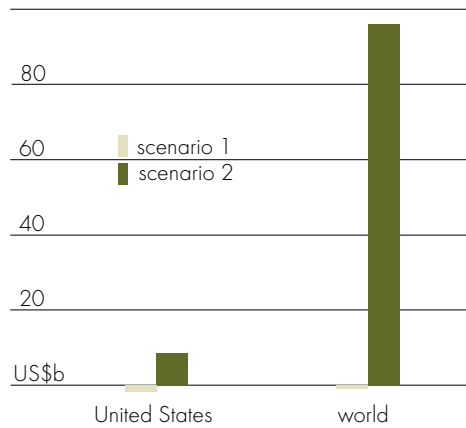
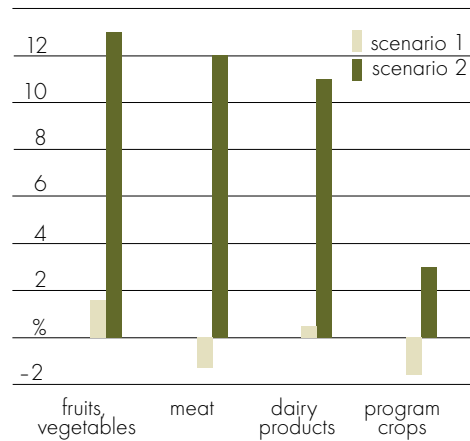


fig C **change in US agricultural exports, 2020** relative to the reference case



US agricultural production and exports would continue to grow over the period 2007-2020, but not as strongly as projected to occur under the reference case.

### **scenario 1 – 2007 farm bill proposals in the absence of multilateral trade reform**

#### ***change in agricultural production***

In this scenario, the expansion in US fruit and vegetable production is estimated to be 1.1 per cent in 2020, while for dairy products it would be around 0.6 per cent in 2020, relative to the reference case. Cuts to loan and countercyclical payments for feed grains would increase the cost of livestock feed rations and cause production of meat to contract by around 1.2 per cent in 2020, relative to the reference case. The dairy industry would also be affected by high feed costs, but this is likely to be offset by changes to payments under the revised dairy program. Production of program crops is estimated to decrease by 3.7 per cent in 2020, relative to the reference case (figure A).

It is important to highlight that US agricultural production would continue to grow under this scenario, but not as strongly as projected to occur under the reference case.

**change in agricultural exports**

US agricultural exports are estimated to fall by US\$700 million in 2020, relative to the reference case. It is likely that lower marketing loan and countercyclical payments would reduce US exports of program crops. These changes are expected to open up new opportunities for several countries to increase agricultural exports to markets currently supplied by the United States. However, world agricultural trade is estimated to decline by US\$90 million in 2020, relative to the reference case, because gains to these countries tend to be outweighed by the lower overall earnings that accrue to US exporters (figure B).

The rise in the value of US fruit and vegetable exports is estimated to be only 1.6 per cent in 2020, relative to the reference case. Cuts to loan and countercyclical payments provided to feedgrain industries would increase the cost of livestock feed rations and cause the value of meat exports to contract by about 1.3 per cent in 2020, relative to the reference case. The value of US program crop exports is estimated to decrease by 1.6 per cent in 2020, relative to the reference case. The value of exports of dairy products would rise by less than 1 per cent; this slight change can be attributed to the modest reform under the revised dairy program (figure C).

Again, the value of US agricultural exports would continue to grow under this scenario, but not as strongly as projected to occur under the reference case. It is also important to understand that extension of the 2002 farm bill, in the absence of multilateral trade reform, would not decrease the vulnerability of current US farm programs to challenges under the WTO dispute settlement process.

**change in gross national product**

Under scenario 1, US GNP is estimated to expand by around US\$2 billion in 2020, relative to the reference case. Cuts to trade distorting domestic support would begin to spur adjustment in the agriculture sector, and shift some resources away from production of sugar, dairy products and program crops and into higher earning activities in the US agriculture sector.

However, in the absence of genuine reform – beyond the changes to commodity programs under the US Administration's 2007 farm bill proposals – the program crop, sugar and dairy industries will continue to attract resources that would otherwise earn a higher return in other areas of the US agriculture sector.

## **scenario 2 – 2007 farm bill proposals with 5 and 5 approach to multilateral reform**

### ***change in agricultural production***

When further reductions in US trade distorting domestic support – beyond the policy changes to commodity programs under the US Administration’s 2007 farm bill proposals – are complemented by additional cuts to agricultural tariffs in WTO countries, it is estimated that US production of fruits and vegetables would increase by 1.6 per cent in 2020, meat by 1 per cent, dairy products by 1 per cent, and program crops by 1.4 per cent, relative to the reference case (figure A).

Cuts to agricultural tariffs in other countries are expected to provide opportunities for increases in US agricultural production and exports. Gains to US farmers from cuts to agricultural tariffs in other countries are likely to form an important component of the overall benefits to the agriculture sector from reform under scenario 2 because such tariff cuts have an important role in offsetting the adjustment costs borne in certain US agricultural industries.

### ***change in agricultural exports***

US agricultural exports would rise by US\$8.6 billion in 2020, relative to the reference case. There would also be a boost to global trade, with the expansion estimated to be more than US\$96 billion in 2020, relative to the reference case (figure B).

Most of the estimated increase for the United States occurs in the fruit, vegetable and meat industries. It is important to note that these industries are among the two-thirds of US agriculture that does not receive farm program payments (Thompson 2005).

Multilateral agricultural trade reform based on Australia’s **5 and 5 approach** would be expected to contribute to increased exports of fruits and vegetables, and meat, with the estimated expansion in the value of US trade being 13 per cent and 12 per cent in 2020 respectively, relative to the reference case. Similarly, the value of exports of US dairy products and program crops would be boosted by around 11 per cent and 3 per cent in 2020 respectively, relative to the reference case (figure C).

### ***change in gross national product***

Under scenario 2, the increase in US gross national product is estimated to be US\$9.6 billion in 2020, relative to the reference case. This is nearly five times

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greater than the expansion under the first scenario. Multilateral agricultural trade reform based on the **5 and 5 approach** would initiate an improved allocation of resources in the agriculture sector, strengthen the incentives of farmers to respond to market signals, and enhance overall economic welfare in the United States.

### *market access elements that restrict trade*

It is important to recognise that the analysis undertaken here is illustrative, and the magnitudes of the benefits estimated under the scenarios should be interpreted as only a broad indication of the expected effects of multilateral agricultural trade reform. For instance, the scenarios do not incorporate market access elements such as special products and the special safeguard mechanism (as part of the special and differential treatment afforded to developing countries) and sensitive products.

These provisions have the potential to undermine the prospective benefits from cuts to tariffs. The open-ended nature of these provisions means that further clarity is required to comprehensively analyse them and provide an accurate assessment of their effects.

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