

## Economics 426W

### Final Exam

Greg Dow

December 15, 2021

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. Supporters of LMFs sometimes say, "If democracy is good for managing governments, it should also be good for managing firms." What are the strongest arguments favoring this viewpoint? What are the strongest arguments against it? Overall, which arguments seem more persuasive? Why?
- 1B. Critics of LMFs sometimes say, "If LMFs were economically efficient, they would be a common type of firm." What are the strongest arguments favoring this viewpoint? What are the strongest arguments against it? Overall, which arguments seem more persuasive? Why?

Answer ONE of the following two questions. Do not answer both.

- 2A. Most people regard the plywood coops, the Mondragon coops, and the Lega coops as successful LMFs. Choose two of these cases and discuss (i) the factors that account for their success, (ii) why it has been difficult for other LMFs to replicate their success, and (iii) the main lessons LMF supporters should learn from these examples.
- 2B. Employee stock ownership plans (ESOPs) are common in the U.S. and codetermination is common in Western Europe. For each case, discuss (i) how the system works, (ii) the primary similarities and differences with the theoretical concept of an LMF, and (iii) the main lessons LMF supporters should learn from these examples.

Answer ONE of the following two questions. Do not answer both.

- 3A. Economists often say firms allocate resources through authority rather than bargaining. What are the advantages of authority over bargaining? What are some of the potential problems with the use of authority? How could problems with authority be avoided or minimized? Explain.
- 3B. Economists usually assume that firms maximize profit, but there have been debates about what LMFs maximize. Describe some evidence that LMFs do not maximize profit. Then describe the Illyrian model and discuss whether the evidence favors this alternative idea. What, if anything, do you believe LMFs maximize? Explain.

Answer ONE of the following two questions. Do not answer both.

- 4A. In a lecture, I defined total factor productivity. Discuss the advantages of TFP compared to other ways of measuring productivity, the key theoretical assumptions and conclusions from my lecture about TFP, and how one could test the hypothesis that LMFs have higher (or lower) TFP than KMFs operating in the same industry.
- 4B. In a lecture, I described a model where an entrepreneur does not create an LMF even if it would be more productive than a KMF, because workers don't know the true value of the entrepreneur's project. Describe the main assumptions and conclusions of this model and then explain how it fits into the overall framework of the course.

Answer ONE of the following two questions. Do not answer both.

- 5A. Consider the following suggestions people have made about why LMFs are rare: (i) they have problems with work incentives; (ii) they have problems getting capital; (iii) they are not attractive to risk averse workers; (iv) they have difficulties making collective choices. Rank these explanations in order of their importance and justify your answers.
- 5B. Consider the following suggestions people have made about why LMFs are rare: (i) they have low birth rates relative to KMFs; (ii) they have high death rates relative to KMFs; (iii) KMFs are seldom converted into LMFs; (iv) LMFs are often converted into KMFs. Rank these explanations in order of their importance and justify your answers.

Answer ONE of the following two questions. Do not answer both.

- 6A. In Chapter 11, Dow identifies three main factors that could cause LMFs to be rarer than KMFs: differences in credible commitment, differences in composition of control groups, and differences in the commodification of control positions. Explain how each of these differences is related to the fact that capital is alienable while labor is inalienable.
- 6B. In Chapter 12, Dow outlines a process for transforming KMFs into LMFs. Does Dow's proposal address any market failures? If so, what are they? Assuming the proposal is adopted, what would be the most important obstacles to employee buyouts? For what types of firms would an employee buyout be most likely to occur? Explain.

BONUS QUESTION (worth 5% of exam grade; no more than 2-3 sentences required):

What is the most important thing you learned in this course? Why?

## Economics 426W

### Final Exam

Greg Dow

April 28, 2021

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. Your friend says, "When productive assets are privately owned, the asset owners have the legal right to decide how they are used. Therefore, it is obvious that capital suppliers will have control rights in firms." Give a detailed response to this statement.
- 1B. Your friend says, "In an economy with free markets, anyone can create any kind of firm they want. If people choose not to create labor-managed firms, it must be because these firms are not socially desirable." Give a detailed response to this statement.

Answer ONE of the following two questions. Do not answer both.

- 2A. The plywood, Mondragon, and Lega cooperatives competed successfully against KMFs for many decades. Why were these three cases exceptions to the general rule that LMFs are rare? Does their success provide evidence for or against any specific theories about why LMFs are rare? Explain carefully.
- 2B. The government of Denmark wants to encourage more employee participation in firms in order to raise the productivity of the Danish economy. Two general approaches are being considered: employee stock ownership plans similar to the ESOPs in the US; and worker cooperatives similar to those in Spain and Italy. In either case, assume the government is willing to spend a substantial amount of money to subsidize such firms. Explain which approach you would recommend (it must be one or the other), and justify your answer.

Answer ONE of the following two questions. Do not answer both.

- 3A. Chapter 5 discussed whether firms can be bought and sold. Dow argued that according to his definition of a firm, this is impossible. But other people use a different definition of a firm where this is possible. Carefully explain the two definitions and say why they would lead to different conclusions on this issue.
- 3B. Chapter 6 discussed six possible approaches to thinking about LMFs: transaction costs, optimal contracting, adverse selection, repeated games, history, and culture. Dow said that these theoretical frameworks can be ranked from those that rely most on efficiency ideas to those that rely least on efficiency ideas. Carefully explain his reasoning.

Answer ONE of the following two questions. Do not answer both.

- 4A. Professor W says that LMFs are rare because they have poor work incentives. Professor X says that LMFs could replicate any incentive system used by KMFs, so Professor W's argument does not explain why LMFs are less common than KMFs. Carefully discuss each argument. Then state and justify your own opinion.
- 4B. Professor Y says that LMFs are rare because labor suppliers could use control rights to abuse investors. Professor Z says that capital suppliers in KMFs can use control rights to abuse workers, so Professor Y's argument does not explain why LMFs are less common than KMFs. Carefully discuss each argument. Then state and justify your own opinion.

Answer ONE of the following two questions. Do not answer both.

- 5A. In my lecture notes on chapter 7 (March 9) I used some math to compare three cases: (a) profit maximization; (b) the Illyrian firm; and (c) a labor-managed firm with a perfectly competitive membership market. Give a clear verbal description of the key assumptions, the economic reasoning, and the key conclusions for each of these three cases. What are the most important lessons about LMFs we obtain from this series of models? Explain.
- 5B. In my lecture notes on chapter 10 (the bonus lecture for March 30) I developed a model involving adverse selection where entrepreneurs might create KMFs even though LMFs have higher productivity. Provide a clear verbal description of the key assumptions, the economic reasoning, and the key conclusions of the model. Do you think this story is an important part of the explanation for why LMFs are rare in the real world? Explain.

Answer ONE of the following two questions. Do not answer both.

- 6A. Chapter 11 presented a theory about LMFs based on the premise that capital is alienable while labor is inalienable. What do you think is the most important area where additional theoretical work is needed in order to clarify this theory? What do you think is the most important area where additional empirical research is needed in order to test the theory? Give detailed justifications for your answers.
- 6B. Chapter 12 constructed a policy proposal to convert KMFs into LMFs. A critic of this proposal argues that it would take too long for employees to buy equity shares through payroll deductions, and that very few KMFs would actually be transformed into LMFs. The critic argues that the government should pass a law transferring control rights from capital suppliers to labor suppliers in all firms without requiring workers to compensate investors. Discuss the strengths and weaknesses of this alternative proposal.

**Economics 426W**

**Final Exam**

Greg Dow December 7, 2019

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. Chapter 2 described moral or philosophical arguments in favor of LMFs. Describe three of these arguments. In each case, explain the strengths and weaknesses of the argument. How would you rank the three arguments in order of how convincing they are? Why?
- 1B. Your friend says, "Economics is not very important in explaining why LMFs are rare. The key factors are history, politics, and culture." Respond to your friend by discussing how economics could be useful in explaining the rarity of LMFs. Then discuss the role of history, politics, and culture. How important are these factors? Justify your answer.

Answer ONE of the following two questions. Do not answer both.

- 2A. Most people believe that Mondragon and the Lega are successful. Briefly describe how each system developed historically. Then discuss why an individual worker cooperative might benefit from being grouped into a large federation with many other cooperatives. Given these benefits, why do you think there are relatively few federations of this kind?
- 2B. Employee stock ownership plans and codetermination are two common ways of giving employees some financial or decision-making participation. For each of these systems, describe how it works and what potential benefits it could have. Do these two systems teach us anything about how LMFs should or should not be designed? Explain.

Answer ONE of the following two questions. Do not answer both.

- 3A. Chapter 5 discussed the theory of the firm. How do economists normally define what a firm is? Why would it sometimes make sense to use firms instead of market exchange? What is a control group? What is a residual claimant? Explain why these two concepts are important for the book as a whole.
- 3B. Chapter 6 discussed the replication principle. Define this principle and explain why it is important for the book as a whole. Then give examples of (i) an economic problem that is more easily solved by a KMF than an LMF; and (ii) an economic problem that is more easily solved by an LMF than a KMF. Carefully justify your answer in each case.

Answer ONE of the following two questions. Do not answer both.

Note: Try to use some math in your answer and describe the economic logic behind the math.

- 4A. Some people think LMFs maximize net income per worker, some think they maximize profit, and some think they do neither. Explain why maximizing net income per worker leads to unusual firm behavior. Then explain why perfect membership markets lead to profit maximization. Finally, discuss whether empirical evidence tends to support the maximization of net income per worker, profit maximization, or neither of these.
- 4B. Consider an industry with both KMFs and LMFs. Suppose you want to know whether there is a significant difference in productivity between the two. Define what you mean by productivity. Now suppose you can have any data you want. Describe a statistical method that could be used to determine whether either type of firm has a productivity advantage. Be explicit about any important assumptions you need to make.

Answer ONE of the following two questions. Do not answer both.

- 5A. Consider the following four ideas about why LMFs are rare: (i) they provide poor work incentives; (ii) they have trouble getting capital; (iii) they require risk averse workers to be undiversified; and (iv) they suffer from collective choice problems. Rank these ideas in order from most important to least important. Then provide a detailed justification for your answer, using both theoretical reasoning and empirical evidence.
- 5B. The total population of LMFs could be small for any of the following reasons: (i) LMFs have a low birth rate; (ii) KMFs are seldom converted into LMFs; (iii) LMFs are often converted into KMFs; or (iv) LMFs have a high death rate. Rank these ideas in order from most important to least important. Then provide a detailed justification for your answer, using both theoretical reasoning and empirical evidence.

Answer ONE of the following two questions. Do not answer both.

- 6A. In chapter 11, Dow makes two arguments: (i) the capital suppliers in KMFs have trouble making credible commitments to labor suppliers; and (ii) labor suppliers in LMFs have trouble making credible commitments to capital suppliers. Explain Dow's arguments in each case. Then evaluate Dow's claim that problem (ii) is usually more serious than (i). Is he right? If so, how important is this factor as an explanation for the rarity of LMFs?
- 6B. In chapter 12, Dow designs a process for converting KMFs into LMFs. There are two kinds of errors that could occur. A type 1 error is to convert a KMF into an LMF when this is not economically desirable. A type 2 error is to not convert a KMF into an LMF when this is economically desirable. Discuss how each type of error could occur under Dow's proposal. Then discuss the potential advantages of Dow's proposal and whether these advantages are outweighed by the possibility of some type 1 and/or type 2 errors.

## Economics 426W

### Final Exam

Greg Dow

April 10, 2017

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. Your friend says, "In a competitive market, only efficient firms will survive. The fact that LMFs are rare means that they are not efficient." Give a detailed response to this statement.
- 1B. Your friend says "Firms are like governments. If democracy is good for governments, it is also good for firms, so we should have more LMFs." Give a detailed response to this statement.

Answer ONE of the following two questions. Do not answer both.

- 2A. Choose one of the following cases: (i) plywood coops; (ii) Mondragon coops; (iii) Lega coops. For the case you chose, give a careful description of how the firms were created and how they are organized. Then explain how they addressed each of the following problems: getting capital, dealing with risk, and making collective decisions.
- 2B. Chapter 10 discussed the life cycles of firms, including firm formation, conversions from KMFs to LMFs, conversions from LMFs to KMFs, and firm survival or failure. Discuss the possible role of each factor in helping to explain why LMFs are rare. Which factor(s) do you think are the most important? Why?

Answer ONE of the following two questions. Do not answer both.

- 3A. Some people believe LMFs are rare because they have poor work incentives. Describe this theoretical argument and discuss whether the empirical evidence tends to support it. Then do the same thing for the belief that LMFs are rare because they have difficulties making collective decisions.
- 3B. Some people believe LMFs are rare because they have trouble getting capital. Describe this theoretical argument and discuss whether the empirical evidence tends to support it. Then do the same thing for the belief that LMFs are rare because they force workers to bear too much risk.

Answer ONE of the following two questions. Do not answer both.

- 4A. Define asset specificity and quasi-rent. Then use a graph to explain how these concepts can be applied to a profit-maximizing firm (assume labor is variable and capital is fixed in the short run, but both inputs are variable in the long run). What does all of this have to do with LMFs (if anything)?
- 4B. In class I presented a model of adverse selection in the labor market. Describe the main assumptions and conclusions of the model (use some combination of words, graphs, and math). Can similar ideas be applied to the capital market? How? What does all of this have to do with LMFs (if anything)?

Answer ONE of the following two questions. Do not answer both.

- 5A. Explain why an Illyrian firm tends to reduce output and use less labor when the price of its output goes up. You don't need to give a complete mathematical proof, but use some math if possible. Then explain why an LMF with a competitive membership market will maximize profit. Again, use some math if possible. Do we have any empirical evidence about whether or not real LMFs maximize profit? Justify your answer.
- 5B. Use a graph to explain why it might be a bad idea to compare the productivities of KMFs and LMFs using the average product of labor (output per unit of labor). Next, define total factor productivity. Then describe how an economist could test the hypothesis that LMFs have higher total factor productivity than KMFs. Hint: assume both types of firms have Cobb-Douglas production functions.

Answer ONE of the following two questions. Do not answer both.

- 6A. In chapter 11, Dow states that capital is alienable and labor is not. Say what this means. Then explain why this difference can lead to differences between KMFs and LMFs in (i) commitments by firm controllers to non-controllers; (ii) composition of control groups; and (iii) commodification of control positions. For each of (i), (ii), and (iii), discuss one important fact about LMFs that the alienability theory can explain (do not use the rarity of LMFs; discuss some other facts).
- 6B. In chapter 12, Dow describes a process for converting KMFs into LMFs. Two of the key ideas are a labor trust and labor directors. Carefully explain how these ideas are related to ESOPs and codetermination (note that they may be similar in some ways and different in other ways). What problems are likely to arise in the conversion process? How does Dow hope to solve these problems? How convincing are his arguments? Explain.



## Economics 426W

### Final Exam

Greg Dow

April 21, 2015

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. How does Dow define a firm? Why are incomplete contracts important to the theory of the firm? Why is the absence of efficient short run bargaining important to the theory of a firm? What is the zone of acceptance? What are residual claims?
- 1B. What is an Illyrian firm? In what ways do Illyrian firms have unusual comparative static behavior? Is there any evidence that LMFs and KMFs have different comparative static behavior in the real world? Why do perfect membership markets cause LMFs to pursue profit maximization? Why are LMF membership markets usually imperfect in practice?

Answer ONE of the following two questions. Do not answer both.

- 2A. Describe how ESOPs work. Then answer the following questions: (i) why do you think ESOPs rarely lead to employee representation on the board of directors? (ii) why do you think ESOPs rarely accumulate more than about 20-30% of the firm's shares? (iii) what do you think are the main reasons why firms create ESOPs?
- 2B. Describe how codetermination works. Then answer the following questions: (i) what theoretical predictions did economists make about how codetermination would probably influence firm behavior? (ii) why do you think it has been difficult to find any statistical effects of codetermination on firm behavior? (iii) do you think that codetermination has had any important benefits or costs for the firms that use it?

Answer ONE of the following two questions. Do not answer both.

- 3A. Define each of the following concepts and carefully explain how it could be important for LMFs: (i) asset specificity; (ii) adverse selection; (iii) portfolio diversification; (iv) entrepreneurial rent.
- 3B. Define each of the following concepts and carefully explain how it could be important for LMFs: (i) transaction costs; (ii) total factor productivity; (iii) moral hazard; (iv) repeated games.

Answer ONE of the following two questions. Do not answer both.

- 4A. Most people regard Mondragon and the Lega as successful examples of LMFs. In each of these cases, there is not just a single isolated LMF, but a large group of related LMFs. What are the main benefits to an individual LMF of being part of a larger group? How did Mondragon arise historically? How did the Lega arise historically? What do you think are the main reasons why such groups have rarely emerged elsewhere? Explain.
- 4B. (i) LMFs are sometimes transformed into KMFs. Use the plywood coops as an example of this process. Describe how this transformation occurred in the real world, and discuss how it could be explained using economic theory.  
(ii) KMFs are sometimes transformed into LMFs. Use either United Airlines or Algoma Steel (not both) as an example of this process. Describe how the transformation occurred in the real world, and discuss how it could be explained using economic theory.

Answer ONE of the following two questions. Do not answer both.

- 5A. Three social goals are equality, democracy, and community. In answering this question, write about only one of these goals. Professor A believes that LMFs tend to promote the goal you chose. Professor B believes that LMFs are unlikely to promote this goal. Using both logic and evidence, give detailed arguments that each professor could use to support his opinion. Then say which professor's opinion is closer to your own personal view, and justify your answer. Note: this is not a question about economic efficiency (if you want to discuss efficiency, answer question 5B instead).
- 5B. Professor X says "there are large market failures that make it hard to create LMFs, and government intervention to overcome these problems would be highly likely to improve economic efficiency". Professor Y says "it is highly unlikely that there would be large efficiency gains from government intervention to encourage the creation of more LMFs". Provide detailed theoretical and/or empirical arguments that each professor could use to support her opinion. Then say which professor's opinion is closer to your own personal view, and justify your answer.

Answer the following question.

6. You have been hired by a group of workers who are starting an LMF. The workers want your advice about how to obtain capital, how to handle entry and exit by individual labor suppliers, and how to organize decision-making within the firm. The workers have never taken an economics course, so your advice has to make sense to such readers. Using no more than two pages (single spaced), try to answer their questions. Give specific reasons for your answers. If you require additional information before offering a definite answer, say what your answer would depend upon and why.

## Economics 426W

### Final Exam

Greg Dow

April 19, 2014

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. Some common economic hypotheses about the rarity of LMFs include (i) difficulties in leasing productive assets; (ii) difficulties with work incentives; (iii) problems obtaining capital; (iv) problems with risk aversion and diversification; and (v) problems involving collective choice. Despite these issues, the plywood cooperatives were quite successful. Explain how the plywood cooperatives overcame the five problems listed above.
- 1B. Explain how the Mondragon cooperatives overcame the five problems listed above.

Answer ONE of the following two questions. Do not answer both.

- 2A. The Illyrian model of the LMF predicts that when the price of output rises, the quantity of output falls. Explain in words why this occurs (you don't need algebra). Would a KMF have any similar problem? Is there any reason why an LMF can't copy whatever solution a KMF would use? Is there any empirical evidence that LMFs and KMFs have different output supply behavior in the real world? Explain.
- 2B. Define the horizon problem for an LMF and explain how it could arise. Would a KMF have any similar problem? Is there any reason why an LMF can't copy whatever solution a KMF would use? Is there any empirical evidence that the horizon problem is important (or not important) for LMFs in the real world? Explain.

Answer ONE of the following two questions. Do not answer both.

- 3A. Define total factor productivity and use a graph to explain why it is a better measure of productivity than the ratio of output to labor input. Then explain how TFP is related to the Cobb-Douglas production function (use a few equations and be clear about what you are assuming). Finally, show how TFP could be used in a regression framework to test the hypothesis that LMFs are more productive than KMFs.
- 3B. In class I presented a model of adverse selection in the labor market. Explain the main assumptions of this model, what happens in equilibrium, and why the equilibrium is not Pareto efficient. Use words and graphs as well as equations. Then discuss in words how a similar model could help to explain why LMFs have trouble getting loans from banks.

Answer ONE of the following two questions. Do not answer both.

- 4A. ESOPS are widespread in the U.S. and co-determination is widespread in Germany. For each of these systems: (i) describe how it works; (ii) use theoretical reasoning to discuss the possible economic effects it could have; and (iii) provide your own opinion about the actual economic effects (if any). Justify your answer.
- 4B. Choose either the Algoma Steel case or the United Airlines case (don't write about both). For the case you chose: (i) describe the situation that existed at the time when employees became interested in buying shares of the firm; (ii) describe the governance structure that was used after the employees bought shares; and (iii) provide your own opinion about the most important lessons that can be learned from this case. Justify your answer.

Answer ONE of the following two questions. Do not answer both.

- 5A. Professor X says: "According to Dow's book, the key reason why KMFs are common and LMFs are rare is that capital is alienable while labor is not. There is not much we can do about this, so there is not much we can do to increase the number of LMFs." Professor Y says: "I also read Dow's book, and he appears to believe that there are ways of increasing the number of LMFs. However I agree that this contradicts his emphasis on alienability." Explain what alienability means; why differences in alienability could make LMFs rare; what strategy Dow has for increasing the number of LMFs despite the alienability issue; and whether Dow is being contradictory. Justify your answer.
- 5B. One important goal in designing the policy proposal in chapter 12 was to avoid making shareholders worse off in cases where employees decide to buy out a firm. Discuss why this is an important consideration (hint: what would happen if shareholders did expect to become worse off?). Then discuss the main ways in which my proposal gives protection to shareholders, and offer your own opinions about how effective these safeguards might be. Justify your answer.

Answer the following question.

6. Describe what you regard as the two highest priorities for new research projects on LMFs or closely related topics. For each case, indicate the goal of the research, briefly discuss the methods to be used, and say why the results of the research would be important. Try to make your ideas practical (for example, don't consider projects where it would be very expensive or impossible to get the required information). Feel free to use ideas from the book, the lectures, the class discussions, or journal articles you have read, and be sure to justify your priorities.

## Economics 426W

### Final Exam

Greg Dow

April 19, 2011

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. Student A argues that if we have more democracy in a firm, we must inevitably have less efficiency. Student B argues that there is no trade-off between these two goals: promoting democracy will lead to greater efficiency. What are the arguments in favor of student A's view? What are the arguments in favor of student B's view? Explain.
- 1B. An economist wants to find out whether LMFs or KMFs have higher productivity. How should productivity be defined? What theoretical assumptions might be useful? What would be the ideal data set for making such a comparison? Assuming the econometric analysis is done correctly, would you expect one type of firm to have a large productivity advantage over the other? Why or why not?

Answer ONE of the following two questions. Do not answer both.

- 2A. Describe the main ways in which capital was obtained by (i) the plywood cooperatives and (ii) Mondragon. Do these cases support or undermine the hypothesis that LMFs are disadvantaged in the capital market as compared with similar capitalist firms? Explain.
- 2B. Describe how Employee Stock Ownership Plans (ESOPs) work, and say what the costs and benefits of this system might be from the points of view of shareholders, managers, and employees. Then answer the same questions for German codetermination.

Answer ONE of the following two questions. Do not answer both.

- 3A. Professor X says: "if comprehensive contracts could be used for all goods and services, no firms would exist, because production could always be organized through contracts. But in the real world, contracts are incomplete and firms must use authority to allocate resources." Assuming this statement is true, what are the most important reasons why comprehensive contracts cannot be used to organize production? How might authority overcome these problems? What costs are associated with the use of authority?
- 3B. Student A says that an LMF would maximize profit. Student B says that an LMF would maximize income per worker. Student C says that the members of an LMF have highly heterogeneous preferences, so it is impossible to predict what an LMF would maximize.

What are the strengths and weaknesses of each view? Justify your answers using both logic and evidence.

Answer ONE of the following two questions. Do not answer both.

- 4A. Consider the following economic hypotheses about the rarity of LMFs: (i) difficulties in leasing productive assets; (ii) difficulties with work incentives; (iii) problems obtaining capital; (iv) problems connected with risk aversion and diversification; and (v) problems involving collective choice. Rank these hypotheses in order from most important to least important. Justify your answers using both logic and evidence.
- 4B. Consider the following list of reasons for the rarity of LMFs: (i) they are rarely created; (ii) they are often converted into KMFs; (iii) KMFs are rarely converted into LMFs; (iv) LMFs frequently fail after they have been created. Rank these factors in order from most important to least important. Justify your answers using both logic and evidence.

Answer ONE of the following two questions. Do not answer both.

- 5A. In the Thursday lecture for chapter 10, I presented a model called “Worker Participation and Adverse Selection”. What were the main assumptions of the model? What were the main conclusions of the model? How did it fit into the rest of chapter 10?
- 5B. In the Thursday lecture for chapter 11, I presented a model called “Credible Commitment and the Structure of the Firm”. What were the main assumptions of the model? What were the main conclusions of the model? How did it fit into the rest of chapter 11?

Answer ONE of the following two questions. Do not answer both.

- 6A. Suppose the government of Canada passes a law that on Jan 1, 2012, all voting rights currently held by shareholders in publicly traded corporations will be transferred to the employees of these corporations, on the basis of one person one vote. What predictions can you make about the effect of this law before Jan 2012? What predictions can you make about the effect of this law after Jan 2012? Carefully explain your answers.
- 6B. According to the numerical estimates provided by Greg Dow in chapter 12, what are the main factors influencing how long it would take for employees to achieve 100% control of a firm through the purchase of equity shares by a labor trust? What factors affect the price of a labor share in a firm after it has been taken over by its employees? Carefully explain your answers.

## Economics 426W

### Final Exam

Greg Dow

April 27, 2010

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. Consider the following types of normative arguments for LMFs from Chapter 2: (i) equality; (ii) democracy; (iii) property; (iv) dignity; (v) community. Rank these five arguments in order from the one you believe is most persuasive to the one you believe is least persuasive. Provide detailed justifications.
- 1B. Describe how the author defines a firm in Chapter 5, and why he concludes from this definition that firms cannot be owned. Then describe another way of defining a firm, under which a firm can be owned. What do people normally mean when they say that person X "sold a firm" to person Y? Explain carefully.

Answer ONE of the following two questions. Do not answer both.

- 2A. The plywood cooperatives competed successfully against conventional firms for most of the 20th century. However, there have been few successful attempts to imitate these firms. Do you think this is mainly due to unusual conditions in the plywood industry of the US Northwest? Or is it mainly due to other factors? Justify your answer.
- 2B. The Mondragon system has competed successfully against conventional firms since the 1950s. However, there have been few successful attempts to imitate Mondragon. Do you think this is mainly due to unusual conditions in the Basque region of Spain? Or is it mainly due to other factors? Justify your answer.

Answer ONE of the following two questions. Do not answer both.

- 3A. Professor X says that perfectly competitive membership markets are essential for LMFs because without such markets, the LMF will behave like an Illyrian firm and it will suffer from horizon, common property, and degeneration problems. Professor Y says that this is nonsense because most LMFs do not allow retiring workers to sell their membership rights to replacement workers on a competitive market. What is each professor talking about? Who is closer to being correct? Justify your answer.

- 3B. Professor X says LMFs are more productive than KMFs because in the LMF, workers are residual claimants, and thus they have incentives to work hard and make good decisions. Professor Y says this violates the replication principle, because KMFs can give workers bonuses, profit sharing, and stock ownership. Thus KMFs can replicate the productivity level achieved by the LMF. Who is closer to being correct? Justify your answer.

Answer ONE of the following two questions. Do not answer both.

- 4A. Define adverse selection and moral hazard. Be sure to distinguish carefully between these two concepts. Then explain why they are important in studying KMFs and LMFs.
- 4B. Define the free rider problem and the collective choice problem. Be sure to distinguish carefully between these two concepts. Then explain why they are important in studying KMFs and LMFs.

Answer ONE of the following two questions. Do not answer both.

- 5A. Chapter 11 discussed asymmetries between KMFs and LMFs involving (i) credible commitment; (ii) the composition of control groups; and (iii) the commodification of control positions. Explain each of these ideas and why they help us to understand the rarity of LMFs.
- 5B. Chapter 12 discussed a proposal to encourage employee buyouts of KMFs. Describe a market failure problem that this proposal might solve. Be explicit about why markets do not solve the problem automatically, and why the proposal in chapter 12 might overcome the problem. Could this policy proposal instead lead to efficiency losses? If so, how?

Use the writing skills you have developed this semester to answer the following question. Take several minutes to think carefully and organize your ideas before you start writing.

6. The economics department wants you to write a one page single spaced description of Econ 426W. This will be distributed to future economics majors who have not taken the course. The purpose is not to say whether the course is good or bad. Instead, the purpose is to tell future students what preparation they should have before taking the course, and to give them a clear, accurate summary of what they will learn if they do take the course. Assume that students will stop reading after one page.

What do you say?



## Economics 426

### Final Exam

Greg Dow  
AQ 5016

April 18, 2009  
8:30 - 11:30 AM

All questions have equal weight. If something is unclear, please ask.

Answer ONE of the following two questions. Do not answer both.

- 1A. "Labor-managed firms are a very small fraction of the total population of firms. Thus, economists who study LMFs are wasting their time. They should instead study firms that are common, which are the ones managed by capital suppliers." Comment on this statement. Do you mostly agree or mostly disagree? Why?
- 1B. "Because firms rely on authority structures, they are a lot like governments. If democracy is a good thing in government, it is also a good thing within a firm." Comment on this statement. Do you mostly agree or mostly disagree? Why?

Answer ONE of the following two questions. Do not answer both.

- 2A. Mondragon and the Lega are large federations containing many individual LMFs. What are the main advantages of such federations for LMFs? Would a federation be equally valuable or necessary for a large number of KMFs? Why or why not?
- 2B. You have been given the job of designing an LMF. What are the most important lessons you have learned about the plywood cooperatives that would be useful in this task? What are the most important lessons you learned about employee stock ownership plans? What about co-determination? Explain how you would use the resulting insights to help design the organizational structure of your LMF.

Answer ONE of the following two questions. Do not answer both.

- 3A. "In an economy with private ownership, the owners of physical assets decide how their assets will be used. This includes the productive assets used by firms. Thus it is obvious that suppliers of capital will control firms." Discuss.
- 3B. Some people think LMFs are rare mainly for reasons involving history or culture. Other people think they are rare mainly for economic reasons. How important do you think each type of reason really is? Explain.

Answer ONE of the following two questions. Do not answer both.

- 4A. The Illyrian model claims that LMFs maximize income per worker. What are the main theoretical implications of this idea? Is there any empirical evidence that it is true? Is there any way for LMFs to overcome the resulting problems? Explain.
- 4B. Person A claims that KMFs have stronger work incentives because they can fire shirking employees. Person B claims that LMFs have stronger work incentives because they treat workers as residual claimants. Discuss whether one, both, or neither of these arguments violates the replication principle.

Answer ONE of the following two questions. Do not answer both.

- 5A. Consider the claim that workers disagree about the goals of the firm but investors agree on a goal. What are the main theoretical implications of this idea? Is there any empirical evidence that it is true? Is there any way for LMFs to overcome the resulting problems? Explain.
- 5B. What are the main reasons why KMFs are sometimes converted into LMFs? What are the main reasons why LMFs are sometimes converted into KMFs? Explain your reasoning and back up your answers with examples or evidence.

Answer ONE of the following two questions. Do not answer both.

- 6A. Assume the theoretical synthesis in chapter 11 is mostly right. Why would it lead to an attitude of "productivity optimism" but "financing pessimism" regarding the ability of LMFs to compete with KMFs? Explain carefully.
- 6B. Assume the proposals in chapter 12 are implemented. Would you be optimistic or pessimistic that these policies can increase the number of LMFs without imposing large costs elsewhere in the economy? Explain carefully.

BONUS QUESTION: worth an additional 5% (a few sentences are enough).

What is the most important thing you learned in this course? Why?