

Examining the Survivability and Competitive Readiness of Iowa's Commercial Farm Businesses

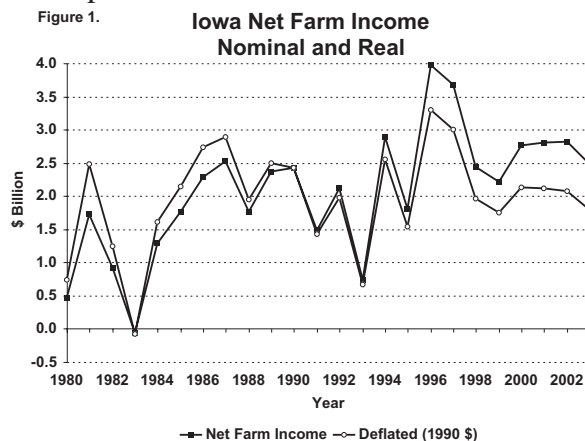
Background

The year 1998 reminded everybody involved in food and fiber production that agriculture has a downside. Prices for all of Iowa's major commodities, except milk, were down sharply from the previous year. As happened in 1994, the pork industry ran headlong into a slaughter capacity constraint, and for a few weeks late in 1998, experienced the lowest prices for its product in decades. The federal government responded by increasing crop-related subsidies through its feed grain apparatus. In addition, an obscure farm program provision, the loan deficiency payment, kicked in and pumped additional money into the checking accounts of some corn and soybean growers.

The federal farm program payments, estimated to be around \$1.2 billion for Iowa farmers in 1998, took the edge off the potential drop in farm income. But increased subsidies did little to ease farmers' concerns about their ability to compete in a market with basic commodities at prices averaging below those received over the past decade or so.

For the agricultural sector in Iowa, 1998 net farm income is estimated to be down 30 percent from a year earlier. For individual producers, particularly those with narrow profit margins, the percentage decline in net farm income can be much greater – 100 to 200 percent would not be unusual. In fairness, however, 1996 and 1997 were extremely high income years. Consequently part of the shock induced by 1998 is

simply the result of the contrast with the preceding two years. In fact, the aggregate farm income measure for Iowa was down only slightly from the previous five-year average. As shown in Figure 1, however, sectoral-level farm income has followed a boom-and-bust pattern with downturns lasting only a year or two before a sharp recovery. The concern many Iowa farmers and farm leaders are now expressing is that economic conditions over the next few years may limit the likelihood that a sharp recovery will rescue struggling operations. The forecasts, shown in Figure 1 suggest that several years of slowly increasing nominal income seem likely. However, forecasts, at best, give us information on fundamental trends. Reality usually gives us a much bumpier ride than the one we predict.



The short-term decline in prices can largely be attributed to basic supply and demand fundamentals. Global agricultural production capacity for both crops and livestock has outstripped demand growth. Economic problems in Asia

and Russia have significantly worsened the short-term price problem. And, as experienced in the pork industry, rapid expansion combined with a reduction in slaughter capacity resulted in sharply increased processing and retailing margins. In the near term, farmers have relatively few managerial options. Business reorganization and meaningful unit cost reduction take time. Consequently, the impact of reduced commodity prices for many farm businesses will be a reduction in liquid assets or an increase in debt loads. For these operations, loss management and financial restructuring will be the primary managerial task. And the skill with which short term finances are managed will have a significant impact on farmers' viability and competitive capacity.

Against the backdrop of these more immediate supply and demand problems, Iowa farmers also face some significant longer-term challenges. The first stems from increased consolidation and coordination throughout the agricultural sector. The changes underway in the pork sector offer one of the clearest examples of this trend. Very large scale pork production businesses with coordinated breeding, gestation, finishing, nutrition, logistics, and in some cases, processing and retailing functions are a competitive threat to fragmented small scale producers whose economic activity is only coordinated through markets.

The same forces have already altered the poultry and cattle feeding industry. New technology and business relationships will transform the grain sector as well. In the near future Iowa's agricultural sector will likely be characterized by a limited number of competing supply chains. For farmers this change will require choosing among supply chains or remaining unaligned and competing independently.

The second challenge comes from changes in farm and trade policy. The ongoing efforts to privatize agriculture's safety net and increase the efficacy of market forces are essentially

untested. Many of the changes as reflected in the 1996 Farm Bill seem reasonable given the global nature of agriculture and commitments to limit government spending. But the hard reality is that no one knows if or how these changes will impact agriculture.

Consequently, Iowa farmers face two difficult and interrelated management problems: to survive a period of low prices – one of uncertain intensity and duration and at the same time to make strategic decisions on whether and how to compete in a world of giants with increasing risk and uncertainty. This report examines one aspect of Iowa farmers' competitive readiness – their financial strength to survive the current economic downturn and their financial capacity to restructure and reposition their farm businesses. Other significant factors such as their managerial or organizational readiness cannot be assessed. Consequently, the picture that emerges from this analysis is incomplete.

Approach

The financial condition and capacity of farm businesses can only be meaningfully assessed with farm-level data. The financial data used in this analysis are obtained from the members of the Iowa Farm Business Association (IFBA). The data set includes complete financial information from nearly 1,200 operations. The reliability of the financial data is very good, since the data are derived from summaries of formal accounting systems. Further, farms included in the IFBA data are reasonably representative of Iowa's mainstream commercial farm businesses.

Income projections are made from actual 1997 incomes by proportionately changing those revenue and cost items that are impacted by changes in commodity price and yield levels. Price and yield assumptions used in this analysis are presented in Table 1. The financial status of farms in this data set are examined from three perspectives based on:

Table 1. Iowa Price and Yield Assumptions (Calendar year basis)

	1997 ¹	1998 ¹	1998-2000 ²
Corn			
Price (\$/bu.)	2.52	2.08	2.15
Yield (bu./a.)	138	145	138
Transition payment (\$/bu.)	0.46	.55 ²	0.35
Loan deficiency payment (\$/bu.)	0.00	0.5 ²	0.00
Soybeans			
Price (\$/bu.)	7.32	5.84	5.50
Yield (bu./ac.)	46.0	48.0	46.0
Loan deficiency payment (\$/bu.)	0.0	0.20 ²	0.00
Market Hogs			
Price (\$/cwt.)	54.18	34.17	36.00
Market Steers			
Price (\$/cwt.)	64.92	59.85	63.00
Milk			
Price (\$/cwt.)	13.20	14.80	13.20

¹ Actual, Iowa average

² Author's projection

1. Actual 1997 incomes
2. A baseline reflecting projected average prices and yields over the 1998-2000 period
3. Estimated 1998 income using actual 1998 price, yield and farm program information

In this analysis, farms are classified into one of four financial groups based on their capacity to generate cash flow and their net worth. Note that the financial classification attempts to reflect near term (one to three years) status of the business if income conditions continue at the assumed levels. The financial categories are defined as follows:

1. **Strong.** Farms in this group show adequate to excellent liquidity and acceptable solvency. Expansion may be feasible.
2. **Stable.** Farms in this group will not likely fail. However they may experience moderate cash flow problems or capital replacement

may be less than levels required to remain in business long term.

3. **Weak.** Farms in this group can survive if operating changes and asset or debt restructuring occur. Farms are vulnerable to income losses or asset value declines. Note this group contains farms with large losses and high equity as well as those with positive earnings and low equity.
4. **Severe.** Survival of farms in this group is unlikely.

Actual 1997 Financial Conditions

Figure 2 gives information on the distribution of farm operations and their liabilities across the four financial categories. Figure 3 gives estimates of 1997 income, cash flow, and government payments. Table 2 summarizes selected descriptive information for farms in each financial group.

Figure 2. Percentage Distributions, Operators & Liabilities by 1997 Financial Status

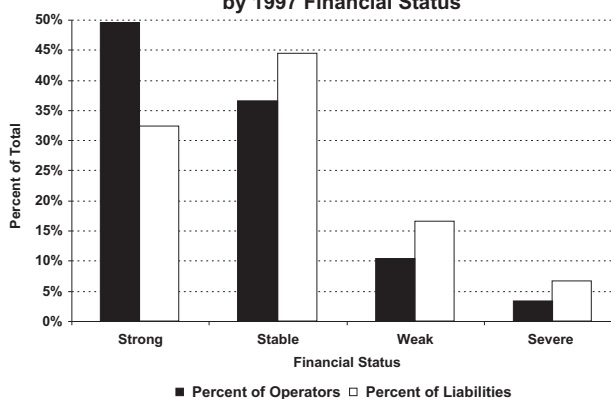


Figure 3. Income Measures for 1997 by 1997 Financial Status

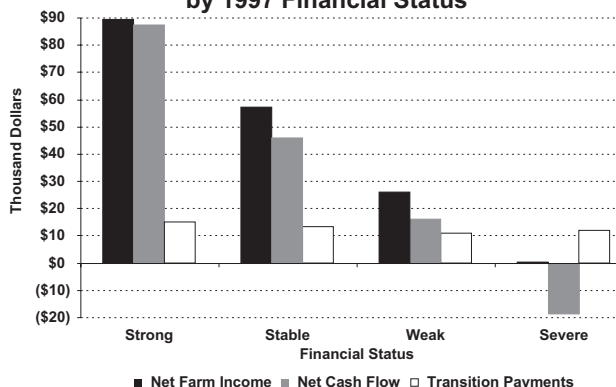


Table 2. 1997 Descriptive Information by 1997 Financial Status

	Financial Status			
	Strong	Stable	Weak	Severe
Farm Size				
Total acres operated	620	604	520	475
Row crop acres	561	469	393	332
Labor months	17.4	16.3	16.3	15.3
Assets (\$1,000)	784.6	769.6	517.1	442.0
Sources of Farm Income (%)				
Crops	60	55	52	45
Livestock	31	36	38	44
Other	9	9	9	10
Farm Types (%)				
Cash grain	36.9	32.5	26.1	20.0
Grain-livestock	30.8	26.3	30.3	27.5
Hog	22.7	25.8	26.1	25.0
Beef	5.1	8.5	9.2	20.0
Dairy	1.2	2.1	1.7	0.0
Mixed	3.3	4.7	6.7	7.5
Operator Age				
	46.9	49.7	44.1	44.4

Under 1997 income conditions:

- Most farm businesses were in strong (49.6 percent) or stable (36.6 percent) condition.
- Only 3.5 percent were in severe financial condition and 10.3 percent in weak condition.
- Financially stressed (weak and severe) farm businesses held 23.1 percent of liabilities in the data set.
- Businesses in strong financial condition earned more than \$89,000 in farm income plus an additional \$12,000 from off-farm sources.
- Strong farm businesses received more than \$15,000 in government payments.
- Farms classified as severe only break-even in terms of farm income. However, their net cash flow shortfall was more than -\$18,000.
- Farms in strong and stable condition were larger than those classified as weak or severe.

- Strong and stable farms showed more dependence on cash grain enterprises.
- Weak and severe businesses were operated by younger managers.
- Operator age was greatest for stable farms.

In general, the financial picture that emerges from the 1997 data is a rather strong one. Most farms are financially sound, earning acceptable incomes with excellent risk-bearing ability. Relatively few farms are financially stressed. Even these groups, on average show positive net worth and would have some restructuring options available to them.

Farm Financial Conditions with Lower Prices

The estimated financial scores presented in the previous section were based on 1997 income conditions. Suppose, however, that lower commodity price conditions would persist over the next one to three years? To examine this situation, farm businesses in the data set are reclassified using their actual 1998 balance sheets and projected income based on the assumed 1998-2000 averages presented in Table 1.

Figure 4 summarizes the operator and debt distributions across the financial groups. Figures 5 and 6 give information on selected income, cash flow, and net worth measures. Table 3 summarizes selected demographic information for farms in each of the financial groups.

Figure 4. Percentage Distributions, Operators & Liabilities by 1998-2000 Financial Status

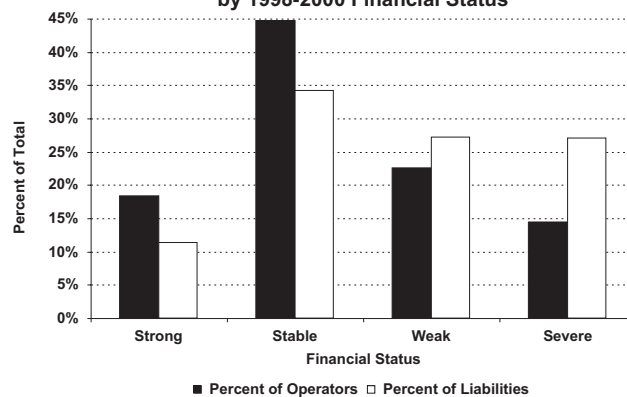


Figure 5. **Projected Income Measures, 1998-2000 Conditions by 1998-2000 Financial Status**

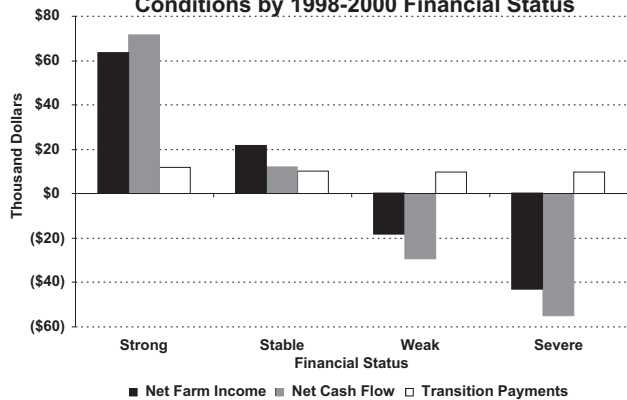


Figure 6. **1998 Net Worth and Projected 1998-2000 Cash Flow by 1998-2000 Financial Status**

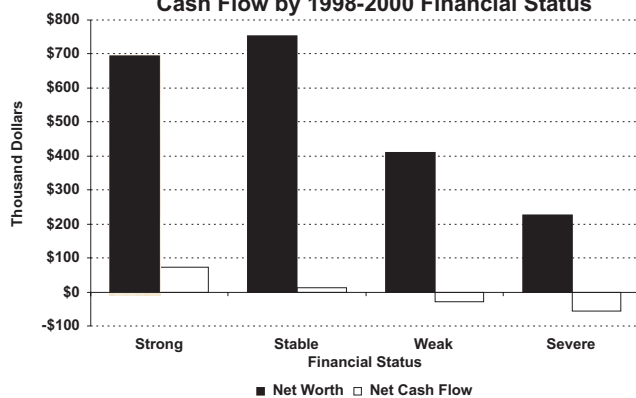


Table 3. 1998 Descriptive Information by 1998 Financial Status

	Financial Status			
	Strong	Stable	Weak	Severe
Farm Size				
Total acres operated	615	624	550	577
Row crop acres	510	550	416	471
Labor months	16.5	16.5	17.3	17.4
Assets (\$1000)	817.7	908.2	654.3	607.8
Sources of Farm Income (%)				
Crops	66	59	50	47
Livestock	23	31	42	45
Other	12	9	9	8
Farm Types (%)				
Cash grain	49.3	34.6	26.1	22.3
Grain-livestock	28.0	31.3	28.4	24.1
Hog	7.1	19.8	33.7	45.2
Beef	10.0	7.8	6.9	3.0
Dairy	2.8	1.6	0.8	1.2
Mixed	2.8	5.0	4.2	4.2
Operator Age				
	45.2	50.8	46.2	42.8

- Strong operations decline from nearly 50 percent of the data set under 1997 conditions to 18 percent. They tend to be well-capitalized cash grain operations and are clearly well-positioned for the assumed economic conditions. Off-farm income is above the average for the other groups. Most of the traditional financial measures indicate excellent efficiency and liquidity. Only 11 percent of outstanding liabilities are held by this group.
- Stable operations are the dominant group in the data set at nearly 45 percent – an increase from 1997 results. They have the highest net worth but exhibit limited liquidity. Farms in this group are survivable in the near term. However, they are not likely to be profitable should poor economic conditions continue. They hold about a third of all debt.
- Financially stressed operations, those in weak and severe financial condition, comprise 37 percent of the data set and control more than 54 percent of outstanding debt.
- The severe group has, on average, more equity than the severe group in 1997. This implies more restructuring flexibility. Note this reflects the fact that the number of farms classified in this group has increased significantly as the assumed price levels declined.
- Financially stressed farms were smaller in terms of assets and total sales than strong and stable operations.
- Farms in severe financial condition are operated by younger farmers.
- Financially stressed farms are more reliant on livestock earnings than cash grain.

Figures 7 and 8 present financial information for pork producers in the data set for the 1998-2000 period. In this case, a pork producer is defined as any farm reporting pork sales. The projected financial condition for pork producers is significantly worse than the data set average.

Figure 7. Percentage Distributions, Operators & Liabilities by 1998-2000 Financial Status for Swine Farms

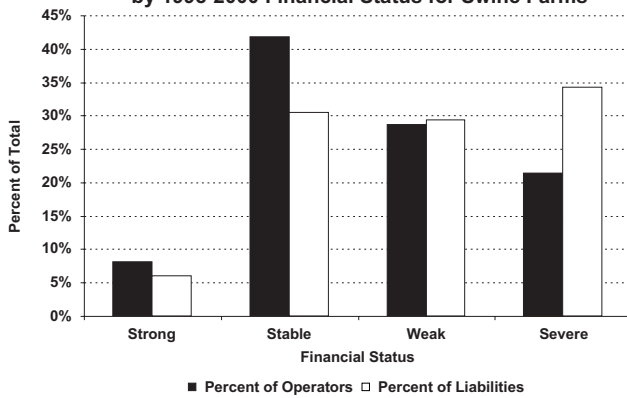
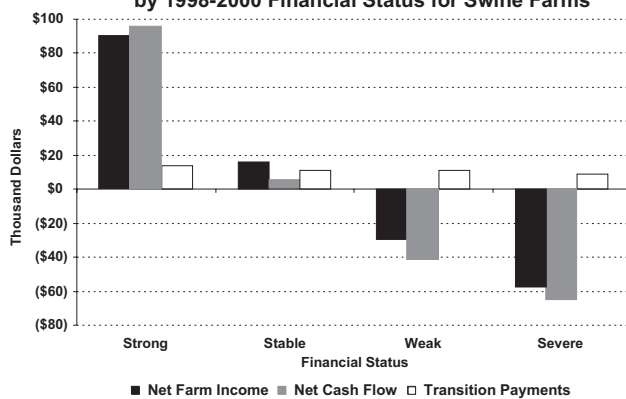


Figure 8. Projected Income Measures, 1998-2000 Conditions by 1998-2000 Financial Status for Swine Farms



- More than half of the operations are classified in weak or severe financial condition.
- For pork producers in severe condition, annual equity loss from earnings is approximately 25 percent or \$65,000.
- Only 8 percent of swine farmers in the data set are classified as strong. The majority of these operations sell fewer than 1,000 head per year. They are essentially cash grain farms with a small pork enterprise.
- Swine farms marketing more than 2,000 head per year tend to be concentrated in the weak and severe groups.

Management and Policy Implications

This analysis explores, in a preliminary way, the capacity of Iowa farm businesses to survive an extended period of lower prices. In a sense this

is an attempt to determine the size and composition of the at-risk farm population. In addition, however, we also wanted to gain some insight into the financial capacity of farm businesses to restructure and reposition themselves for a marketplace that will offer increasing competition as well as volatility.

If, as seems likely, commodity prices will remain low over the next few years, a significant segment of Iowa's family-operated commercial farm businesses are potentially at risk. Our estimates put this number at over a third – 37 percent. The primary managerial challenge these businesses face is survival. They must manage accumulated losses and financially restructure if they are to continue. For some, restructuring simply means refinancing and stretching out loan repayment terms. For others, restructuring will require changes in enterprises, partial liquidation of assets, and possible debt forgiveness. And for others, restructuring will not be feasible and they will go out of business.

This at-risk population, as we have said, is younger and more likely to be involved in livestock production. They hold more than half the outstanding liabilities in the data set. This concentration of debt in the hands of financially-stressed farm businesses poses a potential threat to lenders as well as the functioning of asset markets.

About 20 percent of the farm businesses represented by this data set are in strong position. Even with lower prices and diminished government subsidies, these operations remain profitable with sufficient liquidity to support expansion. Strong farm businesses tend to be concentrated in cash grain production. Some may have a smaller livestock enterprise in addition to cash grain. Strong operations have significantly more off-farm income than average. The average operator age is 45 years – a managerial time horizon of 10 to 20 years. Clearly these businesses are survivable in the short run. And, financially at least, they appear to be well positioned for the future.

The remaining farm businesses in the data set – nearly half, remain in stable condition. Stable farms have significant equity – close to \$800,000 on average. But their projected return to equity under 1998-2000 conditions is close to zero. Further, they have extremely limited liquidity from operations. Stable farm businesses can ride out a period of low prices without being placed in jeopardy. However, they are clearly not well-positioned to compete. Although they possess the financial strength to redirect their businesses, any new venture or expansion must be able to generate immediate cash. They simply don't have the luxury of sinking funds into a slowly developing investment.

Finally, note that stable farms are operated, on average, by the oldest producers. For these operations, repositioning must be undertaken within the context of succession planning and retirement. Repositioning requires an adequate managerial time horizon. Consequently stable businesses with older operators must seek out joint ventures, alliances, or multigeneration business arrangements that extend the life of the firm.

For farm leaders and public officials, the re-emergence of farm stress poses a number of policy dilemmas.

- Financial conditions are highly variable across farm businesses. Consequently a single policy solution is unlikely to prove successful. Further, the dispersion in financial status among farmers will make it difficult to form a political consensus on the need for or direction of public intervention.
- The objectives of public policy during a financial downturn can become a little murky. Elected officials often speak in terms of “keeping people on the land,” “saving the family farm,” or “protecting the independent operator.” This usually implies increased levels of subsidization for everyone. Unfortunately, traditional output-based subsidies may do little to facilitate short-term finan-

cial restructuring, ease the departure of failing businesses, or reposition those operations with the likely potential to succeed in the agricultural sector of the future.

- On the other hand, policies that offer incentives and resources to manage the financial consequences of loss are often rejected by those who would most benefit from them. For many farmers faced with an unexpected and sizable loss, a check in the mailbox is likely to be much more appealing than programs offering loan guarantees, interest rate subsidies, or financial intermediation and counseling. Moreover, targeted financial restructuring policies are often opposed by ineligible farmers because the policies are seen as aiding “bad managers.” Although targeting assistance to farm businesses in need makes sense from an efficiency perspective, the result, in many cases, is a general lack of support throughout the farm community. If fragmentation is sufficient, no policy response is forthcoming.
- Lending institutions serving agriculture are well capitalized and have been quite profitable over the past decade. Moreover, many financially stressed farm businesses, at the moment, have sufficient resources to allow restructuring. Unfortunately, when lenders and borrowers have the resources to manage loss and restructure affected businesses, the most common managerial response is to delay action.
- Long-term efforts to increase efficiency through research, market development, or improved market access are likely to be beneficial. However, they hold little promise for resolving near-term financial stress.
- Much of the current policy debate centers around improved risk management instruments, institutions, and markets. These efforts to privatize and extend agriculture's safety net are extremely important. However, risk management and insurance

schemes cannot, in themselves, resolve financial problems resulting from long-term price declines. Under these conditions, restructuring and repositioning the business to increase revenues, reduce unit production costs, or capture margins is the only meaningful way to resolve financial stress. Risk management can play an important supporting role in this process – but it's not the main event.

- The Freedom-to-Farm Act needs to be carefully assessed both in terms of its objectives and design. More attention needs to be paid to the adequacy of this legislation to deal with price volatility, efficiency, food security, and the cost of increased risk-bearing. Moreover the concept of transition implicit in the bill needs to be broadened to include not just transition from subsidies to the market, but also transition for some producers out of agriculture and for others transition to a highly coordinated and competitive industry.
- Finally, in Iowa, where agriculture figures significantly into the state's economy, it is

not really feasible to offer generous income transfers to financially troubled farmers. The budget consequences quickly become unmanageable. However, one way the state can respond meaningfully is to offer support to individuals affected by financial stress. Financial counseling, mediation, job placement, and mental health programs offer some of the most appropriate and cost effective options that the state budget can support. Although programs of this sort may lack political resonance, they need to be carefully considered by elected official and agricultural leaders.

Very few of us can see around corners. Certainly economists are blessed with no more prescience than anyone else. What looks like a period of extreme price pressure for grain and livestock might quickly turn around – or suddenly get worse. We can say, however, that farm financial stress is very real. This problem warrants a careful and serious response from farmers and farm leaders. The long-term viability of Iowa agriculture depends on their solid and informed long-term decisions.

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Prepared by Robert W. Jolly, professor, and Alan Vontalge, extension program specialist, Department of Economics, Iowa State University, Ames, Iowa.

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