MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION OF THE REPUBLIC OF UZBEKISTAN TASHKENT FINANCIAL INSTITUTE DEPARTMENT OF ECONOMICS



Economic security

Handbook for practical lessons

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The direction of

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INTRODUCTION

In a world where transactions are costly, institutions influence economic performance. This course will focus on New Institutional Economics. Students will be introduced to the concepts of institutions, organizations, property rights and transaction costs. Their effects on the existence and working of firms, markets and states as well as on long term economic growth will be analyzed. In an exemplary way, the influence of institutions on other social issues like environmental problems and crime will also be addressed.

Working curriculum on "Economic security" is developed on the basis of the main provisions of the Decree of the President of the Republic of Uzbekistan UP-4947 dated February 7, 2017 "On the Strategy of Action for the Five Priority Directions for the Development of the Republic of Uzbekistan in 2017-2021" and Presidential Decisions of April 20, 2017 PP-2909 "On measures for the further development of the higher education system" and PP-3775 dated June 5, 2018 "On additional measures to improve the quality of education in higher educational institutions and to ensure s active participation in the ongoing large-scale reforms in the country" and it highlights the key aspects necessary for the teaching of discipline.

Bachelor in this discipline should know and be able to take advantage of:

- analyse of the institutional structure of society;
- use the concept of transaction costs in the explanation of institutions, business practices and contract types;
- conduct comparative institutional analyses of property rights regimes;
- explain the emergence of property rights;
- apply transaction costs economics to explaining the choice of type of contract;
- analyse the behaviour of the firm based on its property rights structure;
- Use of the neoclassical theory in the explanation of the state;
- conduct economic analysis of the behaviour of the state;
- analyse institutional changes;
- use the concept of path dependence in the analysis of the dynamics of modern institutions;

The distribution of the number of hours allotted to the discipline "Economic security" by topics studied in 7th semester for the 4th year students of following directions: 5230100– Economics (by fields).

		Total	Among them		
№	Topics		Lecture	Practical class	Self-study
1-module. Institutional economics					
1.	Economic security of the enterprise (firm)	6	2	2	2
2.	The decisive factor in industrial and and economic security	6	2	2	2
3.	Agro-industrial complex and economic security of the country	8	2	2	4
4.	Financial system and its role economic security	8	2	2	4
5.	Public debt and economic security	6	2	2	2
6.	Hidden economy: essence and causes of origin and ways of elimination	6	2	2	2
7.	Corruption is the main form of the hidden economy	8	2	2	4
8.	Transportation system security and maintenance	8	2	2	4
9.	Environmental security and challenges	8	2	2	4
	Directions for ensuring the economic security of the social sphere	8	2	2	4
11	Regional economic security and regional policy	8	2	2	4
12	International and national economic security its tasks and functions	8	2	2	4
	Total hours for 7 th semester	88	24	24	40

A case study is an in-depth study of one person, group, or event. In a case study, nearly every aspect of the subject's life and history is analyzed to seek patterns and causes of behavior. Case studies can be used in a variety of fields including psychology, medicine, education, anthropology, political science, and social work.

The hope is that learning gained from studying one case can be generalized to many others. Unfortunately, case studies tend to be highly subjective and it is sometimes difficult to generalize results to a larger population.

'Knowledge is the beginning of practice; doing is the completion of knowing. Men of the present, however, make knowledge and action two different things and go not forth to practice, because they hold that one must first have knowledge before one is able to practise. Each one says, 'I proceed to investigate and discuss knowledge; I wait until knowledge is perfect and then go forth to practise it.' Those who to the very end of life fail to practise also fail to understand. This is not a small error, nor one that came in a day. By saying that knowledge and practice are a unit, I am herewith offering a remedy for the disease.' Wang Yang-ming, Chinese philosopher, 1472–1529 The main aim of economics education is to enable students to 'think like economists'. According to recent research, thinking like an economist includes not only analytical or problemsolving skills but also creative skills, which 'help determine how to frame questions, what tools and principles apply to particular problems, what data and information are pertinent to those problems, and how to understand or explain surprising and unexpected results' (Siegfried et al., 1991, p. 199). A large body of evidence (see, for example, Brown et al., 1989; Boehrer, 1990) shows that an effective way to accomplish this learning is to provide students with increased opportunities to become more actively engaged in the application of economics.



However, much of the teaching in many higher education institutions takes the traditional form of lectures and seminars supplemented by problem sets, written assignments and limited class discussions. As recently pointed out by Becker and Watts (2001), the predominant teaching method in economics departments in the United States is still what they refer to as 'Chalk and Talk'. As lecturers, we would generally agree that the most vivid and powerful lessons from our own educational experiences are related to projects in which we were actively involved. Concepts, ideas and experiences are harnessed and clarified in our mind more easily and quickly through direct experience than through the reading of books and abstract theories and concepts. This is particularly true in the early development of cognitive skills. The use of the case method in the teaching of economics has received greater attention in recent years. Velenchik (1995) discusses her experience in using the method to teach international trade policy. She provides an evaluation of the method by comparing the results of students exposed to case discussion with the results of students on the same course but who have instead been taught in more traditional ways. She observed that the students on the case course had a more complete grasp of theory and did better in examination questions requiring analysis of real-world situations using theory. She also observed a dramatic improvement in students' analytical thinking and in their ability to express themselves verbally. Carlson and Schodt (1995) discuss

their experience of using the case method in teaching development economics and international monetary economics. They present a detailed account of students' evaluation of the case method and they are able to show that students are emphatically positive and convinced that the use of cases helped them to learn economics. According to their findings, students feel that the use of cases adds interest to the study of economics and makes their classroom much more real. Carlson (1999) explains how students on his statistics course are presented with a situation that requires statistical and economic analysis to solve a realistic problem.

Cases with data for real applications are supplied to students who are then required to prepare a written report to a policy decision-maker. The author's evaluation of the case method shows that the students' involvement in problem solving has greatly improved their learning of statistical methods. Traditional lectures and seminar are still valuable for transmitting information and knowledge. However, to help our students learn to 'think like economists' we need to consider seriously ways of moving beyond this more traditional mode of instruction. Some of the innovative and more active suggested forms of teaching and learning include the use of classroom games simulations, the introduction of experimental economics, the use of popular and business press, the use of case studies and co-operative learning. In this chapter we will focus on how case studies can be used in economics teaching. The remainder of this introduction explains the basic philosophy of the case method of teaching, its pedagogical value and the different approaches to the use of case studies.

Benefits and Limitations

A case study can have both strengths and weaknesses. Researchers must consider these pros and cons before deciding if this type of study is appropriate for their needs.

One of the greatest advantages of a case study is that it allows researchers to investigate things that are often difficult to impossible to replicate in a lab. Some other benefits of a case study:¹

- Allows researchers to collect a great deal of information
- Give researchers the chance to collect information on rare or unusual cases
- Allows researchers to develop hypotheses that can be explored in experimental research

On the negative side, a case study:

- Cannot necessarily be generalized to the larger population
- Cannot demonstrate cause and effect
- May not be scientifically rigorous
- Can lead to bias

Researchers may choose to perform a case study if they are interested in exploring a unique or recently discovered phenomenon. The insights gained from such research can then help the researchers develop additional ideas and study questions that might then be explored in future studies.

The case method The case method was born out of research, teaching and consultancy activities at Harvard Business School. Over the years, case programmes have been established at both Harvard Business School and the Kennedy School of Government. The experience accumulated by tutors and teachers is shared through the publication of short papers that discuss the various pedagogical approaches to case method teaching (see, for example, Boehrer, 1995; Shapiro, 1994). The classical case method has three main components: the case itself, the students' preparation for the case, and the discussion that takes place in the classroom. Cases are stories about situations in which individuals or groups must make a decision or solve a problem. Cases supply students with information, but not analysis. Although many cases are drawn from real events in which decisions have been made and the outcome is known, most do not describe the decision itself, leaving students with the task of determining what the correct course of action would be. Case method teaching is a form of discussion teaching in which students prepare a case, either individually or in groups, and then seek collectively through inclass discussion to discover a solution to the problem presented by the case. Unlike problem sets, cases do not set the problem out in clear steps; nor do they lead to a single correct answer. Unlike examples used in lectures, textbooks or scholarly articles used for discussions, cases contain facts and description but no analysis. The story in the case can be told in narrative form, with numerical data, charts or graphs, with maps or other illustrations, or with a combination of all these techniques. Newspapers and magazine articles, insofar as they chronicle events without presenting analysis, can effectively be used as cases. This is true even for articles describing a policy decision or an action that has already been made, as long as they do not provide an analysis of the decisionmaking process itself. Cases can often be composed of a number of newspaper articles, particularly if they present different points of views about a single issue. For the inexperienced lecturer, approaching case method for the first time, newspaper articles (or newsclips) on a particular case can be effectively used as the first step towards the gradual development of an in-depth and comprehensive account of the case. This 'progressive' approach to the use of case studies will be discussed in more detail later in the chapter. The success of the case study method is critically dependent upon student preparation. Students must come to class well versed in the facts of the case and prepared to provide an analysis of these facts. In the early stages of a module, it is usually helpful to provide students with study questions to guide their preparation, including questions aimed at focusing attention and questions that help them to begin the analytical process. These questions generally ask students to think about the relationships between the facts and events described in the case. The in-class discussion, the core of case method teaching, is flexible enough to accommodate a variety of different strategies for involving students. Role playing, for example, heightens the Teaching – Case Studies 3 identification of students with actors in the case. Students may be organised into groups as a means of building consensus or of sharpening conflict. Students might prepare the case within a group or form groups more spontaneously during the course of discussion. Individual or group presentations can be the starting point of the discussion.

The pedagogy of case studies

The case method is based on a philosophy of professional education which associates knowledge directly with action (Boehrer, 1995). This philosophy rejects the doctrine that students should first learn passively, and then, having learned, should apply knowledge. Instead, the case method is based on the principle that real education consists of the cumulative and unending acquisition, combination and reordering of learning experiences.

There are two fundamental principles underpinning the case method. First, the best-learned lessons are the ones that students teach themselves, through their own struggles. Second, many of the most useful kinds of understanding and judgement cannot be taught but must be learned through practical experience. When instructors assign problems or papers in a course, they are motivated by a similar concern: by working through the problem set on their own or writing the paper, students reach a deeper understanding of the concepts and ideas than they would have if they only read the text or listened passively to lectures. Case method teaching extends this principle to make preparing for class and the class session itself an active learning experience for students. By using complex real-world problems as the focus, it challenges students to learn skills that will be appropriate to deal with the practical problems that they will face as economists, civil servants or private managers.

Teaching through the case method allows educators to address specific pedagogical issues and to develop higher-order skills in students. Velenchik (1995) highlights four pedagogical issues addressed by the case method:

Motivation to learn theory. In general, undergraduate economics courses tend to treat applications as secondary to the exposition of theory. In our teaching we often use examples to illustrate the application of particular theoretical concepts. However, we tend to use the example to reinforce the theory, having taught the theory first, rather than thinking of the theory as a set of tools for answering the question posed by the application. The focus, therefore, is on the theory itself, and the application is often perceived as incidental. When students

do not understand the purpose of theory, the process of learning becomes more dry and difficult than it needs to be, and they often fail to grasp the tools they need. In the case method, the problem that the students are challenged to solve takes centre stage. They soon realise that they do not have the tools and they start looking for the tools. They want to learn theory.

Application of theory. The ultimate goal of economics education is to enable students to apply economic reasoning to particular policy issues. The focus is generally as much on the process of policy analysis as on the specific area of policy. One method for illustrating the process is through examples related to lectures. However, this is problematic. The example is often preceded by theory, so that students think of the application as a use of the theory, rather than seeing the theory as a tool for dealing with the issues raised by the application. Examples are commonly selected because they are good illustrations of particular theoretical concepts, but they do little to help students learn which theories are appropriate for which kinds of policy problem. On the other hand, the case method requires the student to identify the theory that best addresses the economic problem under investigation.

Use of evidence. Empirical analysis, guided by theoretical concepts and analytical tools, is central to many economics modules. Students are often required to develop an ability to use quantitative evidence. This often involves a number of tasks, including determining what types of evidence are relevant measures of particular phenomena, evaluating the credibility of available information, performing calculations to arrive at appropriate and useful measures, and finding the best way to convey this information using tables and graphs. In this respect, although the lecture and example method usually provides students with some exposure to quantitative information, it does not require them to do the work themselves. A prepared classroom example does not provide training in how to select, manipulate and present such evidence; nor does it help students learn to interpret evidence themselves. Case studies include raw data that students have to manipulate, represent and comment on in order to solve the problem.

Limitation of theory. One of the most difficult aspects of applying economic analysis is understanding which parts of a question can be answered by economic analysis, and which are best addressed using other disciplines. In particular, students need to learn the difference between identifying economic consequences of a policy choice and considering these decisions in the broader social and political context in which policy-makers and business leaders find themselves. It is difficult to use a lecture and example to fulfil these goals, since classroom examples are often abstracted from their context. The case method forces students to be confronted with the broader (non-economic) consequences of economic decisions.

The case method can also be used in a very effective way in order to move students gradually up the cognitive skills ladder from the low skills levels of knowledge, comprehension and application to the higher and more desirable skills of analysis, synthesis and evaluation. This educational taxonomy was originally proposed by Bloom (1956) and, even if not uncontested, it provides a transparent and structured approach to the development of students' skills. The following list describes this educational taxonomy and then explains how the case method helps in developing each of the skills.

Knowledge. This refers to the student's ability to remember previously learned information. It involves the recall of a wide range of material but all that is required is bringing appropriate information to mind, not necessarily understanding its meaning. The case method is probably not the most efficient way to convey knowledge. However, in combination with some lectures, it can be used to broaden knowledge.

Comprehension. This skill is defined as the ability to grasp the meaning of material and it can be demonstrated by translating material from one form to another, by interpreting material and by extrapolating information. By basing knowledge within a real-world context, the case method supports and facilitates the comprehension of basic knowledge.

Application. This is the ability to use learned material in new and concrete

situations. It may include the application of rules, methods, concepts, principles, law and theories. Through the analysis of policy decisions or business strategies, students develop an understanding of how theory is applied in real-world contexts.

Analysis. This identifies the ability to break down material into its component parts so that its organisational structure may be understood. The process generally includes identification of the parts, analysis of the relationships among the parts and recognition of the organisational principles involved. As already mentioned, analysis is at the centre of the case method. The case studies require students to break down complex information, establish relationships and identify issues.

Synthesis. This skill refers to the ability to put parts together to form a new whole. The process may involve, for example, the production of a unique communication (presentation) or a plan of operations (research proposal). Case studies foster this skill by requiring students to identify relevant information, summarise fundamental concepts and present a concise summary of main events.

Evaluation. Critical evaluation is concerned with the ability to judge the value of material for a given purpose. After having analysed and synthesised a particular case, students are required to engage in an evaluation of alternative policies or strategies available to policy- makers or business leaders. This can include an evaluation of decisions already taken against possible alternative solutions.

The case method is a rich and powerful approach to the development of cognitive skills in students. It is also a flexible approach, in the sense that lecturers can use it in alternative ways. These are discussed in the next section.

Adopting the case method

There is no single approach to case teaching. Instead there are several approaches which work for different people in different situations. However, in general, it is possible to distinguish between two main ways of using case studies.

The first way is to use the case study as a support and an illustration in lectures and seminars. For example, in the lecture you might explain how the case

illustrates typical dilemmas or issues that policy-makers, public or private managers face and the principles that can be used to help them reach a reasonable decision. In seminars, short cases can be discussed to show the application of theory, stimulate analysis and induce evaluation. This approach to the use of case studies does not necessarily require the development and presentation of long and elaborated case studies. Extracts from newspapers and business journals can be used to great effect in investigating issues and fostering students' analytical skills. The main advantage of this approach is that it requires relatively little preparation and constitutes an easy and gradual introduction to the use of longer and more comprehensive case studies at a later stage.

The second way of using case studies is to challenge the students to grapple with a decision- maker's dilemma, formulate a strategy and come to a class prepared to explain and defend their recommendations. In this approach, which is usually referred to as 'case method teaching', the instructor either does not lecture or conducts a limited number of lectures that are complemented by the analysis of longer and more complex case studies. The role of the lecturer is to moderate a classroom discussion among the students in which the students compare their different approaches. Learning from each other, the students work together to reach a richer understanding. This requires more effort on the part of the lecturer in order to prepare the required case studies and to plan for their use in class discussion.

This chapter outlines each of these two approaches to case studies teaching. If you believe in the pedagogical value of case studies and are new to this teaching method, the gradual progression from the use of newsclips to the use of more comprehensive case studies can represent the best way of introducing this approach into your teaching. Section 2 explains how you can introduce the case method by using short newspaper articles. Section 3 focuses on 'case method teaching', which contemplates the use of longer and more comprehensive case studies. In both sections the overall aim is to show how you can accommodate the case method in your economics modules and, above all, to show how they help

achieve the pedagogical goals.

The case method through the use of newsclips

The use of newspaper articles in economics is relatively well documented (e.g. Becker, 1998). Many instructors like to use newsclips because they portray the complexity of business and political situations and the role of economic theory in unravelling that complexity. Case studies and, by implication, newsclips allow teachers to manipulate data, investigate hypotheses, deal with uncertainty and complexity and, ultimately, come to a decision. Many introductory textbooks complement the more formal exposition of theories and concepts with newsclips that show the applicability of theory to practice. However, less is known and written about the actual use of newspaper articles in the teaching room and its pedagogical value. The work of Becker (1998) is, therefore, something of an exception. He discusses his experience in using newsclips to motivate students' analysis and to help them to learn quantitative skills. The next subsections intend to address these issues, but before this is done we present a short taxonomy of newsclips.

A taxonomy of newsclips

The term 'newsclip' should be interpreted as news that has a cited source. In particular, we refer to articles published in business newspapers and magazines or in the financial pages of daily newspapers. Bredon (1999) identifies four main ways in which the news is used in teaching economics:

Osmotic newsclips. These are newsclips that have no commentary except possibly for course headings that may help students identify their relevance. They are used in the belief that familiarity will eventually translate into economic literacy.

Case study newsclips. These are published intact and are accompanied by questions and/or analysis. They are usually complex in their coverage.

Focused newsclips. These are short news excerpts used to illustrate a given economic principle or theory.

Reworked news. This is written in the author's own words with specific

acknowledgement of the news source.

The use of newspaper articles in your teaching will mainly require the use of focused and case study newsclips.

Embedding newsclips into the lecture

In the lecture you should use focused newsclips, since the information provided to the students needs to be clear, simple and straight to the point. In many cases, articles contain additional information that is not directly relevant in the context of the topics that the lecture intends to address. This 'noise' in the article can create confusion and take attention away from the relevant issues. Without careful selection the danger is that newsclips simply end up confusing and discouraging students.

Make sure to select newsclips that contain (technical) terminology that is part of the economic theory discussed in the lecture. This will make students aware that the issues discussed in class are not abstract concepts, but are readily applied in the business context.

The lecture could then be structured as follows. At the beginning of the lecture, show the article to the students to introduce the lecture topic and to highlight the main points of discussion. Read the article with the students and emphasise the main issues emerging from the article. In this way you will be able to create the context for the delivery of the lecture. The students' attention is captured, interest is stimulated, issues are raised and general knowledge is conveyed. Conclude the reading of the article by posing questions concerning the actions, decisions and strategies of the economic agents portrayed in the article. This helps to focus the issues under investigation and suggests the lines along which the lecture will be articulated.

Thus, the case study provides a motivation to learn theory because the students begin to understand that unless they have some further knowledge, they will not be able to deal with the issues raised in the newsclip. Learning theory is no longer a dry and passive affair, but an active exercise aimed at solving problems. The ground for the development of the theory is then prepared.

The lecture should then develop along traditional lines where the main theoretical concepts are developed and explained. However, in your explanation you should continuously refer to the article's content and always attempt to place the theory within the context of the article. This helps the students to put theory into context: knowledge is conveyed while comprehension is supported and application is shown. Throughout your explanation, you should gradually answer the questions that were posed at the beginning of the lecture. This allows students to understand how theory can be applied to address a specific issue.

At the end of the lecture, you should summarise the main issues developed in the lecture and you should show the case again to the students. This helps them to fix basic concepts in their mind and, more importantly, students can

develop a first understanding of how analysis can be carried out. The delivery of the lecture through the use of the case study generally helps students to develop the 'lower' skill levels of knowledge, comprehension and application. The development of the 'higher'-order skills of analysis, synthesis and evaluation is then carried out through the seminar activities. However, before proceeding with an analysis of seminar activities, an example can help illustrate how the approach is used in the lecture of a second-year economics module.

Example: using newsclips in the lecture

Business Economics is a second-year module that deals with the economics of business organisation, market structure and strategic behaviour. Students are introduced to an economic analysis of issues such as the horizontal and vertical boundaries of the firm, strategic interaction in oligopolistic markets and competitive advantage. Within the analysis of the vertical boundaries of the firm, one of the topics dealt with in the module is the hold-up problem. Figure 1 presents the article that was used in the lecture.

The article is shown at the beginning of the lecture and the main 'elements' characterising the business transaction are highlighted: bilateral bargaining, contractual negotiation, asset specificity, transaction costs. In essence, these are the core factors comprising up the hold-up problem. After reading the article, the

following questions are posed to the students:

The largest order ever taken to lengthen a luxury liner was revoked yesterday after the Italian owners of the *Costa Classica* pulled out of a deal, leaving 26,000 tonnes of steel (worth £51m) beached on the docks of the Mersey. The Cammel Laird shipyard ... was told by Italian cruise operator Costa Crociere that it had postponed delivery of the shipbecause the work was behind schedule ... union leaders and local MPs began a series ofcrisis meetings late on Thursday to salvage the contract to build and fit a 45-metre extension to the 56,000 tons *Costa Classica*, cutting it in half and inserting the new section in the middle... The Italian shipowner had applied for arbitration to find out whether they could postpone or even terminate the contract, arguing that the work was substantially behind schedule and efforts to resolve the dispute commercially had failed...' (*Guardian*, 25 November 2000)

Figure 1 Article introducing the case

How many parties are involved in this transaction?

How can Costa Crociere back off if there is a legally binding contract regulating the business transaction?

Can Cammel Laird shipyard sell the ship-extension to somebody else?

What do you understand from the phrase 'efforts to resolve the dispute commercially had failed'?

The lecture then develops around a detailed account of hold-up problem theory by continuously referring to the issues identified at the beginning of the lecture and to the article. At the end of the lecture, the main issues are summarised, the article is shown again and the link between theory and the case is demonstrated.

Using the newspaper in seminars

Lectures are usually complemented by seminars or tutorials that take place the week after the lecture. This subsection assumes that students are given a set of problems and tasks to prepare beforehand and suggests how seminar activities could be structured.

First, ask the students to solve simple abstract numerical problems whose solution requires the application of basic knowledge (i.e. formulae, expressions, etc.) acquired during the lecture and through the reading of the assigned material. It is helpful in this case to design your own problems rather than to use problems

taken from textbooks (an example is provided at the end of this subsection). In this way you have better control of the gradual development of cognitive skills in students.

These problems could then be followed by a set of more complex problems in which students have to show an ability to analyse a specific economic situation or business decision and to produce a solution. These problems are specifically aimed at developing analytical skills, requiring students to break down information into simple components, establish links and produce a solution. In many cases it is possible to combine application and analysis in one single problem. A very simple example could be a problem that gives information about the fixed and variable costs of production of two alternative technologies and the output the firm expects to produce. The students can then be asked to set up the total and average cost functions. This task would require an ability to apply knowledge. The problem can then continue by asking which technology the firm should employ in production. This task requires students to use the results computed in the earlier parts of the problem to produce a solution by suggesting the most efficient technology.

The seminar could conclude with the investigation of a case study. It is suggested that you use a case studies newsclip drawn from leading business newspapers and magazine. The newsclip can be longer than that used in the lecture, even if brief and compact articles should be preferred. Long articles (usually more than 500 words long) can contain too much information that can make the students' analysis difficult and put them off the case. Moreover, time constraints often make it unfeasible to deal with long and complex cases. The investigation of the case study aims to complete the educational taxonomy by inducing students to engage in the synthesis and evaluation of more complex information. Each case study should be accompanied by a set of questions that help students focus their attention on the issues that are relevant to the topic under discussion. It is important to include these questions because, particularly in the early stages of the module, students do not have a clear ability to distinguish

important from peripheral information. By attending the lecture and experiencing the approach to case study analysis in the classroom, students should develop some understanding of how to deal with the article. However, in many cases their approach will still be rough and lack the necessary focus.

With appropriate guidance and direction, the case study helps students to develop an ability to break down complex information into simple components: analysis is fostered. These simple components can then be linked together and cross-referenced to interpret the actions of economic agents and

the strategies of businesses: synthesis is stimulated. This new information is then used critically to evaluate the business strategy against alternative strategies or some set objective: evaluation is triggered.

In the early part of the module, the students will find it difficult to approach case study discussion in a structured and rational way. Your role is to coach the discussion and guide the student through a logical and informative investigation. As students develop a better understanding of how to approach case study analysis, your role in the discussion will reduce and you will be required to intervene much less frequently. In later stages of the module, you can start supplying case studies that are not complemented by any question so that students have to show their analytical skills without the guidance of pre-set boundaries. Indeed, the students' ability to engage in the case analysis without the 'guidelines' provided by the questions will reveal their actual development of higher-order skills.

Students' preparation is important but not necessary. It is important and desirable because it will generate a speedy and livelier discussion of the case. It is not necessary because the length of the case usually allows a quick reading of the article and an almost immediate ability to engage in the discussion. At the end of each seminar, you can distribute additional case studies for students to analyse and provide a short written report. This would allow students to practise and to strengthen their skills. As discussed below, this additional activity could be managed with the help of a Virtual Learning Environment.

Students engage in each element of Bloom's taxonomy through the range of activities in the case study. The development of the lower skills of knowledge, comprehension and application that started with the lecture is then complemented by the seminar activities that are specifically designed to push the students towards the higher skills of analysis, synthesis and application. This structured approach to learning, with the case study method at its centre, can be an effective method for developing higher-order skills in students. An example of case studies in seminar activities is given below. The assessment is the final part of the learning process. The next subsection explains how case studies can be used in various assessment methods to test the students' cognitive skills.

Example: structuring seminar activities

The seminar activities that complement the hold-up lecture, discussed in the previous example, include first a numerical problem aimed at developing comprehension and application and at stimulating analysis. The problem in Figure 2 has been used in the past.

You are the owner of Engines Ltd, a company that specialises in the production of engines for motorbikes. You are approached by the managers of Aprilia, who are planning to produce a new motorbike that meets new higher government environment standards.

They require you to produce a new engine whose emissions must be below the limits imposed by recently introduced anti-pollution legislation. After many discussions and project analysis, you work out that the production of the new engine will require an investment of I = £4~000~000 and that the average variable cost of production will be C = £200. After discussion with the Aprilia managers you agree to supply Q = 50~000 engines at a price of $P^*=£400$ each. The managers of Engines Ltd know that by signing the contract with Aprilia they commit themselves to the production of a highly specialised product that they will only be able to sell to other motorbike manufacturers at a lower price of $P_m = £250$. Eventually the contract is signed and the investment is carried out.

- 1. What is the rent that Engine Ltd expects to make?
- 2. What is the value of the relationship-specific investment?
- 3. What is the quasi-rent?
- 4. Will Aprilia have incentives to renegotiate the contract once Engines Ltd has carried out the investment? Will the 'hold-up problem' emerge? Briefly explain.
- 5. Assuming that the managers of Engines Ltd are rational agents, would they have signed the contract with Aprilia in the first place and would they have carried out the investment? Briefly explain.

Figure 2 Hold-up problem: a numerical example

The exercise is structured in such a way as to require the students to compute, step by step, the values of the main determinants of the hold-up problem. Thus, once questions 1–3 are solved, the student has all the necessary elements to understand whether the hold-up problem will emerge or not. When the problem is organised in this way, the student is helped to approach it in a structured and logic manner. A problem that included only questions 4 and 5 would require the student to do much more background thinking. This can be problematic, particularly in the early stages of the module, if the student has not fully developed an ability to use elementary information to deal with complex issues.

The seminar then continues with the analysis of two related short case study newsclips. The first article (Figure 3) describes a dispute between a British low-cost airline and the owners of the airport from which the airline mainly operates. The article is actually a quotation drawn from the airline's website (http://www.easviet.com/en/).

The students were given some basic background information on how the airline industry operates and then were asked to identify within this particular case the main determinants of the hold-up problem. This task helps students develop a rational and structured approach to the analysis of information and the synthesis of relevant knowledge. The following are examples of questions asked in the seminar:

easyJet is a new airline. Explain the process that led it to choose Luton as its main hub.

What types of investment did easyJet carry out at Luton Airport?

Why is Luton Airport in a strong negotiating position with easyJet? Given the contractual dispute, why does easyJet not change hub?

Once the students were able to provide an informative and logical analysis of the case study, they were asked to provide an evaluation of the business dispute by suggesting, in particular, the strategies available to the airline. The main aim of this task is to reinforce in the students a clear understanding of the core element

of the hold-up problem (i.e. asset specificity) and to evaluate alternative courses of action for a solution of the dispute. The students would first be asked to express their own thoughts and then they would be shown Figure 4, which reports the evolution of the dispute between the two business partners.

The article shows the short- and long-run strategies chosen by the airline. While in the short run it had to give into the airport's requests, the long-run response is diversification and less asset specificity. By the end of the seminar, the students should have developed an ability to investigate similar cases, identify the presence of the hold-up problem and suggest solutions.

Assessment through the use of the news

Newspaper articles can also be used in assessment. Here we discuss how they can be used in examinations, coursework and presentations. Other assessment strategies can be considered, but we focus on these because of their widespread use.

Examination

If students are assessed by examination, we suggest structuring the paper in four sequential sections aimed at assessing the development of cognitive skills. The higher-order cognitive abilities receive a greater weighting in the mark scheme. The first section should require students to answer short essay-type questions aimed at assessing their level of knowledge and comprehension. The second section should contain some abstract problems whose solution reveals the students' ability to apply theory to practice. Questions aimed at testing the students' ability to analyse alternative policies or strategies within the context of a fictional problem should feature in the third section. The case study should be included in the fourth section and students should be asked to deal with a set of questions aimed at testing their ability to synthesise and evaluate knowledge. A pass mark should be awarded to students who complete satisfactorily at least the first two sections and who, therefore, show at least some basic knowledge and comprehension. A first-class mark is awarded only upon a satisfactory completion of all four sections.

There are many advantages in structuring the exam paper in such a way. It would represent the 'natural conclusion' to a module whose activities are structured around the principles of the gradual development of cognitive skills and the use of case studies. It offers transparency for both students and lecturers, since the ability to deal with the various sections reveals the students' actual level of knowledge. It also clarifies to students the amount of effort required to achieve desired results. Figure 5, from the exam paper for the first-year course Introduction to Macroeconomics, reflects this educational taxonomy.

Coursework

Students assessed by coursework should be given a case study newsclip and should be required to provide a detailed account of the events described in the article by resorting to economic theory. The analysis should break up the article into simple components. Relationships between economic agents, actions and outcomes should be established, and an evaluation of the problem should be provided.

It would be helpful to accompany the case study with specific questions that determine the boundaries within which students need to work. The questions should be similar to those used for the discussion of newsclips in seminars. In particular, it is important to set questions aimed at assessing the students' development of cognitive skills. In this respect, a first question could, for example, simply ask the student to describe the economic theory that can help investigate the case study. The answer to this question would simply reflect the student's level of knowledge and comprehension. The student can then be asked to provide an analysis of the article and to show how the theory applies to the specific case. Application and analysis would be tested. Further questions can ask the student to summarise the most important elements of the events described in the article and to provide an evaluation of the economic situation and suggestions for future actions. The students' ability to deal with these questions would reveal their actual level of skill development and would consequently determine the grade they would be rewarded with.

Presentation

Assessing students by presentation is not only an effective way of testing their level of understanding, but also helps them develop other transferable skills such as the ability to communicate to a particular audience, time management and organisational skills. The presentation might require the student to act, for example, as a business news reporter who has to analyse, present and evaluate a piece of economic news for a wider general audience. In this respect, the reports presented by the economics correspondents in programmes such as the BBC's Newsnight provide an appropriate model. The student should be asked to provide a summary of the news, identify the main emerging issues and provide a critical evaluation of the implications for various agents in the economy.

What makes a good newsclip?

There are some basic guidelines that you can follow in the search for the 'ideal' newsclip. The discussion so far has hinted at some of the properties of a good newsclip. The following is a list of attributes that are desirable in the articles you intend to use.

Source. The case study should be drawn from leading business newspapers and magazines or the financial page of good newspapers. This guarantees the quality of the articles and the detailed treatment of the news. Moreover, it is also likely that any development in the case will be followed in future articles. In turn, this helps to accumulate more information that can eventually lead to the creation of an in-depth and more elaborated case study.

Freshness. Fresh news is good news! An event that has recently been reported in the news and that is at the centre of general attention can be helpful in motivating students and in stimulating them to follow day-to-day developments.

Pedagogical value. It is important that the article has enough 'content' to address the pedagogical values that the lecture intends to address.

Length. Articles used in the lecture should not be too long, otherwise students will quickly lose track of the main issue and will lose concentration. The article used in the lecture should not be longer than one overhead transparency,

while the suggested maximum length for the article used in the seminar is 500 words. Even if a focused newsclip is used, it is important that the original article is not too long, otherwise it becomes difficult to 'tailor' the article for the classroom analysis. The length of the article is less important for articles used in seminars. However, it is good practice to avoid long articles, particularly in the early stages of the module, since this can frighten students and deter them from engaging in the analysis.

Terminology. It is important that the article contains some of the technical terminology that characterises the theory developed in class. This makes students aware of the fact that the concepts that they are taught are not abstract and that these terms need to become part of their vocabulary if they intend to develop an ability to deal with economic news.

Decision making. A good article should contain an element of decision making, where the economic agents involved in the case have to make or have made a decision that needs to be evaluated and analysed. This helps students to identify themselves with these decision-makers and evaluate in a rational and logic way the best course of action to take.

Using Virtual Learning Environments

The use of a Virtual Learning Environment can be an effective support of case teaching.

Distribution of material. A dedicated website allows you to post relevant cases for class discussion as soon as they become available.

Links. Links to the websites of business newspapers and magazines allow students to explore news by themselves. You can stimulate such an exploration by asking students to report any new article that they might think related to some of the issues discussed in class.

Virtual seminars. Students can be given articles to analyse by themselves and they can post their investigation for you to check and mark. In this way the rigid lecture–seminar structure is removed and students can engage with the lecturer in a more flexible way that suits their personal commitments. Similarly,

you are free to organise the interaction with students when it is more convenient for you.

Bulletin board. The communication facilities in a Virtual Learning Environment allow a greater interaction among students and facilitate the 'virtual' discussion of cases. You can stimulate the discussion by posting a case and by making some comments on the strategy or policy described in the case. You can then ask the students to discuss the case and your comments. You should follow the development of the discussion and whenever interesting issues are raised you can intervene to steer the discussion towards the analysis of relevant aspects. When you think that the discussion has exhausted the investigation of all possible leads, you should intervene by providing a short structured summary and a closure of the discussion.

The costs of teaching with newsclips

There are some inevitable costs associated with the use of newsclips:

Search time. You need to dedicate some time to the search and editing of newspaper articles. However, many leading business newspapers and magazines are available on the internet. Their websites have search facilities that allow you to retrieve articles on the basis of keyword searches. This greatly reduces the search time. Bredon (1999) suggests other ways through which the internet can be used to generate newsclips.

Teaching time. The presentation and discussion of newsclips during the lecture is bound to reduce the time available for the analysis of formal theory. Thus, you will have to restructure your lecture and to decide how to accommodate the discussion of theory within the shorter time available.

Teamwork. Teaching with newsclips in a module where you share seminar classes with other tutors requires that your teaching team be fully committed to this teaching method. This implies that they share the same approach, enthusiasm and commitment in the discussion of the allocated cases. You will have to make sure that they will approach the case discussion in similar ways – the supply of guidelines and teaching notes can help the co-ordination activity.

Case method teaching

While newsclips can easily be accommodated into the standard lecture–seminar structure, the use of longer and more comprehensive case studies requires some adjustments in the organisation of classroom activities.

Lectures versus case teaching

Teaching a case is very much an exercise in leadership: engaging student participation in the collective exploration of a problem and the effort to reach a joint resolution. In a traditional lecture, you analyse course material and convey your interpretation of it to the class. In a case discussion, the students analyse the material themselves and your function is to guide and facilitate their work: frame the task, focus the enquiry, stimulate interaction, probe thinking, set direction, register progress and bring closure. The different interaction between the instructor, students and course material in lecture and in case discussion is described by Boehrer.

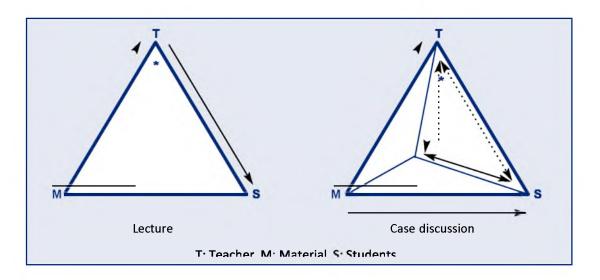


Figure 6 Interaction in lectures and case teaching

The teacher stands between the material and the students in lecture. In case discussion, the students meet the material more directly, and they interact with each other as well. Your role in teaching a case is to manage those encounters towards purposeful ends and, as the dotted lines suggest, to learn from them as

well, about the students and the case. While intellectual and procedural authority (*) belongs to the teacher in lecture, teacher and students share it in case discussion. Both determine what is learned, and students, as well as teachers, can raise questions. With case discussion the exercise is more challenging and interesting. However, the success of the discussion is critically dependent upon a number of factors that need to be carefully considered when planning the introduction of the case method. The remainder of this section discusses these factors.

Placement

The first task in teaching a case is to place it purposefully within the framework of a module. It is also important to keep in mind that one case will often fit into several modules. Having assigned the case to a module segment, you need to determine where it fits into the sequence of related classes and materials, particularly those that concern theory. The most obvious sequence is to present the theory first, then ask your students to apply it to the case, but cases can contribute to the learning of theory in alternative ways. Pedagogical issues can guide the decision concerning the placement of the case studies.. In this respect, you can consider two approaches that are not necessarily exclusive.

Motivating students to learn theory

In the first approach, the case is used to motivate students to learn theory. This can be an extremely successful technique, but it requires careful attention to the timing, selection and

teaching of the cases. This application of the case method tends to be more difficult than the use of cases as applications. However, it is especially rewarding, particularly

since it increases student engagement in the lectures on theory that follow.

To be used as motivating devices, cases should be introduced before the students have heard lectures on the relevant aspect of theory. At first, the students will find this approach more difficult, even if engaging. Thus, it is important to reassure them that you are aware that they do not have the theoretical tools

necessary to complete the analysis of the case. Take special care to allow them to explore all possible analytical methods without

imposing a particular structure. The goal is to allow them to come to the conclusion that they need some analytical tools, and this will happen only if they are given the opportunity to think the problem through on their own.

Make sure that the case you select raises interesting and relevant questions, without undue complexity. Some quantitative data should be included, but you should be careful to avoid overwhelming students with too much information. Select decision-forcing cases where the outcome of the case is not indicated and challenge students to determine what the best course of action would be. This type of case works much better than those with a described outcome.

You should steer the class discussion towards the generation of a list of questions that need to be answered before the problem posed in the case can be solved. This is a better approach than to present the students with a menu of possible solution choices. In this way you stimulate the development of analytical skills in students: break up the problem into simple elements, synthesise them to create a new entity and evaluate possible courses of action. The questions raised in the discussion should be of a type that can be answered by the application of economic theory. Students will tend to pose these questions in terms that are specific to the case. You should gently intervene and guide them to rephrase them in more general terms.

You should end the case discussion with a set of questions that need answers. They will be provided progressively in the lectures that follow the case discussion. In the subsequent lectures, you should restate the questions at the beginning of each lecture to remind students of what they are trying to understand and continue to make the connection between the case and the theory. This use of the case method motivates students to learn theory, primarily because they wish to understand the case and evaluate the arguments presented in it.

The case as an application of theory

The second approach to placement is to use the case as an application of theory, providing students with an opportunity to 'do' economics and to apply acquired knowledge in real-world contexts. This approach to case study teaching fulfils other pedagogical goals by inducing students to apply theory, use evidence and recognise the legitimate range of

application of economic analysis. In the cognitive skills ladder, the approach helps to develop the higher-order skills of analysis, synthesis and evaluation.

You can structure the learning activities by choosing between two alternative approaches. One option is to introduce a case after each lecture. One or more seminars after the lecture are then dedicated to the analysis of the chosen case. A second option is to teach a series of cases after the completion of a series lectures on a theme. In this instance, the traditional weekly lecture—seminar structure is replaced by a series of lectures followed by a set of case discussions.

This second method is more demanding for students, since it forces them to do more work in figuring out which theory to apply in which case. In this respect it helps to address the pedagogical goal of identifying the relevant theories to apply in economic analysis. The major drawback of such an approach is that it produces a long series of lecture classes uninterrupted by the change of pace provided by cases. This dilemma can be dealt with by teaching some short cases during the part of the class period throughout the lecture sequence. The short cases can be used to reinforce specific theoretical concepts. At the same time, students' interest is kept alive since application of abstract knowledge to real cases is shown.

You could then teach two or three broad and more complex cases after all the lectures on the subject have been completed. The choice of how many cases to explore is yours and you should base it on factors such as students' interest, the availability of cases and the time required to present theory.

Structuring the case discussion

Case discussions depend upon the active and effective participation of students. Students must get involved and take the prime responsibility for their learning. In this respect there are various issues that students and lecturers need to consider in order to make a success of the case study approach. This section discusses five issues that are pivotal to this success: the relationship between the student and the lecturer; the leading questions that will direct the case study; preparation for the case study by teacher and students; the procedure for the case study; and closure.

The relationship between the student and the lecturer

The relationship between the student and the lecturer is vital to the operation of the case class. Both parties play an important role in making the case method successful, and both the students and the lecturer have duties and responsibilities. To show your commitment to students and to induce students to participate actively in the exercise, you can make an explicit contract with the students at the beginning of the module (see Shapiro, 1984).

The contract will describe how the teacher and students will be expected to behave with dedication, responsibilities, integrity and a commitment to excellence. Students should commit themselves to the '4 Ps' of the student involvement in case discussion:

Preparation. If the student does not read and analyse the case, and then formulate an action plan, the case discussion will mean little.

Presence. If the student is not present, she or he cannot learn and, more important, cannot add her or his unique thoughts and insight to the group discussion.

Promptness. Students who enter the classroom late disrupt the discussion.

Participation. Each student's learning is best facilitated by regular

participation.

The students will, over time, grow to understand the importance of these four elements, but it is important that they are stressed early in the module. Your contractual responsibilities might typically include:

careful and complete preparation for the classroom experience; concern and devotion to the students in all dealings; striving to make the course a satisfying development experience.

In general, the more you do, the more the students will do. By showing your commitment to the students, by being well prepared and by showing concern for the students, you will be able to extract a similar level of commitment on the part of the students. Nothing creates student commitment to preparation as much as having the instructor quote case facts, such as numbers, from memory in the first class. Students will generally prepare up to, but not beyond, the standards of preparation shown by the instructor.

Leading questions that will direct the case study

The central task in teaching a case is asking questions, to guide students' preparation, to guide discussion and to facilitate students' participation. They are your fundamental means of mediating your students' encounter with the case and managing their interaction. In planning case teaching, it is important to identify central aspects of the case and to formulate key questions that will direct students' investigation.

A case discussion requires just a few major discussion questions. Class sessions seldom afford time for more than three to five. Typically, they encompass defining the problem, selecting among action alternatives and reflecting more broadly on the situation. A typical sequence of questions would invite observation, analysis, prescription and then evaluation. Questions such as 'what stands out?', 'how does it fit together?', 'what should be done?' and 'what does it all mean?' help students to focus on their main objective and set the boundaries

within which the discussion should be conducted.

Preparation for the case study by teacher and students

The foundation of good case discussion is preparation – the students' as well as your own (Hitchner, 1977; Zimmerman, 1985; Gomez-Ibañez, 1986; Lundberg, 1993). The contract that you agree with the students at the beginning of the module should emphasise the importance of discussion learning and clarify your view of the connection between their participation and their learning. You can use three common tactics for stimulating students' preparation:

Study question. You can assign study questions to guide students' reading of the case with the aim of a) getting them to organise the information in the case for themselves, b) focusing on key discussion issues and c) beginning the analysis of those issues.

Encourage conversation. You can encourage preliminary conversation of the case among students by organising study groups of five or six students or simply suggesting that students meet informally to talk about the case before class. Group work increases the incentives for students to prepare individually and enables them to pool information and try out ideas. It also helps to build confidence for participating in class discussion.

Written assignment. You can also ask the students to prepare a brief written assignment. The thinking required by a written piece of work usually results in a deeper discussion. You could, for example, ask the students to provide some tentative conclusions, as in a one-page memo from a policy adviser or a short economic report. You can then decide to collect this written assignment and make it part of the overall assessment, or simply use it as a means of giving feedback to the students. Writing encourages thinking and reflection.

As part of your preparation for the case discussion you should consider the following:

Structured questions. You could formulate questions to foster discussion

and guide the students towards a full exploration of the case. You also need to master the information in the case.

Anticipate students' reactions. List key facts and issues, outline the situation, summarise different actors' perspectives and consider alternative analyses of the problem as you prepare to react effectively to what your students say.

Organise the discussion. Plan how you will display the students' analysis on the white boards and arrange the room, if you can, to enable them to see and talk directly to each other. Think in advance whether you want to stage any role-play during the discussion. Plan how you might open the discussion, which students you might ask particular questions and what transition you can make from one question to the next.

Example: teaching trade policy with the case method

This example is drawn from an article by Velenchik (1995) and shows how the case method is used at the beginning of a trade policy course. The course starts with a case discussion of a several-page transcript of the congressional testimony of the president of the National Association of Manufacturers of Scissors and Shears with regard to a proposed reduction in tariffs pursuant to the Trade Expansion Act of 1962. He argues that the tariff must be maintained, and his testimony in support of this belief includes both quantitative and qualitative data, as well as several attempts at analysis of the situation in the industry, not all of which are correct. He makes statements about the competition from German and Japanese industries, the employment consequences of tariff removal, and the importance of scissors and shears to the domestic economy. The case provides students with the opportunity both to evaluate the veracity of the testimony and to consider how they would go about deciding whether to maintain the tariff.

The students were given the case before the class discussion and they were encouraged to prepare some written analysis of it. These reports were not marked but students could receive informal feedback from the lecturer on request.

In the course of the analysis, students discover that their decision depends on the answers to some specific questions requiring knowledge and tools they do not yet possess. By the end of the class, students have produced a list of questions that usually include the following:

What determines a country's trade pattern?

Is free trade good?

Who gains and who loses from trade?

How do tariffs affect these gains and losses?

What are the efficiency and equity trade-offs in making trade policy?

However, students do not usually generate these questions in this form. The class usually begins with a question like 'Why is the US scissors industry less and less able to compete with Japan and Germany?' and from there, with some gentle prodding on the lecturer's part, develop the more general form in the first question above. The case motivates students to learn theory, primarily because they wish to understand the case and evaluate the arguments presented in it. After the case, the lecturer gives a series of lectures on the basics of trade theory and the theory of commercial policy, making frequent references to the case and to the questions the students raised.

Procedure for the case study

The process of case discussion needs to be carefully structured and managed (Shapiro, 1984; Boehrer, 1995).

You need to provide the discussion with context and direction, draw your students into the case situation, keep their comments focused on the current question, help them develop their ideas, encourage their efforts and challenge their thinking, pull the strands of conversation together, and bring the whole exercise to some sort of conclusion.

Boehrer, 1995, p. 6

In managing the discussion process, you should consider the following issues:

Introduction. It is a good idea to start framing the discussion with a few remarks that tie the case into the module and set an overall direction.

Role-play. At the beginning of the session you can ask students to put themselves in the position of one or more of the economic agents involved in the case. Much of the power of the case to engage student thinking and generate learning through discussions lies in its being a real story that comes to life when students inhabit or take ownership of the situation and face the problem as if it were their own. You can decide to assign students to specific roles before class, but it can also help if you make them act spontaneously.

Generate participation. Once the first question has been posed, it is your task to generate participation. You can use various techniques to stimulate discussion. You can invite a couple of students to open the discussion and give them time to think while you make your opening remarks. When they have commented, you can open the conversation to the rest of the class. Well-prepared students will volunteer while others will need to be called upon. Try not to surprise the students: make advanced eye contact; call them by name and ask a question that they can decline. You should spread participation around the room and be selective.

Active listening. Your role as a listener in the discussion is a critical element in establishing the students' ownership of the discussion. You should limit your own comments during the discussion and you should be sure to listen hard and carefully to each comment. Your listening should be active insofar as it encourages elaboration, confirms your understanding and asks for evidence or illustration from the case. It is often necessary to act as interpreter to make what one student says clear or accessible to the rest of the class. You may also have to ask for the relevance of a comment, or remind the group what the current question is, in order to keep focus. You may want to probe a student's reasoning or assumptions, or challenge the thinking you hear. In order to encourage students to participate and to voice their ideas, you need to make sure that their interventions are respected and protected. Protection does not mean that standards

are low and any idea is accepted and embraced. It does mean that such a comment is not ridiculed but is subject to positive, critical review, preferably by other students' comments.

Use of the white board. You should record your students' contribution on the board. This will help them to track the discussion and help you to reflect their thinking. The board can also be helpful in occasionally summarising and assessing the students' progression. Use the board to list and prioritise topics and to compare and contrast contributions. The board might also be used for flow diagrams and tables that list advantages and disadvantages or arguments for and against a proposal. It is important for you to remember that the board provides students with important feedback by setting each contribution in context and by providing a critical review of the significance of comments.

Keep to the teaching plan. Keeping your teaching plan in mind will alert you to openings to subsidiary issues and the next major question. By planning your questions in advance, you make a smooth transition between issues more likely. When an opening emerges from the discussion, you should decide how to proceed. If the previous issue has been well explored, you can briefly summarise it and continue the discussion of the new opening. Taking an opening when it comes helps to keep the discussion moving. On the other hand, if the previous issue has not been fully explored, you can acknowledge the opening and reserve it as the next step in the discussion after the conclusion of the present issue. When a spontaneous issue emerges, you can consider adjusting your teaching plan if you regard it as an important development in the discussion. Often some of the best discussions take their directions from student questions.

Closure

It is important that at the end of the discussion you provide a structured closure. To be satisfying, the exercise requires some sense of completion, even if time runs short. One class seldom exhausts the possibilities of a good case. However, irrespective of the state of the discussion, you should reserve some minutes to end it.

The notes on the board can represent a starting point for your summary. You must be careful not to invalidate your students' work by presenting a solution to the case. Though good cases concern problems that have no single correct answer, some students feel 'lost' if they do not get a clear-cut answer to a problem. It is your task to make them understand that the most important aspect of the whole exercise is their ability to provide a structured approach to the problem. Whether the analysis leads them to one solution or another simply helps them understand how many real-world outcomes are determined by circumstances and other external factors.

A good summary of the discussion should also involve the students. If the discussion itself has generated new questions, it will be worthwhile to formulate them as an invitation to continued exploration. They may help you tie the case into upcoming classes. In general, however you end the class, a good sign of a successful case discussion is if your students keep talking about the case after its end.

What makes a good case?

Once you have decided to adopt the case method in your teaching, you need to find the cases to use in your classes. You have two options. You can use 'ready-made' cases supplied in textbooks or by academic institutions.

Alternatively, you can decide to create your own case studies. As mentioned above, you can use a gradual approach and take newspaper articles as your starting point. Contacts with members of the business community, consultancies and research work in external agencies can constitute other sources of inspiration. Robyn (1986) discusses the core elements of a good case, and some guidelines to take into consideration when developing a case are summarised below:

Pedagogical utility. The most important question you should ask yourself is: what teaching function will the case serve? What pedagogic issues will the case raise? Are those issues that cannot be raised equally well or better by an existing case? The rule of thumb for judging the pedagogical value of a potential case is:

'Every case needs a theory'. The corollary to this rule is that cases should not be thought of in isolation but rather as part of a module or course sequence.

Conflict provoking. Controversy is the essence of a good case discussion: it engages the students; it forces them to analyse and defend their position; and it demonstrates to them that, while there are generally no right answers, there are certain questions that it is essential to ask. Most cases are fundamentally about something controversial: a policy over which people disagree; a managerial decision that involves difficult trade-offs; an ethically questionable business decision. In preparing your case, you can ask yourself the following question: 'Is this an issue about which reasonable people could disagree?'

Decision forcing. Generally a case works better if it leaves decisions unresolved. That is, it is helpful if the case presents a choice or decision that confronts a manager or analyst without revealing what the protagonist did and the consequences of that action. A case that forces students to make a decision will prove more effective at getting them to take the first-person perspective rather than looking on from the outside.

Generality. A measure of a good case is its generalisation to some larger class of economic or analytical problems. Usually, if a case is interesting because it is unique, it is probably not a very useful case pedagogically.

Brevity. Cases that are too long and that contain too many facts tend to keep the discussion grounded in particulars. Thus, brevity is generally desirable.

Quantitative information. The cases should contain quantitative information presented in a variety of forms, including tables, charts and graphs. Ideally, some of this information would be irrelevant, some would need additional manipulation in order to be useful and all would require significant interpretation beyond that provided in the text of the case.

Institutional and historical knowledge. While the analysis of the case should require students to use theory learned outside the context of the case, it is important to select cases that do not require students to posses a large stock of institutional or historical knowledge. Usually, students have different

backgrounds and cases that require previous knowledge tend to disadvantage students whose backgrounds are less comprehensive. However, if you decide to use such a case, make sure that you provide students with an accompanying handout, including definitions or some historical information if the case is incomplete.

Assessment within the case method approach

The case method does not provide any prescription about the strategy to use in assessment. For example, Carlson and Schodt (1995) report assessing their students through exam (70 per cent) and homework and case discussion (30 per cent). However, alternative strategies are feasible. In general, the issues raised in subsection 2.4 hold within the case method approach. However, given the particular importance of participation and class discussion for the case method, you should consider making class attendance compulsory and awarding grades for the level of class discussion.

You might also consider group work as a viable and effective way of developing both subject- specific and transferable skills. For example, groups of students could be given separate cases to investigate. Their findings could be summarised in a written report and presented to other students, who will have an opportunity to test their colleagues. This strategy will help students to develop an ability to work with others and to present in public, and it also encourages greater discussion among students.

The costs of adopting the case method

The pedagogical value of the case method has been discussed throughout the chapter. However, you must be prepared to face the following costs if you intend to introduce the case method in your teaching.

Class control. The use of the case discussion means that you trade off considerable control over the class outcome for a dynamic, student-centred exercise. This can be problematic. By allowing students to express their ideas, the case method gives some students the impression that all ideas are equally good. It is up to you to guide the class through the process of distinguishing between good

and bad ideas. Similarly, students do not always take away from the discussion the ideas one hopes. Even if this problem is common to other teaching methods, it is particularly evident in case analysis. However, a good closure at the end of the case discussion can help reduce or eliminate such a problem.

Preparation costs. Preparing and conducting a case discussion tends to demand more energy and time than lecturing. It is still relatively difficult to find good cases in economics and instructors find they must spend time working them up themselves.

Students' preparation. Students must prepare much more than they typically do for seminars and they must also take the risk of expressing their ideas in public and being willing for these ideas to be subject to critical review.

Breadth of curriculum. Teaching cases takes time and it can lead to the elimination of some material from the curriculum that would have otherwise been presented. However, the experience from lecturers who have adopted the case method shows that while students tend to have a less thorough and detailed knowledge of models, they have a good understanding of the fundamental insights and basic mechanics of some central ideas in economic theory and are able to apply them to the analysis of policy. What they learn is not what we cover.

Colleagues' involvement. The use of the case method in big modules where the teaching is shared among more than one lecturer requires that all those involved in the teaching share the same passion and belief in the method. Sometimes it can be difficult to find such co- operation. In this respect, it can be helpful to prepare relatively detailed teaching notes that simplify the work required by colleagues and promote consistency in the teaching approach.

A Word From Very well

Case studies can be a useful research tool, but they need to be used wisely. In many cases, they are best utilized in situations where conducting an experiment would be difficult or impossible. They are helpful for looking at unique situations and allow researchers to gather a great deal of information about a specific individual or group of people.

If you have been directed to write a case study for a psychology course, be sure to check with your instructor for any specific guidelines that you are required to follow. If you are writing your case study for professional publication, be sure to check with the publisher for their specific guidelines for submitting a case study.

The aim of our project with Santander was to help the Customer Centre integrate the Behavioural Economics (BE) toolbox with its research and to demonstrate this through applied research on a topic of interest: how HORECA companies are being affected by COVID-19.

In this research, as it is the case in most customer-linked research, it is crucial to analyse and understand consumers' changing behaviours to evaluate to what extent business models are being affected. Behaviourally informed research provides an innovative way to evaluate risks and opportunities.

The BE toolbox and market research

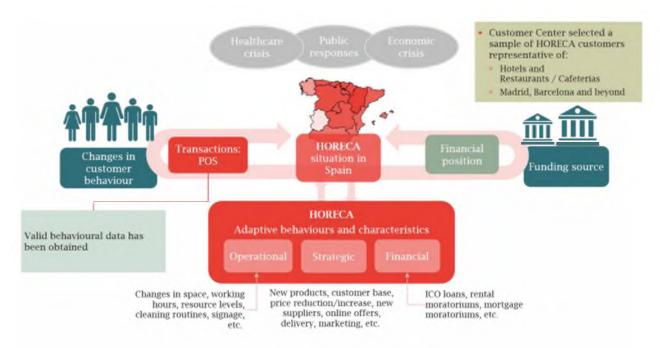
The project was split into two parts:

Providing the Customer Centre with an overview on how the BE toolbox can help to improve the research techniques used at Santander. We did this via presentations, which informed and provided suggestions to the Customer Centre.

Conducting behaviourally informed market research on HORECA companies, using Santander's Point of Sale (PoS) data & information gathered through primary research in the form of a behaviourally-informed survey. The survey helped us to understand business characteristics and adaptive behaviours and answer the question 'Do customers who adapt have a better chance of survival?'.

Specifically looking at point number two, testing the hypothesis we jointly generated with the Customer Center, we found that the use of financial levers to adapt was quite homogeneous between different clients. However, those performing relatively better, were significantly more proactive in deploying operational and strategic changes in their businesses.

Figure 1: Do customers who adapt have a better chance of survival?



Source: Frontier Economics

Integrating BE tools with customer research

Weaving BE tools and techniques, including the use of high frequency behavioural data identified through PoS, into customer research can provide solid information going forwards to help with mitigating risk and with identifying levers to support clients through challenging moments. Santander has now integrated the BE toolbox with its research and is able to continue supporting clients to a high degree.

1. Introduction to institutional theory

1. In what century did theories of institutional economics develop?

All the answers are correct.

By the seventies of the XIX century, the expansion of classical theory with a marginal approach to the work of K. Menger, M. Jevons, L. Walras and other researchers as a neoclassical theory was reflected in Marshall's "Principles of Economics".

Later, Marshall's views were improved in J. Clark's research.

In seventeenth-century Europe, it is characterized first by the classical economic teachings of W. Petty, Bouagilbert, and later by Smith and Ricardo.

2. How many parts are the basic principles of neoclassical theory?

In two parts.

In three parts.

In four parts.

In five parts.

3. The basic principles of neoclassical theory are correctly stated in the scissor answer?

The first part of the basic principles is the "old" principles of the classics, and the second part is the "new" principles of the neoclassics.

The first part of the basic principles is the "new old" principles of the classics, and the second part is the "old" principles of the neoclassics.

The "old and new" principles of the classics.

The principles of neoclassicism "old and new and future".

4. What are the "old" principles of the classics?

All the answers are correct.

There is always a balance in the market, which meets the requirements of a single Pareto (Valras-Errou-Dobre) optimum.

In the market, individuals make rational choices and individuals are not affected by external factors, their preference for a situation is stable and exogenous.

The only type of cost is production costs. At the same time, exchange costs are not taken into account.

5. What are the "new" principles of neoclassicism?

All the answers are correct.

Individuals have all the information about the transaction.

The limits of exchange are determined on the principle of decreasing profitability and based on the initial allocation of resources.

The main basis for the exchange in the market is the organization of private property of resources.

6. Who are the founders of the "old" theory of institutionalism?

Answers A and B are correct.

J.R. Commons and U. Mitchell.

J.K.Gelbreyt, R.Haylbroner, F.Perru.

T. Weblen, K. Polani and J. K. Gelbright.

7. How did T. Veblen describe "Habits" in his work "Theory of the Absolute Class" (1899)?

Habits are one of the institutions that determine the range of behavior of individuals in the market, in the political sphere, in the family.

Habits are the norm of formal rules.

Habits are the norm of informal rules.

All the answers are correct.

8. Human behavior is described by Weblen on the basis of two very ancient habits. Which of the following is correct?

He calls these habits a sense of rivalry (a desire to be first, to stand out from the crow and a sense of skill (adaptation to honest and productive work).

He calls these habits the activities of an individual who are subject to formal rules and those who are not subject to informal rules.

He calls these habits the activities of an individual who is subject to informal rules and who is not subject to formal rules.

All the answers are correct.

9. The formation of institutionalism as a theoretical direction is directly related to which theories?

Answers D and B are correct.

With neoclassical theories.

With Keynesian theories.

With classical theories.

10. According to the Russian scientist R. Nureev, what are at least the main differences between "old" institutionalism and neo-institutionalism?

At least three.

At least two.

At least a parrot.

At least five.

2. Categories of the Neo institutionalism

11. Who are the representatives of the "old" institutional school?

All the answers are correct.

U. Mitchell, Y. Schumpeter and K. Ayres.

J.K. Gelbright, F. Knight and G. Myurdal.

T. Veblen, J.R. Commons and K. Polani.

12. Who are the representatives of the "new" institutional school?

All the answers are correct

O. Williamson, R. Posner.

M.Olson, F.Hayek.

R.Kouz, Nort.

13. What is the basis of the study of neo-institutional theory?

Studies individual individuals.

Group activities in general.

Market entities.

All the answers are correct.

14. Institutionalization - what is it?

Strengthen certain rules or norms used by the majority of society members in the relationship between individuals.

Support the implementation of transactions with transaction costs.

The mechanism of management of the economic system.

Implement formal and informal rules.

15. Institutional vacuum - what is it?

This is the absence or lack of formal institutions in the institutional system capable of supporting the implementation of transactions with the lowest transaction costs due to the termination of the previous management system and the absence of a new mechanism.

Strengthen certain rules or norms used by the majority of society members in the relationship between individuals.

Support the implementation of transactions with transaction costs.

The mechanism of management of the economic system.

16. What is holism?

The interests and behaviors of individuals are explained by the description of the institutions that predetermine their interaction. That is, institutions play a primary role, while individuals play a secondary role.

Strengthen certain rules or norms used by the majority of society members in the relationship between individuals.

Support the implementation of transactions with transaction costs.

The mechanism of management of the economic system.

17. Who are the founders of the theory of property rights?

Answers A and B are correct.

G. Demsets and R. Posner.

M.Olson, F.Hayek.

R. Coase and Alchiyan.

18. Who are the founders of contract theory?

S.Peyovich and E.Furubotn.

G. Demsets and R. Posner.

- M.Olson, F.Hayek.
- R. Coase and Alchiyan.
- 19. Who are the founders of the theory of transaction costs?
- R. Coase, O. Williamson and North.
- G. Demsets and R. Posner.
- M.Olson, F.Hayek.
- S.Peyovich and E.Furubotn.
- 20. Who are the founders of the theory of economic organization (firm theory)?
 - All the answers are correct.
 - G.Demsets and S.Chung.
 - M. Jensen and U. Mikling and O. Williamson and Yu. Fam
 - M.Aoki and Alchiyan.

3. Transaction theory and evolution

- 21. Who are the founders of the theory of social choice?
- J. Buchanan and T. Tallock and M. Olson.
- G.Demsets and S.Chung.
- M.Aoki and Alchiyan.
- M. Jensen and U. Mikling.
- 22. What is the theory of social choice?

A theory that explores the different ways in which people use government institutions for their own benefit through social choice.

The theory of social behavior of the individual.

The theory of interactions between institutions and individuals.

- All the answers are correct.
- 23. Who are the founders of the theory of bureaucracy?
- K. Errow and V. Niskanen and S. Parkinson.
- G.Demsets and S.Chung.

- M.Aoki and Alchiyan.
- M. Jensen and U. Mikling.
- 24. Who are the founders of the economic theory of crime and punishment?
- G. Becker, M. Friedman, J. Stigler, M. Olson.
- M.Aoki and Alchiyan and G.Demsets and S.Chung.
- K. Errow and V. Niskanen and S. Parkinson.
- M. Jensen and U. Mikling.
- 25. Who are the founders of the economic theory of corruption?
- E. Kruger and J. Stigler.
- M.Aoki and Alchiyan.
- K. Errou and V. Niskanen.
- M. Jensen and U. Mikling.
- 26. Who are the founders of the theory of neo-institutional concept of secret and informal economy?
 - E. de Soto, E.Fayg, K.Xart, T.Shanin, F.Shnayder.
 - E. Kruger and J. Stigler and M.Aoki and Alchiyan.
 - K. Errou and V. Niskanen.
 - M. Jensen and U. Mikling.
 - 27. What is the institutional conflict?

The result of a mismatch between formal and informal rules.

The emergence of the shadow economy.

Increase in transaction costs.

The result of mutual conditioning of individuals.

28. What is institutional technology?

It is a technology associated with the introduction (import) of institutions, as well as the development (cultivation) of new institutions, the operation of which is able to reduce transaction costs and ensure economic growth.

It is a technology that results in a mismatch between formal and informal rules.

The secret economy and technology to prevent the increase in transaction costs.

Game theory technology in the prevention of mutual conditioning of individuals.

29. What is an institutional trap?

Ineffective stable norm (ineffective institution) with self-supporting nature This is an ambiguity between formal and informal rules.

Fundamentals of the regulation of the shadow economy.

Regulation of the interaction of individuals.

30. Who are the founders of neo-institutional theory in Russian economics? Answers B and D are correct.

V.M.Polterovich, V.L.Tambovtseva, E.Shastitko.

E. de Soto, E.Fayg, K.Xart, T.Shanin.

R.I.Kapelyushnikov, O.S.Sukhareva, N.Oleynik.

4. Property rights theory

31. Who are the neo-institutional founders of Russian financial science?

Answers A and B are answers.

V.M.Polterovich, V.L.Tambovtseva, E.Shastitko.

E. de Soto, E.Fayg, K.Xart, T.Shanin.

R.I.Kapelushnikov, O.S.Sukhareva, N.Oleynik.

32. Which scientists' research touches on the institutional aspects of the secret and informal enterprise in Russian science?

Answers A and B are answers

V.Radaev, L.Timofeev, Yu.Latov.

E. de Soto, E.Fayg, K.Xart, T.Shanin.

L.Kosals, Oleynik.

33. What methodology is used in the analysis of the interdependence of individuals and institutions in the institutional economy?

The methodology of methodological individualism and holism is used in the analysis of the interdependence of individuals and institutions.

Pareto methodology is use

Equilibrium methodology is use

The methodology of market relations is use

34. What are the stages of development of the institutional economy?

In two stages.

In three stages.

In four stages.

In five stages.

35. What are institutions? As described by T. Veblen.

"Institutions are the usual way of thinking in which people live by following them" or "Institutions are the result of processes that took place in the past, they adapted to the conditions of the past and, in turn, did not fully adapt to the requirements of the present."

"Institutions are social goods that many individuals use everywhere and every day and are mainly characterized by their uniqueness. Institutions simplify the exchange process. They are an integral part of the decision-making process, transforming individual decisions into positive decisions."

"Institutions - a social organization that leads to the creation of long-term and sustainable patterns of behavior through the limits of tradition, custom or law."

"Institutions are human-imposed constraints and coercive factors that make up their interactions. Together, they make up the driving force of society and the economy."

36. What are institutions? As described by E.Erdwar

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"Institutions are human-imposed constraints and coercive factors that make up their interactions. Together, they make up the driving force of society and the economy."

37. What are institutions? As described by J. Hodgson.

"Institutions - a social organization that leads to the creation of long-term and sustainable patterns of behavior through the limits of tradition, custom or law."

"Institutions are social goods that many individuals use everywhere and every day and are mainly characterized by their uniqueness. Institutions simplify the exchange process. They are an integral part of the decision-making process, transforming individual decisions into positive decisions."

"Institutions are the usual way of thinking in which people live by following them" or "Institutions are the result of processes that took place in the past, they adapted to the conditions of the past and, in turn, did not fully adapt to the requirements of the present."

"Institutions are human-imposed constraints and coercive factors that make up their interactions. Together, they make up the driving force of society and the economy."

38. What are institutions? As described by North.

"Institutions are human-imposed constraints and coercive factors that make up their interactions. Together, they make up the driving force of society and the economy."

"Institutions are social benefits that many individuals use everywhere and every day, and are largely unique. Institutions simplify the exchange process. They are an integral part of the decision-making process, turning individual decisions into positive decisions."

"Institutions - a social organization that leads to the creation of long-term and sustainable patterns of behavior through the limits of tradition, custom or law."

"Institutions are human-imposed constraints and coercive factors that make up their interactions. Together, they make up the driving force of society and the economy."

39. What is an institute?

It is a system of formal rules and informal norms that determine the relationship between members of a society. The basis of the institutions is the norms that are its components.

This is the usual way of thinking that people live by following them.

This is the result of processes that have taken place in the past, which have adapted to the conditions of the past and, in turn, have not fully adapted to the requirements of the present.

It is a social organization that leads to the creation of long-term and sustainable patterns of behavior through the restriction of tradition, custom, or legislation.

40. What is norm

Norm is a key element used in the institutional environment for individuals to make their choices.

A norm is a system of formal rules that defines a relationship.

A norm is a system of informal rules that defines a relationship.

Norm - the basis of institutions is its components.

A norm is a system of formal rules that defines a relationship.

5. Corruption and shadow economy, problems of overcoming it



How can Corruption be controlled?



- ✓ The first tool is education.
- ✓ Inculcating good values during childhood.
- ✓ Change in the system of government.
- ✓ Increasing direct contact between the government and the governed.
- Making stringent laws for punishing the corrupt and blocking every way of escape.
- ✓ Increasing transparency and paying more attention to professional accountability.



The Shadow Economy, Its Causes and Its Consequences

- CONSEQUENCES OF SHADOW ECONOMY
 - Equity consideration: some are taxed and some are not
 - 2. Effects on markets and on competition
 - 3. Effects on tax systems
 - 4. Effects on the measurement of some important economic variables (GNP, growth, tax burden, unemployment, productivity)
 - 5. Effect on the country's international interest
 - 6. Effect on economic policy when economic variables are distorted.

6. The theory of contracts

Tending to relationships can pay off for businesses too

Rose markets in Kenya demonstrate the tangible economic value of trust

Tim Hyde



Wichit S/Bigstock

It's said that all's fair in love and war – and the same holds true in international rose markets. Especially this week, there is a need to get flowers to market at just the right time, and florists go to great lengths to find suppliers around the world who can be counted on to deliver.

It's not easy, because suppliers in faraway countries who have agreed to sell roses at predetermined prices always face temptation to break their agreements and sell their roses at higher prices at auctions in Amsterdam. Or they can charge full price for wilted roses and claim they were fine when they were loaded on the plane 36 hours before.

Why are rose markets so cutthroat? Buyers and sellers are dispersed around the globe, with many suppliers in developing countries, so news of bad behavior doesn't tend to travel that fast. Roses are easily perishable too, so it can be hard to prove in a court that any particular batch of roses arrived in bad condition.

It's a market where contracts tend not to be worth much more than the paper they are printed on, and buyers usually have no recourse if they are jilted by their suppliers in the run-up to Valentine's Day. A pair of economists thought this mistrustful environment might be a good place to measure the economic value of long-term relationships.

In a study that appeared in the *American Economic Review* in 2015, authors Rocco Macchiavello and Ameet Morjaria look at rose growers in Kenya, where horticulture is a major cash crop. Rose farms there tend to be small concerns that can only survive if they earn the trust of major buyers from overseas.

"What is clear is that these flower farms really really value their reputations in international markets," said Morjaria, one of the authors of the paper, in an interview with the AEA. "They have a sense that they are small players, they really need to do their time and showcase to the world that this is a good place to do business."

Without good contract enforcement, buyers are going to be hesitant to do a lot of business with an unknown flower farmer until he proves himself. Did the deliveries come on time, in the quantities ordered? Were the flowers of good quality?

It's not as if you will be able to approach [an unknown rose supplier] and trust him and start that relationship quickly, because these relationships take time, they are not just going to blossom.

Ameet Morjaria

The authors find evidence that relationships do become more valuable over time, from the farmers' point of view. For evidence, they look at direct sales records from Kenyan rose sellers 2004-08 and match them up to prices that were prevailing at the international flower auctions in Amsterdam at the same time as each sale.

In many cases, the roses that went directly to buyers sold for less than the flowers at the auction, meaning that the rose farmers were passing up an opportunity to make more money in order to maintain trust. By comparing the auction price from the direct sales prices, they create a measure of "temptation" – how much more money could a rose farm make if it reneged on its agreement and sold its flowers in Amsterdam instead?

If a rose farm sells roses to a florist in the U.S. for \$10,000 during a high-demand period like Valentine's Day or Mother's Day when the same roses could have fetched \$25,000 at auction, that is evidence that the seller values the buyer's trust at \$15,000 or more.

Using this method, the authors calculate that at any one time, the average rose exporter in Kenya has relationships with buyers overseas worth approximately \$150,000 in total. For a typical small rose farm, these relationships might be among the most valuable things they own, and are treated as preciously as physical investments.

The authors also find that forgiveness can arise when business relationships have had time to mature. They study one particularly disruptive period in early 2008 when violence spread across parts of the country in the wake of a contested election.

This was a tragic episode that set back democratic consolidation and left dozens dead, but it was also a moderate inconvenience for flower merchants in the developed world who were counting on deliveries of flowers for sale in mid-February. Very few rose farms were directly affected by the violence, says Morjaria, but many workers were impacted and farms found themselves short-staffed during the crucial part of the season.

Who will end up without a rose on Valentine's Day?

Relative reliability for rose exporters in Kenya during post-election violence in 2008. Each point represents one buyer-seller relationship. Farms affected by violence (red points) seemed to prioritize middle-aged relationships at the expense of very new and very old relationships. The authors' hypothesis is that sellers felt their oldest relationships could better survive a one-time lapse.

Source: adapted from Figure 9 of Macchiavello & Morjaria (2015)

Sellers who were committed to delivering thousands of stems to multiple buyers knew they wouldn't be able to please everyone, so they had to make tough decisions about which buyers to alienate.

The researchers tallied up deliveries during this period and found an interesting pattern. Flower farms affected by violence seemed to favor buyers with whom they had moderate, but not long-standing, relationships (see figure above).

Apparently, the farmers were counting on their long-time partners to be more understanding, while trying to make sure their newer, more fragile relationships didn't fall apart. A relatively new business partner might just give up on a flower farm if it failed to come through during the busy season, but a buyer who has a long history with a flower farm wouldn't necessarily want to have to start over after one missed delivery during a very difficult time.

"After the violence, there was a lot of anxiety over whether the Kenyan flower industry would come back to where it was," says Morjaria, and farmers were eager to show visiting representatives from overseas that their farms had weathered the storm. Ultimately, the industry bounced back quickly and returned to previous sales volumes the next season.

This illustrates that relationships have value to buyers too – once they find sellers they trust, they want to keep ordering from them and don't want to have to hunt around for new, untested rose farmers. As Morjaria put it: "these relationships take time, they are not just going to blossom."

7. The theory of organizations

Shadow business

How many cartels exist and how important is competition policy to reining them in?

Chris Fleisher



Illustration by Chris Fleisher

Cartels operate in the shadows of global commerce.

We know they exist. We hear about them all the time in the drug trade. But collusion is forbidden in legal industries operating in much of the developed world, including the United States and European Union.

This has made it difficult for economists to study cartels, to determine just how many of them exist or how long they stick around.

A paper in the November issue of the *American Economic Journal: Microeconomics* attempts to fill in the gaps in our understanding and underscores the importance of maintaining a competitive business environment.

Cartels, because they are illegal, they are not visible to us unless someone uncovers them. There's a missing data problem here.

Otto Toivanen

"Cartels, because they are illegal, they are not visible to us unless someone uncovers them. There's a missing data problem here," co-author Otto Toivanen said in an interview with the AEA. "This was also at the heart of our research question."

Cartels were once legal in much of Europe. After World War II, many countries began to put restrictions in place, perhaps having been influenced by American ideas of antitrust policy.

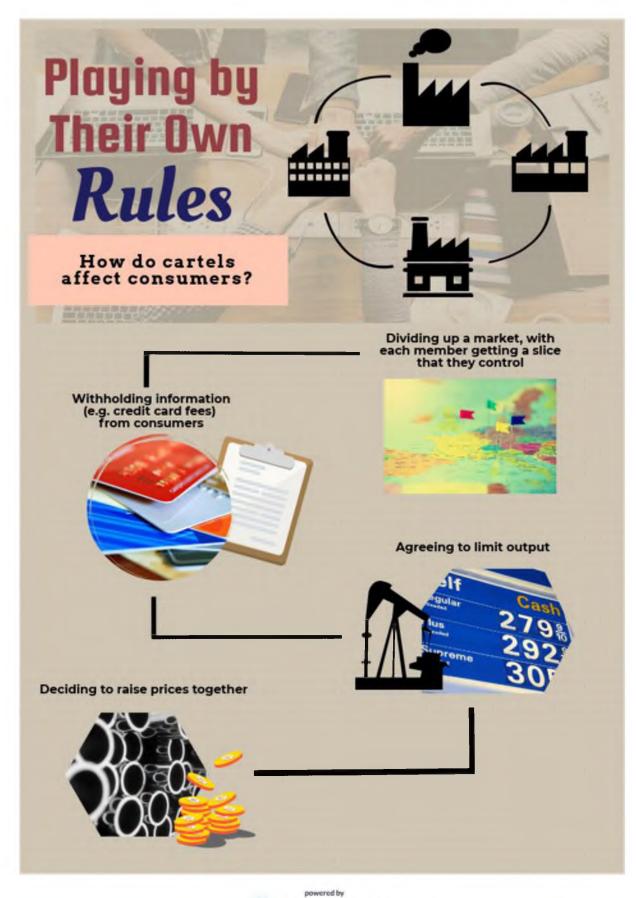
Cartels can have negative effects on consumers. Companies could collude to raise prices together or withhold information from consumers, such as hidden fees on credit card transactions. They might also limit output — as with the oil-producing cartel OPEC — in order to drive prices higher or carve up a market so that competition doesn't keep prices low.

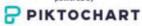
Toivanen and his co-authors Ari Hyytinen and Frode Steen hoped to provide insights into the role that competition policy plays in restricting cartels and protecting consumers.

They collected data from Finland, when cartels were legal until the 1990s, and developed a model to answer a counterfactual question: What would happen in the absence of competition policy?

The authors collected information on more than 900 cartels that registered voluntarily with Finnish authorities between 1959 and 1993. They found that cartels proliferated in the Finnish economy.

In an environment where cartels were legal, almost all manufacturing industries ended up colluding, the authors said. In any given year, there was a 20-30 percent probability that a new cartel formed. For those that already existed, there was an 80-90 percent chance that it would keep going.





At the end of the 1980s, the authors estimate that more than 90 percent of Finnish manufacturing firms were operating in some kind of cartel. Cartels were outlawed in Finland in 1992, but the reforms did not put an end to corporate collusion.

Toivanen isn't sure how many still exist today, but is fairly confident it is a significant number.

"I'm sure that percentage is lower today," he said. "But I'm worried it's not a low percentage. I'm afraid it's not single digits."

Several years ago, Finnish authorities prosecuted seven asphalt companies that they accused of running a cartel between 1994 and 2002. The companies were ordered in 2016 to pay nearly 35 million euros in damages.

But cartels are not just a Finnish problem. In 2007, the European Commission imposed a record fine of 500 million euros on 11 European power equipment firms, led by the German firm Siemens. The Commission argued that the companies had "carved-up" the European power equipment market between 1988 and 2004.

Toivanen isn't sure how best to keep this type of collusive behavior from happening. Some countries offer leniency to whistleblowers who report illegal cartels, while others threaten corporate colluders with jail time. Regardless, he says their paper highlights the need for competition policy.

"Competition policy is very important," he said.

8. Firms in institutional economics

Conspiracies against the public

The textbook description of cartels can't explain what real-world cartels do

Tim Hyde



Prices on display at a gas station in Torun, Poland, February 21, 2015. OPEC is an organization of oil-rich states that attempts to influence the global price of oil.

MagMac83/Bigstock

It's one of the most basic principles of economics: if something that people value gets more scarce, the price will go up. Some goods, like gold jewelry or aged scotch, are naturally quite scarce, if they are made from rare materials, or require some unusual expertise or long process to make. But long ago, companies realized that artificial scarcity is almost as good as the real thing.

When companies conspire to hold down output in order to raise prices (and boost profits), they form what is called a cartel. Even a relatively cheap and common good can become expensive if the people who supply it are able to keep only a small amount flowing into the market.

Rather than working full-tilt to undercut their competitors and provide customers the cheapest product, rival companies can often make a lot more money with a lot less effort if they are able to work together.

The potential for companies to give up on competition and form cartels was recognized in Adam Smith's day, and led to an array of anti-trust laws during the nineteenth century designed to combat the problem. Still, perhaps the best protection against cartels is the strong temptation for cartel members to cheat on the deal.

People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.

Adam Smith, The Wealth of Nations (1776)

This is routinely a problem for the Organization of Petroleum Exporting Countries (OPEC), one of the most widely known cartels, which exists for the purposes of keeping oil prices high. Member nations agree to production quotas at regular meetings. But if every *other* country is cutting back oil production and propping up the price, more money can be made by increasing output, stealing other country's customers, and cashing in at the high price.

If everyone does this though, prices fall, defeating the entire purpose of the cartel. How can participants deter cheating? The standard textbook economics answer is that firms sustain collusion by threatening massive retribution when someone tries to undermine the cartel.

The prospect of a huge price war that drives profits down for the cheater is the mechanism to keep cartels hanging together. In long-standing economic models of cartels, this punishment is designed to be so severe that no one ever cheats, and it will thus never need to be used.

But studies of OPEC and other present-day and historic cartels has revealed they don't operate this way in the real world. Contrary to the predictions of textbook models, cheating is apparently quite common, and often goes unpunished. A study appearing in this month's issue of the *American Economic Review* reviews this economic puzzle and offers a more nuanced type of cartel agreement that can make sense of continual cheating.

Authors B. Douglas Bernheim and Erik Madsen note several examples of cartels uncovered by prosecutors in the U.S. and Europe where cheating was apparently commonplace. In markets for products ranging from citric acid to food flavor enhancers to sugar, cartel participants discovered their partners were cheating: upping output levels or going behind each other's backs to offer customers lower prices. In each case, cheaters avoided serious punishments and got away with commitments to being more faithful to the cartel in the future.

Does this mean these cartels were ineffective, or not ever really operating as cartels at all? The latter interpretation has been embraced by defense attorneys in anti-trust proceedings.

In one high-profile prosecution of Archer Daniels Midland, a U.S. food conglomerate whose executives were caught on tape conspiring with companies from Japan and Korea to fix the price of a livestock feed additive called lysine, defense attorneys boasted about the underhanded and deceptive tactics used by ADM towards its rivals. This was presented as proof that ADM was not actually part of any cartel and was competing hard against the Japanese and Korean companies.

Thanks to copious video and audio evidence obtained by ADM executive-turned-informant Mark Whitacre, the lysine cartel is one of the best understood and most studied collusive schemes in history, and the inspiration for the 2009 movie *The Informant!* starring Matt Damon as Whitacre.

The lysine cartel: an economic roller coaster

Prices for lysine, an additive in livestock feed, 1990-96. Secret audio and video recordings of meetings between executives from American food conglomerate Archer Daniels Midland and companies from Japan and South Korea revealed ongoing attempts to fix prices in this market. Prices recorded during the approximate period of the conspiracy are highlighted. See source for more details on the timeline of the cartel as it has been reconstructed from court records.

lysine price per poundfirst in-person meetingfirst price warADM lysine plant comes onlinesecond price warFBI raidrenewed cooperation1990199119921993199419951996\$0.50\$0.60\$0.70\$0.80\$0.90\$1.00\$1.10\$1.20\$1.30\$1.40

Source: adapted from Figure 2 of de Roos (2006)

The lysine cartel certainly had its ups and downs, including breaches in trust and a renewed commitment to high prices (see figure above). Bernheim and Madsen argue that signs of competition and distrust between rivals are not necessarily incompatible with collusion.

They present an alternative model of a cartel where each participant has a "home" market where they have a natural advantage. This could happen if certain companies are better positioned in certain regions of the world or have relationships with certain major customers.

In this arrangement, each cartel member can corner their own home market but can also try to make incursions into rivals' markets as long as they don't reduce prices below a specified threshold. As long as they don't compete "too hard" in someone else's market, they won't be punished.

This allows limited competition, which can look like cheating or non-cartel behavior from an outsider perspective, within the bounds of the agreement. It provides an outlet for companies who may otherwise be tempted to completely renege, and is more sustainable because it doesn't require painful punishments for each minor instance of business stealing.

The authors don't necessarily think this is a precise model for any specific real-world cartel, but they argue it can be used to better understand the seemingly dysfunctional cartels that have been observed in recent prosecutions. It also raises the question of whether businesses have hit upon subtle forms of collusion that economists didn't previously consider.

In an interview with the AEA, Madsen suggested that this finding means policymakers and anti-trust regulators should think about collusion – and its many

possible forms – more broadly. Just because a group of companies don't seem to behaving like a classic cartel, with strict output quotas and harsh punishments for cheaters, doesn't necessarily mean they aren't participating in what Adam Smith would have called "a conspiracy against the public."

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Price Cutting and Business Stealing in Imperfect Cartels appears in the February 2017 issue of the American Economic Review.

9. Households in institutional economics

Why do mothers with medical degrees get fewer C-sections?

Physician induced demand might explain better treatment for savvy patients

Tim Hyde



An expectant mother undergoing cardiotocography. While some C-sections are planned and scheduled in advance, most are prompted by complications that arise during labor.

Bigstock

In most markets, consumers are trusted to make their own decisions. But sometimes providers – think auto mechanics or plumbers – know a lot more than the customers they are serving. Customers probably don't understand what exactly they need to buy: they just know they want their car or sink to work again.

This leaves room for sellers to convince buyers they need more services than they really do, inducing new demand to create more profits. The auto mechanic who recommends an unnecessary fuel system cleaning or the plumber who wants to replace a perfectly good water heater is taking advantage of a big information asymmetry between provider and customer.

A patient at a doctor's office or hospital is a customer too, and in many contexts physicians and hospitals can earn more money if they provide extra medical services, which can range in seriousness from an unnecessary throat culture to a questionable elective surgery. Since patients' insurance plans will tend to shoulder most of the costs anyway, patients are not likely to object when a trusted doctor in a white lab coat recommends a medical procedure.

Physician induced demand (PID) is a major concern for health economists, and unnecessary medical spending is estimated at about \$200 billion in the U.S. each year by the Institute of Medicine. This tally does not even include added patient discomfort or future health complications that can result from medically unnecessary care.

Then again, PID can be hard to detect because it can be difficult for researchers looking at treatment data after the fact to know which treatments were legitimate and which weren't really necessary. But what happens with those few patients who *aren't* any less informed than the doctors treating them? A an article appearing in this month's issue of the *American Economic Journal: Economic Policy* examines birth records from California and Texas to see if obstetricians treat patients with MDs differently from other patients in the delivery room.

In Physicians Treating Physicians: Information and Incentives in Childbirth (PDF), authors Erin Johnson and Marit Rehavi focus on the Cesarean

section or C-section, which is the most common inpatient surgery in the U.S. They analyze confidential hospital data to determine which mothers are most likely to undergo C-sections during delivery, comparing mothers who are themselves doctors to ordinary patients without medical training in an effort to detect physician induced demand.

The decision about whether to deliver a baby via C-section can be a tricky one. In a few clear-cut cases (like when the placenta is blocking the uterine opening), a C-section is clearly the right path and is usually scheduled beforehand, but these are rare: vaginal delivery is attempted about 90% of the time. If complications arise during labor, a doctor must weigh the risks of switching course and proceeding to an invasive surgery that can have complications for mother and infant alike.

In many of these situations, there is no clear medical consensus about whether a C-section is necessary and indicators of fetal distress such as from a fetal heart monitor can be inconclusive. Oftentimes, the obstetrician simply has to make a judgement call based on years of experience delivering babies. Whatever the doctor chooses, a mother in labor who doesn't have any obstetrical knowledge herself will be ill-equipped to second-guess that decision.

Medical decision making during childbirth is especially well-suited to testing for inducement ... There is a well-documented payment wedge for C-sections relative to vaginal deliveries under FFS [fee-for-service] and an information asymmetry between [obstetricians] and patients. Less-informed patients typically cannot even reduce the asymmetry by seeking an independent second opinion during labor.

Johnson & Rehavi (2016)

The authors argue that the complexity of this decision leaves an opening for physician induced demand, which might in turn help explain a long-running runup in C-section rates nationwide. They develop a model to make predictions about when and where C-section rates would be higher if some obstetricians are taking advantage of their patients' medical ignorance.

Doctors would have several reasons to prefer C-sections to natural childbirth in marginal cases: more income, more convenience in planning and scheduling, and fear of malpractice lawsuits. In the model, doctors must choose whether to recommend a C-section to each patient as labor unfolds, and they face a tradeoff between their own interests and patient dissatisfaction.

Being more aggressive about recommending C-sections will result in more earnings for hospitals and doctors over time, less malpractice risk, and will avoid the inconvenience of prolonged vaginal deliveries. Yet it also runs a risk of alienating those patients who are savvy enough to detect when the surgery is unnecessary.

Naturally, patients who are themselves physicians (many of whom would have some experience delivering babies during clinical rotations in med school) are less likely to defer to doctors' recommendations and more likely to bristle when an obstetrician is too quick to resort to Cesarean delivery.

The model has two main predictions: all else equal, obstetricians will recommend and perform more C-sections when a) they have a greater financial incentive to do so and b) their patients are less likely to be informed about the right clinical decision.

To test these predictions, they look to confidential birth data from hospitals in California and Texas. California is a good testing ground because a decent fraction of hospitals are run by HMOs where doctor incentives are different. HMO doctors tend to be salaried rather than paid partially on the basis of what procedures they perform, so they have little or no financial incentive to increase C-section rates beyond clinically-necessary levels (in fact, they have incentive to perform fewer C-sections).

This allows the authors to test both hypotheses at once. According to the model, C-section rates for physician mothers should be lower than rates for the general population because they are more resistant to PID. But the difference should mostly disappear at HMO hospitals, where obstetricians have little reason to pursue extra C-sections in the first place. The rates of unscheduled Cesarean sections shown in the figure below suggest the authors are onto something.

Are physician mothers better at avoiding C-sections?

Unscheduled Cesarean delivery rates at California hospitals by hospital type, 1996-2005. At HMO hospitals, where doctors are generally salaries and not paid per procedure, rates are similar for physicians and non-physicians. At non-HMO hospitals, however, physician mothers have significantly fewer unscheduled c-sections.

Unscheduled Cesarean section delivery ratephysician mothersnon-physician mothersHMO hospitalsNon-HMO hospitals0%5%10%15%20%

Note: Data for first births only. Source: adapted from Table 2 in Johnson & Rehavi (2016)

Mothers who happen to also be physicians are a small population and have some special characteristics: by definition they are more educated than most of the childbearing population, and they tend to be older and come from higher-income neighborhoods as well. Could that be driving the differences in the figure above?

The authors estimate a model that controls for demographic factors and find that the difference holds up: mothers with MDs are 11% less likely to have an unscheduled C-section than non-physician mothers with similar characteristics.

The childbirth data from Texas provides some additional information on physician mothers, including their medical speciality. The authors hypothesize that physician mothers with more directly relevant knowledge (like anesthesiologists or pediatricians) might be even better informed than doctors with other specialities like psychiatry. Sure enough, they find that C-section rates

are lowest for those doctors with training most relevant to surgery, childbirth, and infant care.

Looking at follow-up data on complications for mothers and infants, the authors find that these C-section reductions are achieved without any increase in bad outcomes for mothers, and their infants actually fare better in the days after birth, with less need for intubations and fewer infections.

Physician mothers also have lower total hospital charges, partially thanks to the lower rate of C-sections. This implies that the occasional extra C-section performed on less savvy patients is not only failing to reduce complications – it is also contributing to rising medical costs.

Cesarean delivery rates have been rising in recent decades, and the evidence uncovered by the authors suggests that physician induced demand could be playing a role. The authors note that if all patients were treated as efficiently as patients with MDs, Cesarean delivery rates would likely drop low enough to meet a U.S. Department of Health and Human Services goal for a 10% reduction by 2020. But strong financial incentives for doctors and hospitals means that less informed mothers are likely to continue to receive C-sections more often than they really should. •

"Physicians Treating Physicians: Information and Incentives in Childbirth" appears in the February 2016 issue of the American Economic Journal: Economic Policy.

10. Budgeting health care and education in institutional economicsStopping the death spiral

What policies can keep health insurance markets from going down the drain?

Tim Hyde

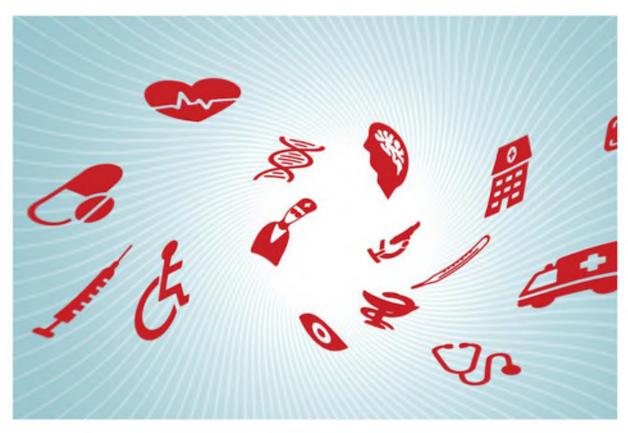


Illustration by Tim Hyde, images from FilBorg/Bigstock

"It's gone. It's gone. Not working. It's gone."

That was President Donald Trump's dire prognosis for the health care exchanges established under the Affordable Care Act, delivered Wednesday at a speech in Nashville. His comments echoed similar warnings by congressional Republicans and health insurance executives that the marketplaces are on the brink of collapse.

Why are the exchanges collapsing, according to critics? Too many sick people and too few healthy ones are signing up for insurance, setting off an adverse selection "death spiral" that could result in insurers pulling out of the markets.

Under the Affordable Care Act, insurers are not allowed to refuse coverage or charge higher premiums to customers who have chronic illnesses like cancer or diabetes – "pre-existing conditions" in the parlance of health insurers.

This is a pretty popular aspect of the bill, because it ensures that people won't be locked out of insurance markets when they need care the most. But it

leaves insurers with only one option if the customer pool gets sicker: raise premiums for everyone, healthy and sick.

This ensures that everyone has equal access to care, but it can make health insurance a pretty bad deal for the healthiest customers who know that most of their premiums will go to pay for other people's care. Some healthy people might decide to take their chances and go without insurance if prices rise too high.

This in turn makes the insurance pool sicker on average, leading to higher premiums and potentially a vicious cycle where more and more people leave the pool and only the sickest remain.

Too many sick customers can doom a health insurance pool

Breakdown of health expenditures in 2014 by self-reported health among non-elderly adults in the U.S. These totals include both out-of-pocket payments and spending on behalf of patients by insurers or the government. The least healthy segments of the population aren't very numerous, but naturally they rack up much higher bills.

Share of U.S. population age 21-64Average annual costs25.7%35.2%27.2%9.2%2.7%12.6% of total spending24.4%29.4%20.1%13.5%excellentvery goodgoodfairpoorSelf-reported health status\$0\$5,000\$10,000\$15,000\$20,000\$25,000

Source: 2014 Medical Expenditure Panel Survey

It doesn't take too many people with sky-high expenses to start destabilizing a pool. As Aetna CEO Mark Bertolini pointed out in January when he announced the company was considering withdrawal from the exchanges, the most expensive one percent of customers were responsible for 50% of the costs in some of Aetna's pools. That forces premiums up, making insurance less appealing to healthy customers and potentially setting off a death spiral.

Whether the ACA exchanges themselves are on the brink of a death spiral is debatable. Some exchange markets have seen premiums rise and insurers

depart, but the Congressional Budget Office predicted that markets would stabilize in most areas even without changes to the law.

The broader point is that one customer's health insurance plan doesn't exist in an economic vacuum. Your prospects for getting insurance depend on who else is in the pool with you, so legislators have to be careful. A seemingly unrelated policy change could flood the marketplace with sick people, or shore up the pool with young customers in the pink of health.

Jeffrey Clemens, an economist at the University of California, San Diego, has studied how different health policies can interact, sometimes with unintended consequences.

"I think that the health-reform debate and its liveliness within policy circles has made people appreciate how a number of policy instruments relate to one another," said Clemens in an interview with the AEA. Raising the Medicare eligibility age, for example, could alter the complexion of ACA health insurance exchanges and potentially lead to a premium spike.

"Imagine the thought experiment of increasing the Medicare retirement age from 65 to 70," said Clemens. "Then you have a bunch of 65-to-69 year olds looking for insurance on the exchanges." These people will tend to have much higher health costs than the average person of the exchange, pushing premiums up for everyone in the pool.

Likewise, the provision of the ACA allowing children to stay on their parents' plans until age 26 deprives the insurance exchanges of a pool of young customers who are healthier than average and could help balance out the high costs of older customers and forestall a death spiral.

Clemens studied what happened in the 1990s when a few states tried to set up community-rated insurance pools. These were precursors to the ACA's exchanges that also prohibited insurers from discriminating or charging different prices on the basis of a customer's health.

I think that the health-reform debate and its liveliness within policy circles has made people appreciate how a number of policy instruments relate to one another.

Jeffrey Clemens

These states "went all in on the pre-existing conditions rules without [also] introducing additional policy instruments that the ACA brings into the picture to try to prevent" a death spiral, explained Clemens. The Affordable Care Act includes premium subsidies and a tax penalty for those who don't anticipate to try to combat the adverse selection problem, but these state exchanges did not have similar rules.

It didn't work too well in many cases, with some states abandoning their exchanges after a few years or switching to rules where insurers could charge slightly more for sicker patients. But some states saw greater participation in their exchanges.

This period coincided with an expansion of Medicaid programs in several states, with each state managing its own expansion under its own rules. Clemens finds states that selectively expanded Medicaid to cover a disproportionately unhealthy population – New York was especially adept at this – generally had more success with their community rating pools.

This presumably happened because some of the highest-cost customers exited the market, allowing insurers room to lower premiums and attract people who were on the fence about joining the pool. Less upward pressure on premiums would have translated into less adverse selection pressure and better-functioning insurance pools.

Medicaid expansions are generally thought to crowd out private insurance markets, but in this case it seems like Medicaid indirectly supported private insurance and actually expanded community-rated markets.

This offers an implicit cautionary tale for the latest round of health reform. There isn't a perfect parallel between today's ACA exchanges and the community-rating pools of the 1990s. But it's reasonable to expect that cuts or

changes to Medicaid that dump unhealthy people back into the state exchanges could imperil the health of those plans, for sick and healthy alike.

- 11. Financial system in institutional economics
- **12.** Externalities. Economic rent theory

Why does water pollution get worse at political boundaries?
Rethinking incentives for local politicians in China
Tim Hyde

The Lijiang River in the Guangxi region of southern China. A major tourist draw, the river is the subject of an intensive anti-pollution campaign.

Sean Pavone/Bigstock

River pollution flowing downstream is a classic example of a negative externality, and it can be especially problematic in cases where a river flows through multiple political jurisdictions. When polluted water flows across borders into the neighboring provinces and countries, it quickly becomes somebody else's problem. Water pollution that affects local residents can be politically disastrous, but governments and businesses often don't have nearly as much incentive to keep the water clean at the points where rivers flow out of their jurisdictions.

This "downstream effect" has been documented across the globe in studies of water quality ranging from the European Union to southern Brazil to the U.S.-Canada border. A paper appearing in the November issue of the *American Economic Journal: Economic Policy*studies a case of the downstream effect at work in China's major rivers and analyzes a government policy that changed incentives for local leaders.

In Water Pollution Progress at Borders: The Role of Changes in China's Political Promotion Incentives (PDF), authors Matthew Kahn, Pei Li, and Daxuan Zhao study the effects of a 2006 initiative by the Chinese central government to establish new incentives for local government officials to keep

rivers clean. The new criteria concerned a specific measure of water quality called chemical oxygen demand (COD). COD levels in a river are a good proxy for the amount of organic matter pollution in the water.

The new directive gave provincial leaders credit (and better opportunities for promotion) if they could reduce COD levels at water monitoring stations within their province, including ones located at provincial borders. If COD levels spiked in the next province downstream, leaders in that province could complain as well.

Local politicians' career trajectories are thought to be mostly linked to their track record for fostering economic growth, so keeping rivers healthy is probably a secondary concern for most. There is still some incentive to keep water clean for local residents to avoidembarrassing environmental scandals and citizen outrage, but maintaining clean rivers for the province next door is not usually a high priority. Suddenly, with the new rules, local leaders had a new incentive to care about the quality of their river water when it was about to flow out of their jurisdictions.

China's long rivers plagued by the "downstream effect"

A map showing the location of 499 water pollution monitoring stations in China, with stations at provincial borders highlighted in red. Before a 2006 reform, provincial governors had little incentive to keep rivers clean at the points where they flowed into neighboring provinces. Predictably, pollution tended to be worse there.

Chang Jiang (Yangtze R.)Huang He (Yellow R.)Border monitoring stationNon-border monitoring station

Source: geographic data from Kahn et al. (2015)

To see how river pollution responded to the reform, the authors analyze COD concentration data from 499 water quality monitoring stations across the country, about 100 of which are situated at provincial borders. Before the reform, the average COD concentration at these border monitoring stations was 12.6

mg/L, about 70% higher than the average level at monitoring stations in the provincial interior. For perspective, a reading of 2-8 mg/L for biochemical oxygen demand (a similar measure to COD) would signify a moderately polluted river.

After the central government announced new targets for CODs (and new penalties for noncompliance) as part of the eleventh Five-Year Plan in 2006, COD levels began to fall nationwide. Looking at data through 2010 (the latest publically available), the authors find that, after the new policy was announced, COD levels at border stations fell by about 2 mg/L more than levels at stations not along provincial borders. The differential finding holds up when the authors include controls for nearby economic activity, urban settlements, and water temperature.

The new incentive probably wasn't equally powerful in every province, though. The authors hypothesize that some local officials would be more likely to respond to incentives from the central government than others – namely, ones who were looking to move up the ranks within the Communist Party of China. Their analysis indicates that the new pollution criteria had much greater effect in provinces where the governors were young (and thus had a longer planning horizon for their careers).

In general, local authorities seemed to respond strongly to the new incentives from the central government, but how did they actually accomplish the reduction in COD levels? The authors note that while local governments in China have relatively less control over household and agricultural practices, they have a monopoly on zoning land for industrial activity. The pulp and paper industry is the top industrial emitter of COD discharges according to Chinese government sources, so the authors wondered if local governments had cracked down on this sector in particular to reduce COD levels at provincial borders.

Water pollutants such as petroleum, mercury, and phenol are more harmful than COD for public health. Unlike the case of COD, these water pollution measures do not significantly improve at boundary stations. This is relevant because these criteria were not chosen to be part of the objective performance criteria for evaluating the effectiveness of local officials. Examining geographic data on new paper plants that opened in the years before and after the reform, the authors measure the distance from each new plant to the closest border monitoring station. They find that plant openings tended to shift farther away from those sensitive border monitoring stations after 2006, but found no similar effect for non-border stations.

These findings are a good reminder that even in countries with limited free markets and an emphasis on centralized planning, economic incentives never really disappear. And the "downstream effect" is by no means limited to centrally-planned economies. A 2005 study found a very similar phenomenon in the United States when certain states took over responsibility for enforcing the Clean Water Act within their borders; rivers downstream from those states saw degraded water quality. Clearly, government officials are responsive to incentives the world over.

Even so, figuring out the right way to design those incentives isn't always easy. The authors note that the effect they find was quite narrow: mercury and phenol levels did not improve along with COD levels after 2005, probably because they were not included in the criteria for evaluation by the central government. The subsequent Five Year Plan implemented in 2011added new targets for these chemicals, but it remains to be seen if the downstream effect has been completely stamped out. •

13. Social choice theory

14. Government in institutional economics Formation and development of E-government

An A+ experiment How report cards transformed Pakistan's educational market

Diana Schoder



Students attend a lecture at the University of Karachi

Bigstock/Aleem Zahid Khan

Education is looking more and more like a market in developing countries.

With low-cost private schools on the rise, students are gaining new educational choices: do they want to attend public schools, which are often plagued by teacher absenteeism and other problems, or do they want to find alternatives?

Students don't always have the information they need to make these decisions. And without this information, schools might not have an incentive to improve.

Tahir Andrabi, Jishnu Das, and Asim Ijaz Khwaja examine these informational issues in their new paper in the June issue of the *American Economic Review*. They run an experiment in 112 Pakistani villages through the Learning and Educational Achievements in Pakistan Schools initiative and find that information changes everything.

The researchers gave academic tests to primary school students, sent report cards to the students' homes, and re-tested the students a year later. Each report card included the child's score and the average scores of each school in the village.

For schools that received report cards, test scores increased 42 percent more than those in schools without report cards. Private school fees decreased by 17 percent, and public schools saw a modest increase in how qualified the teachers were. Because the report cards induced higher quality and lower costs, primary school enrollment went up by 4.5 percent. A survey confirms that parents shifted their perceptions of school quality to reflect the school's scores.

Moreover, the report cards — including testing, printing, and distribution — only cost \$1 per child.

This is more than a successful intervention. It is evidence that a small amount of basic, transparent information can have a widespread impact on an entire educational market.

Private school responses to report cards

When private schools receive report cards, they respond in one of two ways. Initially high-scoring schools lower their fees, whereas initially low-scoring schools improve their testing. Green points indicate an increase in normalized test scores, and red points indicate a decrease.

Some of these results seem counterintuitive. For example, why would the best private schools lower their costs? The answer is all about asymmetric information. Private schools used to indicate how good they were by charging higher prices. Once the schools had report cards, they used their test scores — rather than their fees — to signal their quality. Then, the schools were able to lower their cost.

Low-cost, low-scoring private schools did not have that option. If they lowered their fees, they risked losing students to the practically free public schools. Instead, they focused on improving their quality. Because they were financially constrained, they could not invest in teacher training or new resources. But by reducing their break time by about 15 minutes a day, they were able to boost their test scores.

Private schools faced the constant threat of losing students, but public schools did not have the same type of accountability; yet, public schools still

improved when given report cards. The only change they saw was increased parental interactions with the school district, which is consistent with the explanation that parents successfully put pressure on teachers to improve.

Of course, parents already had ways of assessing school quality before these report cards. "It would be a very odd world where something is important and no one is trying to find it out," says Khwaja. He gives the example of an illiterate mother who would test her children by reciting poems she had memorized, having them write the words down, and asking them to read the text back to her. Based on their responses, she could tell if they were learning at school.

Still, these methods only lead to partial information. Report cards help to fill in parents' knowledge more completely and hold schools accountable.

It would be a very odd world where something is important and no one is trying to find it out.

Asim Ijaz Khwaja

Khwaja sees this study as one piece in a "grand Jigsaw puzzle" of various educational market failures. Identifying and systematically addressing these market failures, including the lack of information, is a promising route toward improving Pakistan's schools.

For now, he can sum up their main message in two words.

"Information matters."

15. Institutional structure of the economy and institutional changes

What have economists learned about culture?

Understanding the interplay between culture and institutions

Tim Hyde



Florence was one of a handful of "free cities" that experienced a form of participatory democracy during the Middle Ages in Italy. Some have attributed better economic outcomes in the northern part of Italy to the sense of cooperation and trust fostered by the free cities in that region centuries ago.

Sorin Colac/Bigstock

This month the economics world is remembering Nobel laureate Douglass North, who passed away in November at age 95. North is credited with bringing a deeper understanding of institutions and historical context to an economics profession that was, in the 1970s, too narrowly focused on the theoretical functioning of markets. He is closely identified with thenew institutional economics movement that placed an emphasis on understanding that markets do not operate in a vacuum.

In the decades since North's seminal work, economists and economic historians have paid increasing attention to the two-way relationship between economics and culture, and how they both influence the development of institutions, broadly defined. These institutions – laws, behavioral norms, and traditions – provide, as North put it, the "rules of the game" that allow markets to

function in the real world. An article appearing in this month's issue of the *Journal* of *Economic Literature* surveys some of the latest developments in this emerging field.

In Culture and Institutions (PDF), authors Alberto Alesina and Paola Giuliano note that even defining the term *culture* can be tricky, and economists have long been reluctant to study cultural forces if they can't be part of a testable hypothesis that can be proven or disproven with data. How can this notion of culture be quantified?

Probably the easiest way to measure cultural differences is through survey questions that touch on basic attitudes, such as "would you say that most people can be trusted?"" Asking these questions across different countries or groups can form the basis of a study correlating, for instance, trust levels and economic growth. The graphic below shows how respondents around the world answered different questions about trust, luck, family ties, and individualism.

A world map of cultural attitudes

Researchers use standardized survey questions about trust, family, luck, and other matters to measure cultural attitudes in different countries. Economists are increasingly trying to understand the two-way relationship between culture and the institutions that govern the operation of markets.

Slide to view attitudes about various cultural values

trust family ties morality work vs. luck individualism

00.250.50.75Generally speaking, would you say that most people can be trusted or thatyou can't be too careful when dealing with others? Percent responding 'most people can be trusted'

Note: respondents were asked to disregard sentimental value. World Values Survey and Hofstede (2001) Researchers have also used experiments to identify cultural differences without relying on self-reported attitudes. Researchers will invite people to participate in simple economic experiments like the ultimatum game where subjects face low-stakes decisions about how much money they are willing to give to others, or whether they should rely on other participants to pay them back. These choices can reveal attitudes about trust, risk tolerance, and cooperation that can corroborate (or contradict) survey responses.

With these measures of culture in hand, researchers have begun to explore connections between cultural attitudes and economic variables. Trust seems to play a large role in how much people want to engage in markets, with massive consequences for economic development. Generalized trust levels have been linked to an array of economic outcomes of interest such as trade, innovation, and development of a country's financial sector.

Other attitudes have been implicated as well; one study showed that a strong emphasis on family ties in a country is correlated with a proliferation of family businesses, which have been shown in other contexts to be less efficient, expansive, and competitive than non-family firms.

A few researchers have instead looked to family structures for clues about underlying cultural attitudes. By examining factors like whether children leave home after marrying and how inheritances tend to be distributed across children, researchers can group countries by the predominant family type – for instance, "stem families" are common in Austria, Japan, and Israel, while "communitarian families" are prevalent in Finland, Bulgaria, and Indonesia. Family structures have been linked to educational attainment, wealth inequality, and even the design of national pension systems across countries.

It's not always apparent whether deeply-held cultural beliefs are actually responsible for these economic outcomes, or if there is some reverse causality at play as well (perhaps a robust history of family firms in a country changes attitudes about family ties there, for example). One way around this is to comb through the history books in search of "natural experiments" that affected the

culture and institutions of two groups differently. The resulting data can be used to draw more solid conclusions about the effect of cultural traits.

"Empirical investigation of the relevance of culture on economic outcomes is fairly new in economics. So far, the goal of most cultural economics papers has been to establish the relevance of culture."

Alesina and Giuliano (2015)

In one example of this approach, a 2013 study focused on cities in western Germany, some of which briefly fell under French control during the Napoleonic Wars. Conquered areas were more likely to see reforms, like a new civil code and the abolition of guilds, as the invading forces disrupted legal institutions that had been in place since the Middle Ages. The study found that these "reformed" regions were more likely to urbanize and prosper in the subsequent decades than other parts of Germany.

A different line of research has endeavored to explain the origin of cultural differences using economic reasoning. Deeply held beliefs and values have to come from somewhere, and oftentimes economic conditions may be the root cause.

One study about the origins of democracy used data on historical pathogen concentrations to try to explain cultural attitudes about cooperation with group members and outsiders. High pathogen concentration in a region is correlated with measures of collectivist attitudes but also xenophobia. The authors argue that collectivism and fear of outsiders could be rational responses to an increased risk of disease.

Another study also used historical differences to try to explain modern attitudes about female labor force participation. They compare regions that historically grew crops that lent themselves to plow use (including wheat, teff, and barley) with other regions that grew crops lending themselves to hand tillage (like millet and sorghum). They find that modern-day female labor force participation is higher in the latter countries, and attitudes tend more toward gender equality. The variation in dowry and brideprice traditions across the globe may have a similar explanation.

Experimental evidence can also reveal economic explanations for cultural beliefs. In one study, researchers studied two groups of fishermen, both living in the Brazilian state of Bahia but in very different circumstances. One group lived near a lake, where fishermen found it most efficient to work alone in small boats. This left them in direct competition with each other for the best fishing territory. The other group lived on the sea coast and, in response to the different conditions there, they fished on larger boats in groups, making cooperation and teamwork keys for success.

The researchers offered research subjects from each group two choices: they could try to complete a ball-throwing task for a small amount of money, or earn potentially more money if they outperformed an unseen opponent. Fishermen from the lake region (especially the older, more experienced anglers) were much more inclined to compete against another person rather than against a pre-set goal. The researchers argue that ecological factors are responsible for a cultural tendency toward competitiveness among the lake fishermen.

The link between cultural attitudes and economic forces isn't just a curiosity. Research shows that even when groups of people move around and end up in very different environments, cultural attitudes come along for the ride and can shape future economic outcomes.

A number of immigration studies have shown that second-generation immigrants in the United States seem to retain the beliefs and values of their parents' home country. For instance, one recent paper showed that tastes for wealth redistribution among various immigrant groups in the U.S. mirror those in the home countries, even among the second generation.

And these effects do not necessarily wear off after a couple generations – a 2011 study showed that present-day crime rates among whites in the southern U.S. is greater in counties that had more Scottish and Scots-Irish settlers in the 1700s. The author argues that this might be attributable to the "culture of honor" that developed among sheep herders in the Scottish highlands centuries ago (interestingly, violent crime against women was discernably lower in the Scottish-settled counties).

The authors note that most of the studies published try to isolate evidence of a causal effect for one event or one specific cultural attribute. The authors close with a call for a new generation of studies that develop a deeper understanding of the ways that culture, institutions, and economic forces simultaneously affect each other. •

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