In my reading of your essay, I understand you to have been explaining to economists basically three key points as background for CV: (1) the nature of Catholic social doctrine is "theological", (2) what the term "society" means, and (3) what the term "common good" means. Understanding these three points is important, since a central thrust of CV is to clarify that the importance of man's relationships with one another (and the CSD in general) is promoting love and communion not in enhancing purely economic relationships.

Nature of CSD

The focus of Catholic social doctrine is essentially theological, in the loose sense that the teachings tell us something about man's nature, his relationship to God, and his relationship to himself and other men under the divine plan. In the social encyclicals, the Popes attempt to make this theology relevant to the social issues of the day, but if you are trying to read these encyclicals as economic manifestos, you are missing the point. (To rephrase Jesus Fernandez Villaverde's words, if you are focusing on the accidents of the doctrine and missing the essence, you are doing exactly that: missing the essence.)

I like this point a lot and I suspect that most Catholic economists would be happy to hear this. Although I know you mentioned As Catholics, we are happy to listen to the Church on matters of religion/theology, and we readily accept that there is an aspect of life (in fact the deepest aspect of life) to which economics does not speak. It is also a relief to find out that the thrust of the encyclicals is not intended to be economic. (Just as a suggestion, I suspect use of the word of "hermeneutical", which is not in the active vocabulary of economists, throws most of us for a loop.)

Given this, I think a good approach is to say, "Stop thinking like economists for the moment, and start thinking like Catholics in the pew. Let's try to get these religious/theological ideas across first. Afterwards, we can think of whether or how this relates to economics." The former is a pre-requisite for the latter. If we start worrying about the latter first, we may never actually accomplish the former. So, I will start by trying to get a grip on societies and the common good, without reference to markets or economies.

In getting these ideas across to economists, I think it is first important to clarify some basic terminology first. Economists put a high importance on clarity of terminology, as I imagine philosophers and theologians do, at least within in certain subfields. We have a natural suspicion of terms that cannot be clearly defined, and on theories that cannot be explicitly (i.e., mathematically) shown to be self-consistent. Loose terminology and insufficient formalization can often be an excuse for sloppy thinking. I am often frustrated by loose terminology when reading encyclicals (e.g., What is "the social question", and why have I never read phrased in the form of a question?)

Nonetheless, I think there are valid reasons for using loose terminology. First, some matters require a great deal of background in order to define formally. (A "trembling hand perfect equilibrium" has a very precise definition, but it would take weeks to define.) My own discussion of economics will necessarily use looser terminology for this reason. Second, there are concepts that can still be intelligibly discussed, even if they cannot be properly defined. (For example, although Justice Stewart admitted he couldn't define pornography, the word has very clear meaning: I think we can all agree with him that we "know it when we see it".) Third, for deep concepts, I think theologians often resist providing clear definition because it can create a false certainty with respect to deep concepts. To say the Trinity is "three persons in one divine nature" may give clarity, but to the extent that we think we have fully captured the Trinity in that doctrine, it a disservice to the greatness of the mystery. (Jesus never provided a clear definition of the Kingdom of God, but he certainly used it a lot in speaking.)

What is a Society?

In any case, in discussing what a society is, I think we should first define two important concepts: person and communion.

One of the first things we should have learned in catechism class is the purpose of life. "Why did God make me?" "To know, love and serve Him in this life, and to be happy with him in the next." Similarly, one of the first stories of the bible is that God created man "in his image." Both statements are essentially saying that man is a "person". By *person*, we mean a being endowed with the ability "to know and love", i.e., with reason and will. Persons stand in contrast to things in that they have much greater dignity or importance. A person is a "who" and not just a "what", so we can understand the Trinity as being three persons ("whos") in one God ("what"). This idea of person is obviously central to our understanding of religion. It is also central to understanding a great deal of Christian ethics (e.g., persons should never be considered/treated simply as means to an end.)

Persons by their nature are meant for communion. What do we mean by "communion"? *Communion* is to be united with a person or group of persons in love, while still retaining one's own identity. The Trinity is the first, and most obvious example. A second example, which is in many ways an image of the first, is the Communion we will experience with God in Heaven, and when Christ will be united with his Bride, the Church. This is the "to be happy with him in the next" part of the Catechism answer. A third example, which is an image of this second example, is the Eucharist. In receiving the Eucharist, we are united with Christ and the Church, and so we call the sacrament "Communion". So communion is also very central to our faith. Perhaps it would be fair to say that if love is the cause, then communion is the effect. This love and communion with God and people is the purpose of life.

Okay, one could now define *society* as a group of persons who share communion at some level.¹ Again, the Trinity is the ideal model of society, but there are less perfect reflections of this society. Thus, there

¹ Before reading your paper I had in mind an alternative understanding, which was that a society follow a standard definition ("a group of people related to each other through a persistent social relationship" - wiki). Here people in line at the bank do not have a persistent relationship, so would not constitute a society. Communion would be a natural goal of every society, but wouldn't be essential to defining a society.

are different levels of society. Your use of marriage is a great example though. A family is the most basic human society, and it most closely reflects the Trinity. The Sacrament of Marriage, like Holy Communion, is also a clear reflection of the heavenly communion of Christ and his Bride. (Ephesians 5:31-32).

There are lower levels of societies too, however, like parishes, teams, companies, nations, and the entire human family. All of these typically reflect, or can at least be opportunities for, some type of communion. I liked your mention of labor unions, the right to form labor unions comes not from the right to collectively bargain, but the natural right to form voluntary societies, which comes from our social nature, i.e., the fact that we are by nature persons meant for communion with one another. Now not every group of people is a society, since shared communion is a defining characteristic of a society. I thought your example of people standing in line would not constitute a society, since they do not really share communion.

Having used the term "natural right", I should also make a (perhaps inadequate) attempt to define "natural law", since I think it will also be useful later on. *Natural law is* a rule or system of law/ethics that is (1) based on human nature, (2) reflects God's eternal law, and (3) can be discerned through human reason and knowledge of the world.

I realize one reason that one reason that CSD is not often explained in purely religious terms as I have, is that the Church believes that given point (3), it can be explained in more general terms. But sometimes, important aspects are lost. For example, Cardinal George's definition of the principle of subsidiarity, "the people who make decisions, should be the people who have to live with the consequences", while clear, was only a partial definition in my opinion. Economists can immediately agree with this definition because subsidiarity makes a great deal of economic sense. But subsidiarity is really an *ethical* principle that leads to communion, by respecting the identity (and therefore dignity and freedom) of other persons and smaller societies. Thus, it has more to do with God and communion than with efficiency. It is an ethical principle rather than an economic or political principle. The fact that it also makes economic sense only reflects that God has made his eternal law (point 2) accessible through our knowledge of the broader world (point 3). That is, the principle may make practical sense, but the larger point is that it helps lead us to God in some way.

What is the common good?

I think a similar point holds for how you have explained the common good. Every society has *the common good*, which we might simply define as the objective benefit or good that comes to persons from being part of a society. Now a band of thieves may not be beneficial or good, but this wouldn't be a society by our definition, since it would lack communion. The common good encompasses this entire benefit that the members receive in common, so it could involve the goal of a society (e.g., a marriage having a child, benefiting economically from husband and wife specializing, being healthier, happier). These benefits are part of the common good, but they are not the full common good. Just like economic efficiency may point to subsidiarity but don't capture the heart of it, economic and psychological benefits help point to the heart of the common good but don't capture the heart of it. The heart of this

common good is the communion that simply comes from participating in society and sharing some level of love with the members.

Now I think the main point of CV that you emphasize is that it is important to put this heart of the common good, communion, in the center of all of our societies, including economic societies, such as firms, markets, etc. Markets and exchange alone might be able to create these other benefits, but they cannot create communion and love. Moreover, this love and communion has to be true love and communion, i.e., in harmony with the truth about man and God.

If this is a reasonable understanding, then I think we can go on to considering how this relates to economic science. This really involves two issues: (1) the extent to which these concepts are incorporated into current economic thought, and (2) the extent to which incorporating these ideas is important for the questions economists address?

Current concepts of common good in economics

To what extent is the concept of the social nature of man and the common good is incorporated into current economic thought and methodologies?

First, economists tend to distinguish between positive and normative research. Positive research focuses on how things are or how things might be under different scenarios. That is, it focuses primarily on empirical measurement and predictive theory. Normative research deals with how things ought to be. The vast majority of research is positive, and even within normative research, economic research is fairly focused, addressing mainly issues of efficiency and, to a lesser extent, inequality. Economists come from a wide variety of religious, cultural, and philosophical backgrounds, so much of the limited focus is intentional. In a diverse group, it is much easier to get agreement on positive research than it is to get agreement on deeper values. In any case, the latter is certainly not economists' expertise.

In positive economics, we do formally incorporate many common goods, in both the plural and singular, into our theory. In general, I believe that economists incorporate a great deal more into our theory than lay people from outside of the field are aware. It is often frustrating to hear claims that economists don't think about X because it is often (usually?) the case that researchers are not only doing X but publishing it in frontier journals.

A first way of considering the social aspects of man and the common good concept is considering public goods. Public goods are goods that are non-rival (one person's use does not exclude another's use) and non-excludable (no one can legally prevent one from using another). National defense or clean air might be considered pure public goods. Ideas would non-rival, but partially excludable (through patents, copyrights, etc.) With public goods, the idea of whether something is actually divisible, or even tangible, ends up not to be a crucial distinction. The theory can easily incorporate either. We can model a marriage as producing a good/benefit that is common to the spouses (extra money, even children!), which might conceptually think about distributing between the spouses. We could also consider a benefit that cannot be redistributed. In coarse terms, this would be the "utility" one gets from being

married, which could be happiness, but strictly speaking is just a way of saying that there is something beyond the measurable output that makes people get married.

One way we think about the social nature of man is through "social interactions" of preferences. Your actions may directly enter into the decisions I make. The most frequent type of social interaction is called "altruism". We can model a father having a preference for his son to have high consumption, or to go to college, or simply that his son's own desires be better fulfilled. We can think about fads and fashions too.

Economists have also spent a fair amount of time thinking formally about how to deal with conflicting preferences: e.g., one person prefers to invest in a public good for the poor and another does not. (Chris mentioned a result in these literatures, called "social choice" or "public choice".)

It seems to me that culture is another aspect of the common good, and there has been a bit of work on culture, both empirically and theoretically.

Empirically, there is work measuring the extent to which culture matters, and there is much debate on this. In laboratories, economists pose different problems to subjects, and people from different countries, men and women, etc. often respond in systematically different ways (e.g., showing more/less reciprocity, more/less risk-taking). In the world, both measuring and isolating culture or different aspects of culture is extremely difficult, but there is work on this. Luigi Zingales has actually written a fair amount on this, looking at the effect of trust and cultural affinity.

Theoretically, we also take many approaches. One way economists think about cultural differences is simply as different equilibria. A simple example would be why is it a norm to drive on the right in the U.S., but the left in Britain? They may simply be somewhat arbitrary but stable norms. Why do you see mutual co-operation in some countries, and war and conflict in other countries? The one might be a virtuous cycle, while the other is a vicious cycle. Or there may be unique outcomes, but these outcomes depend on differences in underlying resources, institutions, technologies, available information, etc. Game theory deals with some of these questions.

Another theoretical way to think about culture is through preferences. Economists are typically reticent to lean on preferences as an explanation for two reasons, however. First, it is simply too easy an explanation? (e.g., Why is there more war in Africa than in modern Europe? Europeans simply have a stronger preference for peace.) Second, it doesn't really explain anything. If Europeans did indeed have a stronger desire for peace, the natural next question would be, "Why?" There is some work on the formation of preferences (Professor Mulligan actually has some work on this.) Economists have used this approach to think about parents instilling patience into children, the interaction of economic phenomena and addictions.

Issues and Limitations of Economic Approach

You mentioned exposing the warts, and so I'll explain some of the limits of economics in this discussion. In so doing, I'll try to partially address the extent to which economics might be more enriched by inclusion of these concepts. I think this is an important conversation, and so I just offer up several thoughts on this.

First, economics is an empirical science. We focus on things concepts we can measure and theories that can be tested. This allows us to discard or modify ideas that don't stand up to empirical reality. For most economic questions, I view this as a major strength relative to other approaches. (A complaint many economists have with other approaches to the economy is an unwillingness to confront empirical realities and put theories to the test. Marxist analysis would be an example.) Nonetheless, while we can be very creative in how we think about modeling and measuring things, many things are difficult or nearly impossible to measure. We have measures for altruism, trust, risk-taking behavior. It might be very difficult to think about measuring faith, hope, and love. The scientific approach is also a logical limitation; it is not a logical necessity that the true explanation be a scientifically testable explanation. An obvious example is the Real Presence in the Eucharist, but that is an example of a matter of faith.

Second, on the normative side (i.e., value-laden questions of how things ought to be), I think we are very limited. I mentioned that we tend to focus on only efficiency and distribution issues, which is a problem for Catholics. A larger problem is that we tend to focus on a very limited view of the good (i.e., people's choices), but people's choices can be very far from an objective, absolute good, which we believe in. Their own choices may even be very far from their own subjective view of the good (e.g., addictions would be an example, although economists do also have models of internal conflict).

In thinking of the common good of marriage, for example, we could model a joint benefit of marriage, but such a benefit would be essentially subjective. So, for instance, if we see a divorce, it might imply that their subjective valuation of this benefit has declined. CST would say that the marriage has an objective value, however. So, beyond economic reasons for not having on-demand divorce (e.g., people are not able to commit as easily), there may be a paternalistic reason (e.g., people don't value marriage as much as they should). Again, I think there is a reasonable wariness toward too paternalistic a view of what is good for individuals, but I am always careful to tell my students that there is a difference between preferences and objective goods. I think most Catholic economists would (and often do) welcome the Church's voice in normative discussions, but we hope that we can help that voice be open to the economic realities of the world.

Second, I often think that CSD presupposes or perhaps implies that people are much more social than we generally consider them. Perhaps there is a great deal of public goods that we have the tools to consider but don't, and perhaps culture and other social interactions also play a larger role. I am actually sympathetic with this in principle. One defense of economics is that culture, social interactions, and public goods make theories more complicated, more difficult to solve, less tractable. These social interactions can also be exaggerated, the extent to which these things matter must certainly depend on the question. If we are considering marriage, or parent-child relationships, then it seems necessary. If we are thinking about the social interaction between me and a female nurse in the Ukraine, I may have a general agape for her, but it is probably irrelevant for which house I decide to purchase. In any case, on the positive side (i.e., when we use economics to predict behavior), the extent to which these things

are relevant becomes an empirical question that the data can help us answer. I don't believe the Church claims any expertise in this area.

Third, in thinking about culture, I can immediately think of two ways that economics is limited. First, when thinking about the formation of preferences, based on the actions of individuals and the people around them, but we always have to start with some initial preferences to get the ball rolling? (It is necessary to start with something that is not explained but instead taken as given.²) Where do those initial preferences come from? It is difficult to isolate or think about what "primitive" preferences stemming simply from man's nature and physiology might be. In any case, I think the basic preferences we usually write are reasonable for most questions.

I think a stronger limitation is in thinking about virtue. As a Catholic, I see virtue as an important aspect of culture. While there is economic research on virtue, in my opinion it has been understudied. I think there are important questions involving virtue? Whose investments are most important? How does it propogate? How do different policies and societal trends (e.g., family, schools, religion) affect its formation? How important is it for various economic phenomena?

Again there are decent reasons that it has been understudied. First, it is difficult to both measure and model. Second, there has been a view that virtue can simply be inculcated into the population to make economic problems no longer relevant. While I think virtue is important, I find utopian ideas misguided. I do view it as a strength that economists take the fallen nature of man seriously.

The biggest reason we have understudied virtue is that, properly viewed, virtue falls outside of the realm of economics in many ways. Economic theory ultimately deals with people's choices and actions, but the heart of virtue is really the interior disposition of the person. Now true virtue generally manifests itself in action, but this is accidental, in a similar way that economic efficiency was accidental to subsidiarity. St. Paul wrote, "If I give away all I have to the poor but have not love, I am nothing". We could think of two people take identical magnanimous actions, one does them out of love and the other out of vainglory. Now, if these people were in no way distinguishable by their actions (e.g., there isn't a situation where the vain person would behave differently from the loving), then economists would model them as identical people. Again, this would not affect the predictive aspects of the model, but it could affect normative valuations. Since virtue is the central characteristic of both the good life and good society, this is a clear limitation. Hence, I find the emphasis on communion by both you and the Pope, very important, but beyond the scope of economics in important ways.

In all of these cases, I have used the word limitation rather than flaw. This is not because I feel that economics is without flaws. Economics and economists have many flaws, especially in practice. Instead, I use it to emphasize that I think that pointing out the limits of economics is more important than pointing out the flaws. I don't believe economics can deal well with thinking about faith, hope, love, courage, etc., but this only says that economics doesn't provide a complete view of man. Such a view

² It may be strictly true that "everything depends on everything else", but if this contention dominates all discussion, then we human beings may as well throw up our hands. We cannot understand everything in its entirety, so we have to be able to focus on simplified parts of the whole.

demands more than we could expect from any one discipline. Most economists would agree with this, especially Catholic economists.

I remember mentioning to a theologian at our conference last year, "Of course economics doesn't capture everything about the human experience. Jesus is the most central person in the human experience, and the person whom I try to make the center of my life. In all my years as an economist, I have never seen an economic model with Jesus in it."