Ministry for Primary Industries
Manatū Ahu Matua

WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF

Key results from the Ministry for Primary Industries 2012 sheep and beef monitoring programme

KEY POINTS

- Farmer confidence levels are at their highest in nearly a decade after a good season climatically and economically.
- Net cash income in 2011/12 increased slightly to $339 100 and is expected to again improve slightly in 2012/13 as farmers take advantage of improved productivity and good product prices.
- Farm working expenses rose 24 percent in 2011/12 to $177 300, as a result of rising inputs and farmers using surplus income to increase discretionary expenditure on-farm.
- In 2011/12, farmers spent more on fertiliser, with maintenance applications applied for the first time since 2006/07, and on infrastructure, such as fencing and water supply.
- Farm surplus for reinvestment dropped 64 percent to $29 100 in 2011/12 due to a lower cash operating surplus and increased tax paid. An expected reduction in farm working expenses in 2012/13 will contribute to a 14 percent increase in the cash operating surplus and a doubling of the farm surplus for reinvestment.
- Farmers are focused on production, with increased liveweight per hectare evident as a result of improved climatic conditions.

Table 1: Key parameters, financial results and budget for the Waikato/Bay of Plenty intensive sheep and beef farm model

Year ended 30 June	2008/09	2009/10[1]	2010/11	2011/12 actual	2012/13 budget
Effective area (ha)	300	300	300	300	300
Breeding ewes (head)	933	917	906	914	948
Replacement ewe hoggets (head)	309	287	279	295	300
Other sheep (head)	114	74	74	16	16
Breeding cows (head)	56	56	71	71	71
Rising one-year cattle (head)	177	181	188	168	173
Other cattle (head)	103	105	128	130	135
Opening sheep stock units (ssu)	1 458	1 263	1 064	1 222	1 356
Opening cattle stock units	1 606	1 634	1 868	1 789	1 837
Opening total stock units (su)	3 064	2 897	2 932	3 011	3 192
Stocking rate (stock unit/ha)	10.2	9.7	9.8	10.0	10.6
Ewe lambing (%)	111	124	110	125	130
Average lamb price ($/head)	82.00	70.99	100.00	111.06	99.45
Average store lamb price ($/head)	58.00	62.00	95.00	NA	NA
Average prime lamb price ($/head)	84.00	74.00	101.00	111.06	99.45
Average wool price ($/kg)	2.23	2.24	3.78	3.75	2.96
Total wool produced (kg)	4 032	6 007	5 036	5 980	6 212
Wool production (kg/ssu)	2.8	4.7	4.7	4.9	4.6
Average rising two-year steer ($/head)	1 044	945	1 200	1 150	1 116
Average cull cow ($/head)	1 030	928	1 130	1 087	1 052
Net cash income ($)	285 447	249 578	331 487	339 094	348 808
Farm working expenses ($)	153 659	135 528	142 804	177 251	163 728
Farm profit before tax ($)	66 526	78 799	121 947	132 347	150 615
Farm surplus for reinvestment ($)[2]	4 157	4 312	80 512	29 123	60 695

Notes

1 The sample of farms used to compile this model changed between 2008/09 and 2009/10. Caution is advised if comparing data between these two years.

2 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as farm profit after tax plus depreciation plus stock adjustments less drawings.

Table 2: Waikato/Bay of Plenty intensive sheep and beef model budget

	2011/12			2012/13 budget		
	Whole farm ($)	Per hectare ($)	Per stock unit[1] ($)	Whole farm ($)	Per hectare ($)	Per stock unit[1] ($)
Revenue						
Sheep	122 430	408	100.20	127 310	424	93.91
Wool	22 396	75	18.33	18 360	61	13.54
Cattle	264 312	881	147.74	266 963	890	145.37
Grazing income (including hay and silage sales)	35 412	118	11.76	41 147	137	12.89
Other farm income	6 300	21	2.09	4 200	14	1.32
Less:						
Sheep purchases	3 200	11	2.62	3 400	11	2.51
Cattle purchases	108 555	362	60.68	105 771	353	57.59
Net cash income	**339 095**	**1 130**	**112.63**	**348 808**	**1 163**	**109.27**
Farm working expenses	**177 251**	**591**	**58.87**	**163 728**	**546**	**51.29**
Cash operating surplus	**161 844**	**539**	**53.75**	**185 081**	**617**	**57.98**
Interest	23 228	77	7.71	22 865	76	7.16
Rent and/or leases	9 000	30	2.99	9 000	30	2.82
Stock value adjustment	14 719	49	4.89	9 021	30	2.83
Minus depreciation	11 988	40	3.98	11 621	39	3.64
Farm profit before tax	**132 347**	**441**	**43.96**	**150 615**	**502**	**47.18**
Income equalisation	0	0	0.00	0	0	0.00
Taxation	37 093	124	12.32	29 020	97	9.09
Farm profit after tax	**95 254**	**318**	**31.64**	**121 595**	**405**	**38.09**
Allocation of funds						
Add back depreciation	11 988	40	3.98	11 621	39	3.64
Reverse stock value adjustment	–14 719	–49	–4.89	–9 021	–30	–2.83
Drawings	63 400	211	21.06	63 500	212	19.89
Farm surplus for reinvestment[2]	**29 123**	**97**	**9.67**	**60 695**	**202**	**19.01**
Reinvestment						
Net capital purchases	9 000	30	2.99	5 700	19	1.79
Development	5 700	19	1.89	0	0	0.00
Principal repayments	13 481	45	4.48	14 367	48	4.50
Farm cash surplus/deficit	**942**	**3**	**0.31**	**40 628**	**135**	**12.73**
Other cash sources						
Off-farm income	8 000	27	2.66	10 000	33	3.13
New borrowings	0	0	0.00	0	0	0.00
Introduced funds	0	0	0.00	0	0	0.00
Net cash position	**8 942**	**30**	**2.97**	**50 628**	**169**	**15.86**
Assets and liabilities						
Farm, forest and building (opening)	2 865 900	9 553	951.87	2 863 098	9 544	896.93
Plant and machinery (opening)	76 184	254	25.30	73 756	246	23.11
Stock valuation (opening)	429 784	1 433	142.75	444 503	1 482	139.25
Other produce on hand (opening)	0	0	0.00	0	0	0.00
Total farm assets (opening)	**3 371 868**	**11 240**	**1 119.92**	**3 381 357**	**11 271**	**1 059.29**
Total assets (opening)	**3 667 375**	**12 225**	**1 218.07**	**3 676 864**	**12 256**	**1 151.86**
Total liabilities (opening)	465 246	1 551	154.53	442 950	1 477	138.76
Total equity (farm assets - liabilities)	**2 906 622**	**9 689**	**965.40**	**2 938 407**	**9 795**	**920.52**

Notes

1 Sheep stock units are used in the per stock calculation for sheep and wool income and sheep purchases. Cattle stock units are used for cattle income and purchases. The remainder of the time total stock units are used.

2 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as farm profit after tax plus depreciation plus stock adjustments less drawings.

Table 3: Waikato/Bay of Plenty intensive sheep and beef model expenditure

	2011/12			2012/13 budget		
	Whole farm ($)	Per hectare ($)	Per stock unit ($)	Whole farm ($)	Per hectare ($)	Per stock unit ($)
Farm working expenses						
Permanent wages	0	0	0.00	0	0	0.00
Casual wages	15 900	53	5.28	13 800	46	4.32
ACC	558	2	0.19	428	1	0.13
Total labour expenses	**16 458**	**55**	**5.47**	**14 228**	**47**	**4.46**
Animal health	11 411	38	3.79	12 002	40	3.76
Breeding	723	2	0.24	766	3	0.24
Electricity	4 667	16	1.55	5 139	17	1.61
Feed (hay and silage)	15 525	52	5.16	10 200	34	3.20
Feed (feed crops)	0	0	0.00	0	0	0.00
Feed (grazing)	0	0	0.00	0	0	0.00
Feed (other)	1 500	5	0.50	1 200	4	0.38
Fertiliser	33 365	111	11.08	33 497	112	10.49
Lime	12 920	43	4.29	8 439	28	2.64
Cash crop expenses[1]	0	0	0.00	0	0	0.00
Freight (not elsewhere deducted)	3 071	10	1.02	3 320	11	1.04
Regrassing costs	2 860	10	0.95	2 681	9	0.84
Shearing expenses[2]	9 493	32	7.77	9 815	33	7.24
Weed and pest control	3 300	11	1.10	3 600	12	1.13
Fuel	6 564	22	2.18	7 118	24	2.23
Vehicle costs (excluding fuel)	6 654	22	2.21	7 055	24	2.21
Repairs and maintenance	17 400	58	5.78	13 500	45	4.23
Total other working expenses	**129 452**	**432**	**43.00**	**118 332**	**394**	**37.07**
Communication costs (phone and mail)	1 800	6	0.60	1 800	6	0.56
Accountancy	2 700	9	0.90	2 700	9	0.85
Legal and consultancy	2 100	7	0.70	2 100	7	0.66
Other administration	1 500	5	0.50	1 500	5	0.47
Water charges (irrigation)	0	0	0.00	0	0	0.00
Rates	11 100	37	3.69	11 400	38	3.57
Insurance	3 600	12	1.20	3 600	12	1.13
ACC employer	4 641	15	1.54	4 467	15	1.40
Other expenditure	3 900	13	1.30	3 600	12	1.13
Total overhead expenses	**31 341**	**104**	**10.41**	**31 167**	**104**	**9.76**
Total farm working expenses	**177 251**	**591**	**58.87**	**163 728**	**546**	**51.29**
Calculated ratios						
Economic farm surplus (EFS[3])	99 856	333	33.17	117 667	392	36.86
Farm working expenses/NCI[4]	52%			47%		
EFS/total farm assets	3.0%			3.5%		
EFS less interest and lease/equity	2.3%			2.9%		
Interest+rent+lease/NCI	9.5%			9.1%		
EFS/NCI	29.4%			33.7%		
Wages of management	64 719	216	21.50	64 814	216	20.30

Notes

1 Includes forestry expenses.

2 Shearing expenses per stock unit based on sheep stock units.

3 EFS is calculated as follows: net cash income plus change in livestock values less farm working expenses less depreciation less wages of management (WOM). WOM is calculated as follows: $31 000 allowance for labour input plus 1 percent of opening total farm assets to a maximum of $75 000.

4 Net cash income.

FINANCIAL PERFORMANCE OF THE WAIKATO/ BAY OF PLENTY INTENSIVE SHEEP AND BEEF FARM MODEL IN 2011/12

The cash operating surplus for the Waikato/Bay of Plenty intensive sheep and beef farm model dropped 14 percent in 2011/12 to $161 800, compared with $188 700 in 2010/11. A slight increase in net cash income in 2011/12 was more than offset by a 24 percent increase in farm working expenses.

REVENUE BEING MAINTAINED

Net cash income increased by just 2 percent in 2011/12 to $339 100. Sheep and wool income rose due to improved pricing and higher production, offsetting a decline in cattle income in 2011/12 due to a decrease in stock sold.

Improved lambing, growth rates and product pricing

Net sheep returns (sales less purchases) increased 35 percent in 2011/12 to $119 200 driven by improved lamb prices in both the prime and store markets. More lambs were sold in 2011/12 due to the improved lambing percentage, which was up 15 percentage points to 125 percent as a result of the good autumn tupping conditions in 2011. In the absence of adverse weather events, lamb survival from scanning to weaning was exceptional, with an average of 17 percent lamb losses. Ewe hogget lambing was varied, with an average of 43 percent lambing. Lambs were weaned at slightly heavier weights, having done well on the ewes with the good growing conditions. These conditions continued throughout the season but varied across the region. Bay of Plenty experienced a good growth season, western Waikato had a good early season, while northern King Country had slow growth rates initially.

The average return per lamb increased 11 percent in 2011/12 to $111.06 per head. The average carcass weight of lambs sold lifted from the traditional average of 16.5 kilograms to 17.5 kilograms. With adequate feed from weaning to finishing, farmers held onto lambs for longer to achieve heavier weights. Despite this model focusing on prime lambs, several farmers sold store lambs at good prices for an average $91 per head, with prices better earlier in the season than later. Those farmers with summer crops for lamb finishing had good initial yields but management of crops deteriorated as the season progressed and supplementary feed became less important relative to pasture.

Ewe deaths increased in 2011/12 to 9 percent, up from 6 percent in 2010/11, largely due to the impact of facial eczema in autumn 2011 and associated lambing stress.

Wool returns lift

Wool returns lifted 18 percent in 2011/12. Prices per kilogram held, with the increased return due to a rise in wool production per head of 3 percent to 4.89 kilograms per sheep stock unit. This was due to the favourable growing conditions and adequate feed supply. Some deterioration in wool quality was experienced, with increased yellowness due to wet conditions. Farmers returned to the traditional second shearing as favourable conditions allowed.

Cattle margins positive

Net cattle income (sales less purchases) dropped 16 percent in 2011/12 to $155 800 despite on-farm margins improving. Schedule prices dropped compared with the previous year but were more than compensated by heavier carcass weights of 300 to 310 kilograms, compared with the 290 to 300 kilograms carcass weight traditionally achieved. Farmers held stock for longer to heavier weights, due to available feed supply and lack of ability to source reasonably priced replacements.

Cattle entered winter 2011 at heavier weights, and similar aged cattle will go into winter 2012 heavier again. This equates to 30 to 50 kilograms heavier than long-term averages.

Cattle margins lifted $50 per head for steers and $100 per head for bulls from 2010/11. The margin for steers was $400 to $450 per head, while margins on bulls were $500 to $550 per head.

Dairy grazing improves

Grazing revenue increased 7 percent to $35 400 as a result of grazing prices lifting to $6.00 per head per week for weaners and $8.00 per head per week for rising two-year heifers. Farmers prioritised the grazing of dairy stock (due to fixed contracts), while beef cattle were treated more flexibly, depending on feed supply and price.

TOTAL EXPENDITURE LIFTS AGAIN

Total farm working expenses increased 24 percent in 2011/12 to $177 300 ($58.87 per stock unit). With the improved cash surplus from 2010/11 and good product prices in 2011/12, farmers caught up on expenditure that had been deferred in previous years, with increases across a variety of items.

Lift in expenses due to increased discretionary income

Casual wages increased 32 percent in 2011/12 to $15 900, with farmers catching up on a range of tasks due to the additional cash income. Repairs and maintenance also increased 58 percent in 2011/12 to $17 400, with farmers again using their extra cash for discretionary spending on deferred infrastructure repairs, such as fencing, tracks and water supply.

Animal health costs increased 37 percent in 2011/12 to $11 400 or $3.79 per stock unit. This was largely due to a 4 percent increase in product price, as well as animals being kept on for longer and at heavier weights. In addition, following the facial eczema scare of 2011, many farmers used boluses or provided zinc treatments for their animals.

Good growing season changes spending mix

Fertiliser expenditure decreased 5 percent from 2010/11 to $33 400 or $11.08 per stock unit. The fertiliser spend was kept within budget because less nitrogen was required due to the good growing season. This meant maintenance phosphate fertiliser was put on for the first time since 2006/07. In addition, lime applications increased by 68 tonnes, with a lift in expenditure of 90 percent in 2011/12 to $12 900.

The making of supplementary feed, both hay and silage, increased 37 percent in 2011/12 to $15 500 as a result of the buoyant pasture growth. Those farmers who did not make supplements kept some standing hay to be grazed off late autumn–early winter.

Increases in a range of other costs

There was a 21 percent increase in vehicle and fuel expenditure in 2011/12. This is attributed to the higher cost of servicing vehicles and a slight increase in fuel costs. Increases in insurance were largely seen in 2010/11, with only a 2 percent increase in 2011/12. Local government rates lifted 17 percent in 2011/12 to $11 100.

Administration costs increased 25 percent in 2011/12 to $8100, with increased expenditure across all items. In addition, the Accident Compensation Corporation employer levy increased 63 percent in 2011/12 to $4600, which is partly attributable to the improvement in farm income. Other expenditure increased 125 percent to $3900.

FARMERS REINVEST THEIR DISCRETIONARY EARNINGS

Farm profit before tax increased 9 percent in 2011/12 to $132 300, after allowing for the $14 700 increase in stock on hand. Stock numbers lifted slowly but are not yet back to the levels they were before the 2008 drought. Farmers are focusing more on performance, and liveweight per hectare has increased.

Farm surplus for reinvestment dropped 64 percent to $29 100. With reinvestment spending lifting to $28 200 in 2011/12, from $6500 in 2010/11, and a halving in off-farm

Table 4: Waikato/Bay of Plenty intensive sheep and beef model cash farm income

Year ended 30 June	2008/09 ($)	2009/10 ($)	2010/11 ($)	2011/12 ($)	2012/13 budget ($)
Sheep sales less purchases	73 364	71 957	88 548	119 230	123 910
Cattle sales less purchases	172 065	110 391	185 114	155 757	161 192
Wool	8 978	32 640	19 040	22 396	18 360
Grazing income (including hay and silage sales)	23 940	27 690	33 085	35 412	41 147
Other income	7 100	6 900	5 700	6 300	4 200
Net cash income	285 447	249 577	331 487	339 094	348 808

Note
The sample of farms used to compile this model changed between 2008/09 and 2009/10. Caution is advised if comparing data between these two years.

income, the model's 2011/12 net cash position was $8900, a 90 percent decrease on 2010/11. Tax payments also rose in 2011/12, due to a profitable year in 2010/11.

Farmers have followed on from the good result in 2010/11 and used the positive cash flow to repay debt and undertake overdue maintenance and topdressing. The good pasture growth in 2011/12 resulted in stock being in top order and enabled a lift in sheep numbers, with increased numbers of ewe hogget replacements.

Repaying debt

Some debt was repaid in 2011/12, for the first time since 2006/07. The interest paid in 2011/12 decreased 22 percent to $23 200. This was due to debt being repaid, reduced overdraft levels (with farmers experiencing positive cash flows) and farmers reducing their risk profiles. This resulted in interest rates dropping one percentage point for term loans and 0.3 percentage point for seasonal finance.

Development undertaken

Capital purchases lifted by 38 percent in 2011/12 to $9000 and, for the first time since 2007/08, farmers spent money on development. Both capital purchases and development are still only around half of what was spent before 2008/09.

BUDGET FINANCIAL PERFORMANCE OF THE WAIKATO/BAY OF PLENTY INTENSIVE SHEEP AND BEEF FARM MODEL IN 2012/13

The cash operating surplus for the Waikato/Bay of Plenty intensive sheep and beef farm model in 2012/13 is budgeted to increase 14 percent to $185 100, which is close to 2010/11 figures. This is due to increased numbers of lambs being for sale following an expected lift in the lambing percentage, increased cattle sales and grazing income, and reduced expenditure.

REVENUE STABILISING

Sheep revenue (sales less purchases) is expected to increase 4 percent to $123 900 in 2012/13. Ewes are in good condition, being 4 to 6 kilograms heavier than usual and, with a return to more realistic lamb losses of 20 percent from scanning to weaning, the net result is an expected improvement to 130 percent lambing.

Early scanning results are 5 to 10 percent up on last year's figures mainly as a result of fewer dry ewes. On average, the flocks are younger than they were before the 2008 drought. With extra lambs for sale, the prime lamb market is expected to drop from the 2011/12 season high. Farmers are budgeting for average carcass weights of 17 kilograms and a return of $99 per head. The model is looking at finishing all its own lambs and not purchasing store lambs in 2012/13.

Much of the flock rebuilding has occurred from farmers keeping extra two-tooth and hogget ewes, with many farms at or near their ideal flock numbers.

No confidence in wool prices remaining high

Wool income is expected to decrease 18 percent to $18 400 in 2012/13. This is as a result of a 6 percent reduction in the wool clip and the wool price per kilogram decreasing 40 percent to $2.96.

Gradual increase in cattle income

Net cattle returns (sales less purchases) are budgeted to increase 3.5 percent in 2012/13 to $161 200. Prices per head for cattle are expected to drop 3 percent, compared with 2011/12 prices, despite the heavier carcass weights. This reflects industry expectations at the time of monitoring that schedule prices were likely to decline as a result of exchange rate appreciation. Stakeholders accepted there was also a likelihood that prices could improve.

Trading margins for cattle are expected to return to 2010/11 levels, with margins for steers of $350 to $400 per head and a drop of $50 per head in the margin for bulls to $450 to $500. Sourcing replacements from the dairy industry could remain difficult but this could ease if more rearers enter the market in the spring.

As the margins for cattle improve, farming cattle becomes quite competitive compared with grazing dairy heifers. At this stage, grazing numbers have remained static, but rising costs paired with competitive options available to farmers have prompted a lift of 25 cents per head per week in grazing rates.

MORE CAUTIOUS SPENDING

Farm working expenses are budgeted to decrease 7 percent in 2012/13 to $163 700. This is reflected in an expected drop in casual labour (down 14 percent), feed (hay and silage) (down 34 percent), lime application (down 35 percent) and repairs and maintenance (down 22 percent). Contrary to this, expenses anticipated to lift are animal health (up 5 percent), electricity (up 10 percent), freight (up 8 percent), weed and pest control (up 9 percent), and vehicles and fuel (up 7 percent).

Fertiliser application is expected to remain at maintenance levels. Farmers are expecting stable prices for phosphate, with nitrogen prices being more volatile.

NET PROFIT LIFTS

Farm profit before tax is expected to lift 14 percent in 2012/13 to $150 600. Tax payments are expected to drop 22 percent in 2012/13. After tax and drawings, a farm surplus for reinvestment of $60 700 is budgeted. This is up 108 percent on 2011/12. With reduced capital expenditure and modest off-farm income, a net cash position of $50 600 is expected. Farmers are being cautious, with likely spending focused on debt repayment and deferred capital and maintenance.

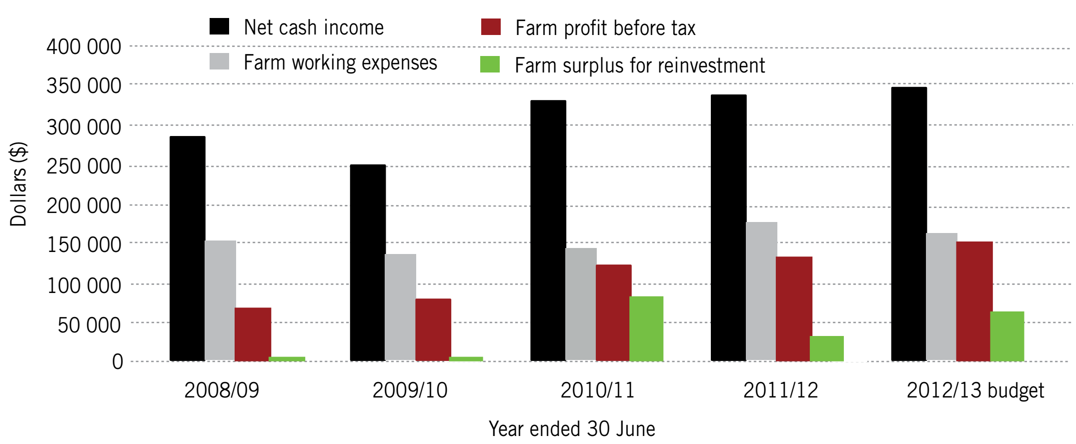
Repaying debt continues

Farmers are expected to continue to repay debt and manage overdrafts, which results in a slight reduction in the amount of interest paid.

Reinvestment returns to conservative levels

It is expected that farmers will return to a more cautious attitude towards reinvestment by putting any development on hold and restricting capital purchases. Drawings are expected to be maintained at $63 500.

Figure 1: Waikato/Bay of Plenty intensive sheep and beef farm model profitability trends



INFORMATION ABOUT THE MODEL

The Waikato/Bay of Plenty sheep and beef farm model represents 733 farms bounding the predominately dairying districts of the region. The farm model is a 300 effective hectare operation representing a typical finishing beef cattle and sheep farm with rolling-to-easy hill contour and volcanic ash soil.

The dominant enterprise on the farm is bull beef finishing, combined with steer finishing and dairy grazers, both weaners and rising two-year heifers. A high performance sheep flock is crossed with a high-fertility breed. Hogget mating is undertaken and reviewed on an annual basis.

Please note that the sample of farms has changed between 2008/09 and 2009/10. Caution should be taken if comparing data between these two years. Farm monitoring models calculate sheep stock units based on lambing performance. One standard sheep stock unit is based on a ewe lambing greater than 111 percent and less than 120 percent. Based on the lambing percentage for this model breeding ewe numbers were multiplied by 1.1 stock units in the 2012/13 year. Any per stock unit calculations or indices should take this into account when comparing to other sources of financial information.

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