

**Analysis of a Continuation of
The 1990 Farm Bill
With 23% NFA**

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Analysis of the 1990 Farm Bill with 23% Normal Flex Acreage

At the request of the House Appropriations Committee, the Food and Agricultural Policy Research Institute (FAPRI), located at the University of Missouri and Iowa State University, analyzed the impacts of extending a modified version of the 1990 Farm Bill for the 1996-2002 period. The impacts of the scenario are measured against FAPRI's January 1999 baseline, details of which are reported in the *FAPRI 1999 U.S. Agricultural Outlook*, Staff Report #1-99 and posted on the FAPRI web site (www.fapri.missouri.edu). The baseline assumes continuation of current policies, i.e. the Federal Agriculture Improvement and Reform (FAIR) Act. Detailed impact tables for the scenario are included in the Appendix.

1990 FARM BILL SCENARIO ASSUMPTIONS

Generally, the scenario assumes the provisions of the Food, Agriculture, Conservation and Trade Act of 1990, as well as the budget reconciliation agreements of 1990 and 1993. In addition, instead of assuming a simple extension of the 1990 Farm Bill, some modifications, to be discussed later, were made based on meetings with staff of the Appropriations and Agriculture Committees.

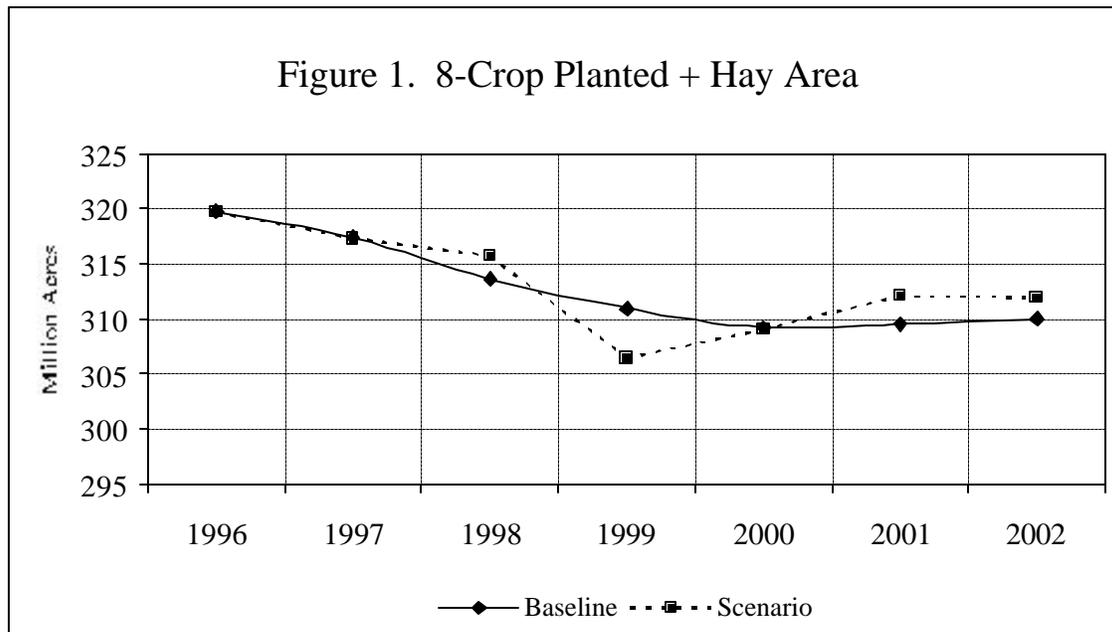
- Crop-specific base acreage and associated planting restrictions are continued.
- Authority for the Acreage Reduction Program (ARP) and the 0,50-85 program continues in the scenario.
- The Farmer-Owned Reserve (FOR) operates under the same rules as under the previous legislation.
- Target prices are held fixed at 1995 levels.
- Marketing loan rates are calculated according to the formulas of the 1990 bill. With the exception of soybeans, formulas are based on 85% of the 5-yr Olympic average of market prices. For wheat and feed grains, the Secretary had the discretion to make downward adjustments based on expected stocks/use ratios as well as additional adjustments to maintain export competitiveness. At the request of Congressional staff, an adjustment equal to one-half of the Secretary's authority based on stocks/use ratios is employed. No additional adjustments are made based on export competitiveness. For soybeans, the loan rate is fixed at \$4.92 per bushel. With the exception of soybeans, loan rates under the scenario are higher than the baseline. For example, the wheat loan rate averages \$0.34 per bushel higher than the baseline, and corn averages \$0.18 per bushel higher.
- At the time the FAIR Act was passed, budget targets determined the allowable projected spending under the 1996 legislation. To make a more fair comparison, the assumption was made that the same budget targets should be applied to an extension of the 1990 Farm Bill. This was accomplished by increasing the Normal Flexible Acreage (NFA) rate to 23%, up from the 15% designated in the 1990 Farm Bill. The NFA rate was increased by roughly the amount needed to generate the savings of the FAIR Act, as measured by Congressional Budget Office (CBO) against their Dec. 1995 baseline.
- The dairy price support program continues, as do producer assessments.

- The FAPRI baseline includes all provisions of the legislative packages passed in 1998. For the scenario, only selected provisions of the legislation are included. Specifically, outlays associated with aid packages for Russia are included in the scenario. Monies for disaster assistance due to 1998 crop losses, as well as multi-year losses, are included in the scenario. Payments to hog producers are also included in the scenario. The payments made to crop producers and dairy farmers for “Market Loss Assistance” are not included in the scenario.
- Assumptions regarding enrollment in the Conservation Reserve Program (CRP) are unchanged from the FAPRI baseline. CRP acreage is projected to expand to 35 million acres by 2002.
- The baseline assumes that the Export Enhancement Program (EEP) will not be used over the 1999-2002 period. This assumption is held constant under the scenario.
- The scenario assumes actual crop yields and demand conditions for the 1996-98 period. For the projection period, yields and demand conditions are consistent with the FAPRI baseline.

MAJOR RESULTS

Crop Area

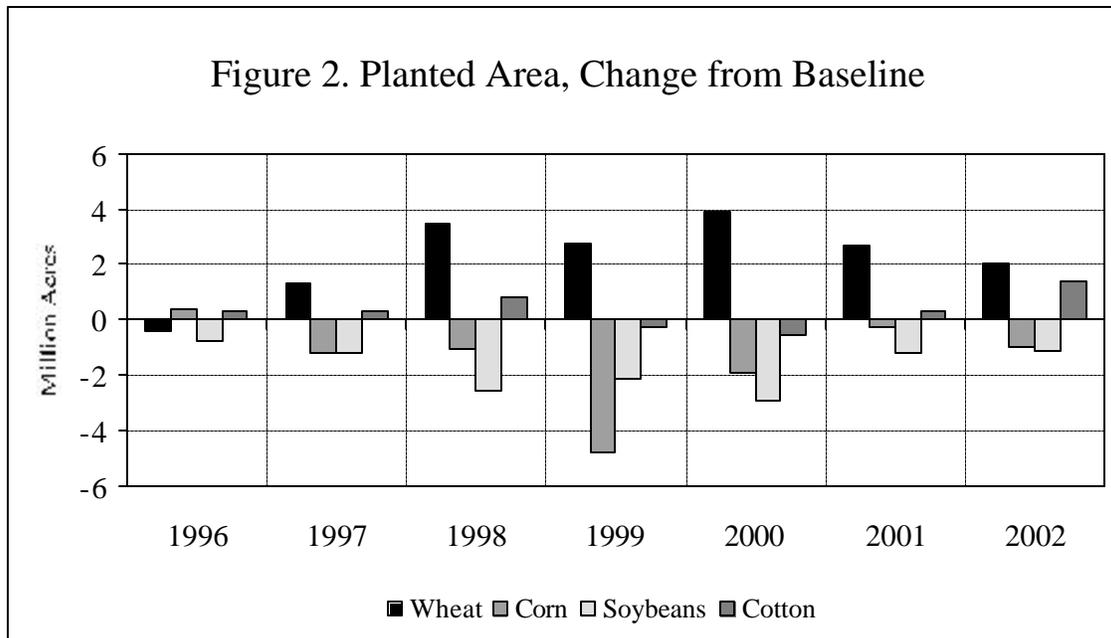
Aggregate plantings of the 8-major crops and hay are only marginally different between the scenario and the baseline. As shown in Figure 1, plantings are almost



identical in 1996 and 1997. In those years, market prices were at or above target prices and no ARP's were required. After 1997, aggregate plantings are slightly higher under the scenario, with the exception of 1999 and 2000 when ARP's were used. For wheat and feed grains, a 5% ARP is assumed for 1999 and continued for feed grains in 2000. In both 1999 and 2000, a 10% ARP is assumed for cotton. As a result, aggregate plantings in 1999 fall by 4.5 million acres from baseline levels. By 2002, no ARP's are assumed

and aggregate plantings under the scenario exceed those of the baseline with target prices exceeding market prices.

While overall plantings are similar, there are shifts among the crops that are worth discussing in more detail. Under the 1990 Act, producers were effectively required to plant the program crop in order to receive deficiency payments and maintain base. These planting restrictions are expected to result in fewer soybean acres than in the baseline. For the 1996-02 period, soybean plantings average 1.7 million acres below baseline levels with the largest decline being 2.9 million acres (Figure 2). Despite the decline, soybean area averages 68.2 million acres under the scenario, still relatively high when compared to pre-1996 levels. Stronger soybean prices under the scenario, coupled with the increase in the NFA rate, help dampen the drop in acreage. Corn is also expected to lose acreage under the scenario, primarily to wheat and cotton. In years with 0% ARP, the decline relative to the baseline is generally less than 1 million acres.



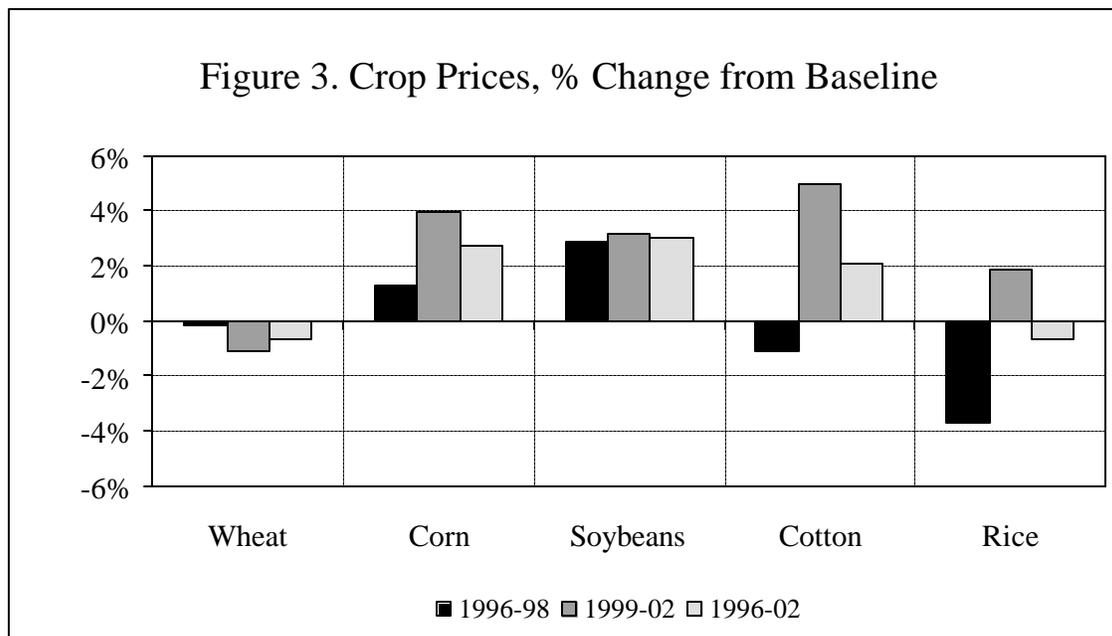
Wheat area increases under the scenario due in large part to the requirement under the 1990 Act that producers had to plant the crop to protect their base and receive deficiency payments. Over the 1996-02 period, wheat plantings average 2.2 million acres above the baseline. Cotton is also expected to gain acreage relative to the baseline as the target price and planting restrictions encourage additional acres. In 1994 and 1995, high cotton prices encouraged producers, particularly in the Southeast United States, to leave the program and plant cotton outside of the program. Under the scenario, those acres would be eligible to become base acres over the 1996-98 period. As a result, cotton base acreage is expected to grow by 1.3 million acres. Higher plantings and weak demand lead to a 10% ARP in both 1999 and 2000.

The role of the 0,50/85 program deserves special mention. While overall plantings are similar under the scenario and the baseline, the reported sum of planted and idled acreage averages 14.4 million acres higher under the '90 Farm Bill scenario. The implication is that acreage idled under the 0,50/85 program under the scenario is

effectively being idled and receiving contract payments under the FAIR Act. Recent data for 1998 and planting intentions for 1999 suggest that acreage in production in 1996 has moved out of production as market prices have softened. The contract payments and flexibility of the FAIR Act effectively give producers a 0/100 option, i.e. plant none of the acres and receive all of the payments.

Crop Prices

As with acreage, the changes in crop prices vary across the different commodities. Figure 3 shows the changes in crop prices relative to the baseline for the periods 1996-1998, 1999-2002, and 1996-2002. Regardless of the time period, corn and soybean prices average above baseline levels due to the reduction in acreage. For corn, the average increase is 2.7% for the 1996-02 period. A portion of the increase can be attributed to the use of set-asides in some years. Lower acreage also results in higher soybean prices under the scenario. The opposite is true for wheat, with prices averaging 0.7% below the baseline. The results on cotton and rice are somewhat mixed, with marginally lower prices early in the analysis period and higher prices in the latter part.

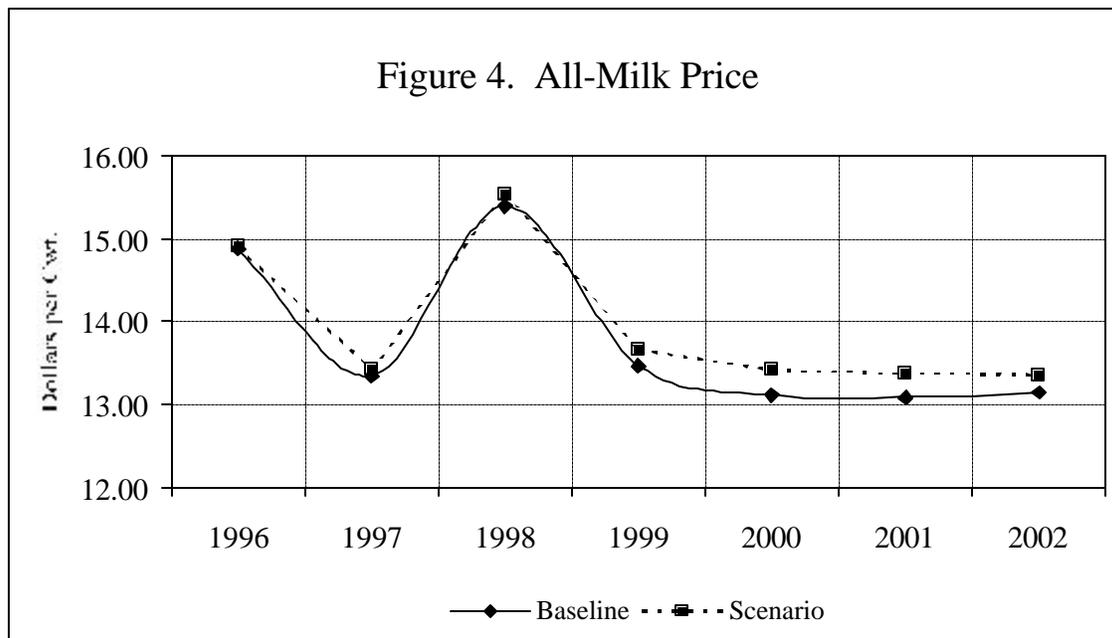


As shown in Figure 3, changes in crop prices under the scenario are fairly modest, ranging between -4% and +4%. The analysis suggests that the policies assumed in the scenario would have done very little to dampen the low crop prices observed in 1998. The combination of set-asides and the FOR did provide some upward pressure in 1999 and 2000; however, much of that was given back in the later years as the FOR stocks moved back onto the market. For the 1996-02 period, the prices-received index for the eight crops and hay averaged just 1.8% higher under the scenario.

Livestock and Dairy

Impacts on the livestock sector are marginal as feed prices show only modest changes. The most noticeable changes occur in pork as the higher corn and soybean meal prices cause production to fall relative to the baseline; however, the changes are less than 1% in any year. The lower production results in marginally higher prices. For example, the Iowa-Southern Minnesota barrow and gilt price averages 1.2% higher over the 1996-02 period in the scenario.

The dairy sector responds to both changes in feed prices and changes to the dairy program under the scenario. Under the scenario, dairy net assessments remain at \$0.10 per hundredweight as opposed to being eliminated under the FAIR Act. The support price program operates as legislated under the 1990 Farm Bill. The 1990 Act provided that if removals of dairy products on a total milk solids basis were not expected to exceed 3.5 billion pounds, the Secretary is authorized to increase the support price at least 25 cents per hundredweight. Under this analysis, the support price is increased each year beginning in 1998. The butter support price remains restricted at 65 cents per pound as legislated under the 1993 Omnibus Budget Reconciliation Act. Consequently, this legislation causes all of the increase in the support price to show up in higher nonfat dry price supports. Milk production slightly declines under the scenario as the increase in assessments and feed costs outweighs the increase in all-milk prices shown in Figure 4.

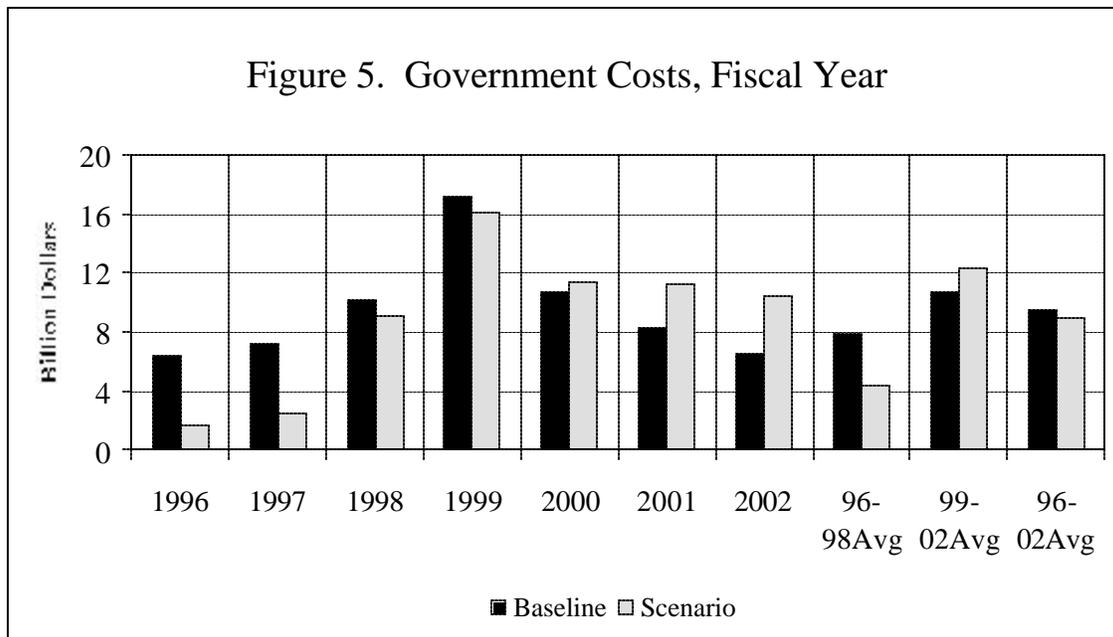


Government Outlays and Farm Income

For fiscal years 1996 through 2002, government outlays average \$8.9 billion under the scenario, compared with \$9.5 billion in the baseline. However, the distribution of the payments across the seven-year period is quite different (Figure 5). The majority of payments under the FAIR Act occur in the early years, while the '90 Farm Bill scenario has increased costs in the later years. Strong market prices in 1996 and 1997

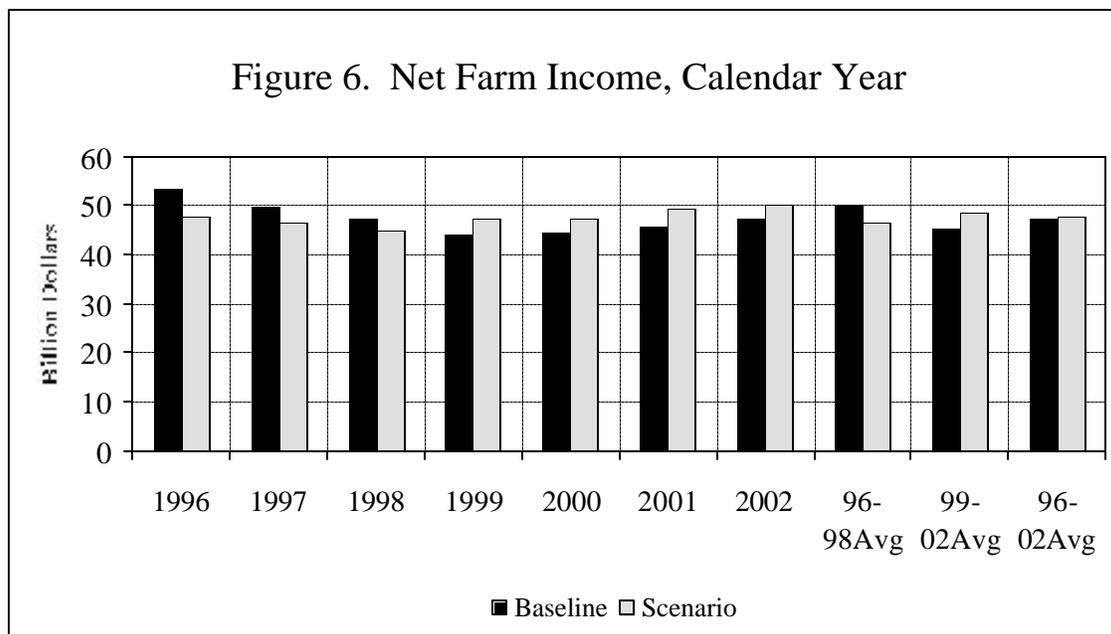
lead to relatively small deficiency payments under the 1990 Farm Bill through fiscal year 1998. With much weaker prices projected under the FAPRI baseline, deficiency payments and thus costs under the scenario rise above the contract payments designated in the FAIR Act.

Although government outlays under the scenario and baseline are similar in total, there are some commodities where the differences are substantial. Outlays for soybeans are negligible under the scenario as lower loan rates and higher prices virtually eliminate loan deficiency payments. The cost of the rice program declines by 39% as deficiency payments decline relative to the contract payments designated in the FAIR Act. However, cotton is an example where outlays increase under the scenario. The majority of the increase is due to higher cotton loan rates leading to increased loan deficiency payments and marketing loan gains. Outlays for wheat and feed grains are relatively close under both programs.



Average net farm income under the baseline and scenario is virtually identical over the calendar years 1996 through 2002, averaging only 0.3% different. As shown in Figure 6, the distribution across years is much different and mirrors the pattern in government outlays. Farm income under the 1990 Farm Bill scenario averages 7.4% below baseline levels for the 1996-98 period, and then exceeds baseline levels by 6.7% for the 1999-02 period. Changes in farm income due to market receipts is relatively small as total receipts change by an average of 0.6% under the scenario.

Figure 6. Net Farm Income, Calendar Year



SUMMARY

The scenario assumes the provisions of the 1990 Farm Bill and subsequent budget reconciliation packages with the exception of an increase in the NFA rate to 23%. For the 1996-02 period, overall acreage and price levels were similar to those observed in the FAPRI baseline, which assumes the provisions of the FAIR Act. Modest price increases in 1999 and 2000 are due to the use of ARP's and the FOR. Over the seven-year period, farm income levels averaged approximately the same, while outlays under the scenario were slightly less than under the baseline.

There have been several major forces at play in commodity markets over the last several months. Increased grain and oilseed production, weakened economic activity in Asia and Russia, the weaker than expected performance of the Euro, and the drop in value of the Brazilian currency have contributed to the sector's downturn. This analysis makes clear that a large part of the decline would have taken place under either policy structure. The 1990 bill would provide additional support in these periods of weak markets when compared to the FAIR Act, but would have reduced income levels during the strong demand years of 1996 and 1997. Further, the 1990 legislation would have pulled grains into government controlled stocks in 1998 and 1999, only to return those stocks to the market and hold down prices in later years. Conversely, the FAIR Act has no provision, other than market forces, to bring supplies in line with demand. Producers in the hog industry recently experienced how severe that signal can sometimes be. The balance between government support and market signals is likely to be at least re-examined on a regular basis.

APPENDIX