

Farm and Ranch Stress Test

Date prepared:

Liquidity

Current ratio = $\frac{\text{Current farm assets}}{\text{Current farm debt}}$

Low Stress

High Stress



Solvency

Debt to asset ratio = $\frac{\text{Total farm debt}}{\text{Total farm assets}}$



Profitability

Net farm income from operations = $\frac{\text{Gross cash farm income} - \text{total cash farm expenses} \pm \text{inventory changes} - \text{depreciation}}{\text{Average farm assets}}$

Negative



Rate of return on farm assets = $\frac{(\text{Net farm income from operations} + \text{farm interest expense} - \text{value of operator's labor \& management})}{\text{Average farm assets}}$

5%

1% or less



Rate of return on farm equity = $\frac{(\text{Net farm income from operations} - \text{value of operator's labor \& management})}{\text{Average farm equity}}$

10%

5% or less



Repayment capacity

Debt coverage ratio = $\frac{(\text{Net farm income from operations} + \text{net nonfarm income} + \text{depreciation} + \text{interest on term debt} - \text{income and social security taxes} - \text{family living expenses})}{(\text{scheduled principal and interest on term debt})}$

135%

110% or less



Efficiency

Operating expense ratio = $\frac{(\text{Gross farm expense} - \text{farm interest expense} - \text{depreciation expense})}{\text{Gross farm revenue}}$

60%

80% or more



Interest expense ratio = $\frac{\text{Interest expense}}{\text{Gross farm revenue}}$

10%

20% or more



Asset turnover ratio = $\frac{\text{Gross farm revenue}}{\text{Average farm assets}}$

40%

20% or more

