

# MacroEconometric Forecasting



Topic:

Strengths/advantages of survey research

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# Introduction

- **Survey research** involves the collection of information from a sample of individuals through their responses to questions.
- Surveys are the most popular form of social research because of their versatility, efficiency, and generalizability.
- Many survey datasets, like the General Social Survey, are available for social scientists to use in teaching and research.



# Attractions of Survey Research

- Survey research owes its popularity to three features: versatility, efficiency, and generalizability.
- Each of these features is changing as a result of new technologies.



# Versatility

- First and foremost, survey methods are versatile.
- Although a survey is not the ideal method for testing all hypotheses or learning about every social process, a well-designed survey can enhance our understanding of just about any social issue.
- Computer technology has made surveys even more versatile. Computers can be programmed so that different types of respondents are asked different questions. Short videos or pictures can be presented to respondents on a computer screen.



# Efficiency

- Surveys also are popular because data can be collected from many people at relatively low cost and, depending on the survey design, relatively quickly.
- Surveys are efficient because many variables can be measured without substantially increasing the time or cost.
- Modern information technology has been a mixed blessing for survey efficiency. The Internet makes it easier to survey some populations, but it leaves out important segments.

# Generalizability



- Survey methods lend themselves to probability sampling from large populations.
- Thus, survey research is very appealing when sample generalizability is a central research goal.
- In fact, survey research is often the only means available for developing a representative picture of the attitudes and characteristics of a large population.



# The Omnibus Survey

- An omnibus survey shows just how versatile, efficient, and generalizable a survey can be.
- An **omnibus survey** covers a range of topics of interest to different social scientists, in contrast to the typical survey that is directed at a specific research question.
- It has multiple sponsors or is designed to generate data useful to a broad segment of the social science community rather than to answer a particular research question. It is usually directed to a sample of some general population, so the questions, about a range of different issues, are appropriate to at least some sample members.



# Errors in Survey Research

- It might be said that surveys are too easy to conduct.
- Organizations and individuals often decide that a survey will help to solve some important problem because it seems so easy to write up some questions and distribute them.
- But without careful attention to sampling, measurement, and overall survey design, the effort is likely to be a failure.

# Errors in Survey Research, cont.



- For a survey to succeed, it must minimize four types of error (Groves 1989:vi, 10–12):
- **Poor measurement.** Presenting clear and interesting questions in a well-organized questionnaire will help to reduce measurement error by encouraging respondents to answer questions carefully and to take seriously the request to participate in the survey. Tailoring questions to the specific population surveyed is also important.



# Errors in Survey Research, cont.

- **Nonresponse.** Nonresponse is a major and growing problem in survey research, although it is a problem that varies between particular survey designs.
- **Inadequate coverage of the population.** A poor sampling frame can invalidate the results of an otherwise well-designed survey.
- **Sampling error.** The process of random sampling can result in differences between the characteristics of the sample members and the population simply on the basis of chance.



# Writing Questions

- Questions are the centerpiece of survey research.
- Because the way they are worded can have a great effect on the way they are answered, selecting good questions is the single most important concern for survey researchers.
- All hope for achieving measurement validity is lost unless the questions in a survey are clear and convey the intended meaning to respondents.



## Writing Questions, cont.

- Consider just a few of the differences between everyday conversations and standardized surveys that make writing survey questions much more difficult:
- Survey questions must be asked of many people, not just one.
- The same survey question must be used with each person, not tailored to the specifics of a given conversation.
- Survey questions must be understood in the same way by people who differ in many ways.



## Writing Questions, cont.

- You will not be able to rephrase a survey question if someone doesn't understand it because that would result in a different question for that person.
- Survey respondents don't know you and so can't be expected to share the nuances of expression that help you and your friends and family to communicate.
- Adherence to a few basic principles will go a long way toward ensuring clear and meaningful questions.



# Writing Questions, cont.

1. **Avoid Confusing Phrasing.** A simple direct approach to asking a question minimizes confusion.
  - Use shorter rather than longer words and sentences.
  - Breaking up complex issues into simple parts also reduces confusion.
  - A sure way to muddy the meaning of a question is to use **double negatives**.
  - So-called **double-barreled questions** are also guaranteed to produce uninterpretable results because they actually ask two questions but allow only one answer.



## Writing Questions, cont.

2. **Minimize the Risk of Bias.** Specific words in survey questions should not trigger biases, unless that is the researcher's conscious intent.
  - Biased or loaded words and phrases tend to produce misleading answers.
  - Answers can also be biased by more subtle problems in phrasing that make certain responses more or less attractive to particular groups.
  - Responses can also be biased when response alternatives do not reflect the full range of possible sentiment on an issue.



## Writing Questions, cont.

3. **Avoid Making Either Disagreement or Agreement Disagreeable.** People often tend to “agree” with a statement just to avoid seeming disagreeable.
  - This is termed “agreement bias,” “social desirability bias,” or an “acquiescence effect.”
  - The response choices themselves should be phrased to make each one seem as socially approved, as “agreeable,” as the others.



## Writing Questions, cont.

4. **Minimize Fence-Sitting and Floating.** Two related problems in question writing also stem from people's desire to choose an acceptable answer.
  - There is no uniformly correct solution to these problems
  - **Fence-sitters**, people who see themselves as being neutral, may skew the results if you force them to choose between opposites.



## Writing Questions, cont.

- Even more people can be termed **floaters**: respondents who choose a substantive answer when they really don't know or have no opinion.
- In spite of the prevalence of “floating,” people often have an opinion but are reluctant to express it.
- Because there are so many floaters in the typical survey sample, the decision to include an explicit “Don't know” option for a question is important.



# Writing Questions, cont.

## **Maximize the Utility of Response Categories.**

Questions with fixed response choices must provide one and only one possible response for everyone who is asked the question—that is, the response choices must be exhaustive and mutually exclusive.

There are two exceptions to this principle:

- (1) Filter questions may tell some respondents to skip over a question (the response choices do not have to be exhaustive), and
- (2) respondents may be asked to “check all that apply” (the response choices are not mutually exclusive).



## Writing Questions, cont.

- Vagueness in the response choices is also to be avoided.
- Questions about thoughts and feelings will be more reliable if they refer to specific times or events.
- Sometimes, problems with response choices can be corrected by adding questions.
- How many response categories are desirable? Five categories work well for unipolar ratings, while seven will capture most variation on bipolar ratings (Krosnick 2006; Schaeffer and Presser 2003:78-79).



# Combining Questions in Indexes

- Writing single questions that yield usable answers is always a challenge.
- Simple though they may seem, single questions are prone to error due to idiosyncratic variation, which occurs when individual's responses vary because of their reactions to particular words or ideas in the question.
- Differences in respondents' backgrounds, knowledge, and beliefs almost guarantee that some will understand the same question differently.



# Combining Questions in Indexes, cont.

- But the best option is often to develop multiple questions about a concept and then to average the responses to those questions in a composite measure termed an **index** or scale.
- **Index** The sum or average of responses to a set of questions about a concept.
- The idea is that idiosyncratic variation in response to particular questions will average out, so that the main influence on the combined measure will be the concept that all the questions focus on.
- The index can be considered a more complete measure of the concept than can any one of the component questions.



# Combining Questions in Indexes, cont.

- Because of the popularity of survey research, indexes already have been developed to measure many concepts, and some of these indexes have proved to be reliable in a range of studies.
- It usually is much better to use such an index to measure a concept than to try to devise questions to form a new index.
- Use of a preexisting index both simplifies the work involved in designing a study and facilitates comparison of findings to those obtained in other studies.



## Combining Questions in Indexes, cont.

- Three cautions are in order:
  - Our presupposition that each component question is indeed measuring the same concept may be mistaken.
  - Combining responses to specific questions can obscure important differences in meaning among the questions.
  - The questions in an index may cluster together in subsets. (User factor analysis)



# Designing Questionnaires

- **Questionnaire** The survey instrument containing the questions in a self-administered survey.
- **Interview schedule** The survey instrument containing the questions asked by the interviewer in an in-person or phone survey.
- Survey researchers must give very careful attention to the design of the questionnaire as well as to the individual questions that it includes.



# Designing Questionnaires, cont.

- The way a questionnaire should be designed varies with the specific survey method used and with other particulars of a survey project.
- There can be no precise formula for identifying questionnaire features that reduce error.
- Nonetheless, some key principles should guide the design of any questionnaire, and some systematic procedures should be considered for refining it.



## Designing Questionnaires, cont.

- **Build on Existing Instruments.** If another researcher already has designed a set of questions to measure a key concept, and evidence from previous surveys indicates that this measure is reliable and valid, then use that instrument.
- **Refine and Test Questions.** Adhering to the preceding question-writing guidelines will go a long way toward producing a useful questionnaire. However, simply asking what appear to you to be clear questions does not ensure that people have a consistent understanding of what you are asking.



## Designing Questionnaires, cont.

- **Add Interpretive Questions.** These will help the researcher understand what the respondent meant by his or her responses to particular questions.
- Consider five issues when developing interpretive questions—or when you review survey results and need to consider what the answers tell you.



# Designing Questionnaires, cont.

1. What do the respondents know?
2. What relevant experiences do the respondents have?
3. How consistent are the respondents' attitudes, and do they express some larger perspective or ideology?
4. Are respondents' actions consistent with their expressed attitudes?
5. How strongly are the attitudes held?



# Maintain Consistent Focus

- A survey (with the exception of an omnibus survey) should be guided by a clear conception of the research problem under investigation and the population to be sampled.
- Until the research objective is formulated clearly, survey design cannot begin.
- Throughout the process of questionnaire design, this objective should be the primary basis for making decisions about what to include and exclude and what to emphasize or treat in a cursory fashion.



# Order the Questions

- The order in which questions are presented will influence how respondents react to the questionnaire as a whole and how they may answer some questions.
- As a first step, the individual questions should be sorted into broad thematic categories, which then become separate sections in the questionnaire.
- Throughout the design process, the grouping of questions in sections and the ordering of questions within sections should be adjusted to maximize the questionnaire's overall coherence.



## Order the Questions, cont.

- The first question deserves special attention, particularly if the questionnaire is to be self-administered.
- This question signals to the respondent what the survey is about, whether it will be interesting, and how easy it will be to complete.
- For these reasons, the first question should be connected to the primary purpose of the survey, it should be interesting, it should be easy, and it should apply to everyone in the sample (Dillman 2000:92–94).



# Order the Questions, cont.

- One or more filter or screening questions may also appear early in the survey in order to identify respondents for whom the questionnaire is not intended or perhaps to determine which sections of a multipart questionnaire a respondent is to skip (Peterson 2000:106–107).
- Prior questions can influence how questions are comprehended, what beliefs shape responses, and whether comparative judgments are made (Tourangeau 1999).



# Make the Questionnaire Attractive

- An attractive questionnaire is more likely to be completed and less likely to confuse either the respondent or, in an interview, the interviewer.
- An attractive questionnaire also should increase the likelihood that different respondents interpret the same questions in the same way.
- Printing a multipage questionnaire in booklet form usually results in the most attractive and simple-to-use questionnaire.



# Consider Translation

- Should the survey be translated into one or more languages?
- In the 21st century, no survey plan in the United States or many other countries can be considered complete until this issue has been considered.
- When immigrants are a sizeable portion of a population, omitting them from a survey can result in a misleading description of the population.



# Consider Translation, cont.

- A properly translated questionnaire will be:
- **Reliable:** convey the intended meaning of the original text;
- **Complete:** do not add any new information nor omit any information in the source document;
- **Accurate:** free of spelling and grammatical errors;
- **Culturally appropriate:** convey a message that is appropriate for the target population;
- **Equivalent:** maintain in the target language the same terms and sentence structures and concepts and adhere to the same societal rules as in the source language and culture.

# Organizing Surveys



- There are five basic social science survey designs.
- Survey researchers are now also combining elements of two or more of these basic designs in “mixed mode” surveys.
- **Manner of administration.** The five survey designs differ in the manner in which the questionnaire is administered.

# Organizing Surveys, cont.



- **Questionnaire structure.** Survey designs also differ in the extent to which the content and order of questions are structured in advance by the researcher.
- **Setting.** Most surveys are conducted in settings where only one respondent completes the survey at a time, but some are administered to groups.
- **Cost.** The expense of different types of surveys can vary greatly, with phone surveys being the least expensive.



# External Validity

- Because of their different features, the five designs vary in the types of error to which they are most prone and the situations in which they are most appropriate.
- They can also be improved in different ways by adding some features of the other designs.



# Five Basic Social Science Survey Designs

- Mailed, Self-Administered Surveys
- Group-Administered Surveys
- Telephone Surveys
- In-Person Interviews
- Web Surveys



# Mixed-Mode Surveys

- **Mixed-mode surveys** allow the strengths of one survey design to compensate for the weaknesses of another and they can maximize the likelihood of securing data from different types of respondents (Dillman 2007:451-453; Selm and Jankowski 2006).
- The mixed mode approach is not a perfect solution. Respondents to the same question may give different answers because of the survey mode, rather than because they actually have different opinions.

# A Comparison of Survey Designs



- Which survey design should be used when?
- The most important consideration in comparing the advantages and disadvantages of the methods is the likely response rate they will generate.



# A Comparison of Survey Designs, cont.

- Various points about the different survey designs lead to two general conclusions:
- First, in-person interviews are the strongest design and generally preferable when sufficient resources and a trained interview staff are available; telephone surveys have many of the advantages of in-person interviews at much less cost, but response rates are an increasing problem.
- Second, the “best” survey design for any particular study will be determined by the study’s unique features and goals rather than by any absolute standard of what the best survey design is.

# Ethical Issues in Survey Research



- Survey research usually poses fewer ethical dilemmas than do experimental or field research designs.
- Potential respondents to a survey can easily decline to participate, and a cover letter or introductory statement that identifies the sponsors of, and motivations for, the survey gives them the information required to make this decision.
- The methods of data collection are quite obvious in a survey, so little is concealed from the respondents.



# Ethical Issues in Survey Research, cont.

- Current federal regulations to protect human subjects allow survey research to be exempted from formal review unless respondents can be identified and disclosure of their responses could place them at risk.
- **Confidentiality** is most often the primary focus of ethical concern in survey research.
- Many surveys include some essential questions that might, in some way, prove damaging to the subjects if their answers were disclosed.
- To prevent any possibility of harm to subjects due to disclosure of such information, the researcher must preserve subject confidentiality.



# Conclusions

- Survey research is an exceptionally efficient and productive method for investigating a wide array of social research questions.
- In addition to the potential benefits for social science, considerations of time and expense frequently make a survey the preferred data-collection method.
- The relative ease of conducting at least some types of survey research leads many people to imagine that no particular training or systematic procedures are required.



## Conclusions, cont.

- Nothing could be further from the truth.
- But as a result of this widespread misconception, you will encounter a great many nearly worthless survey results.
- You must be prepared to examine carefully the procedures used in any survey before accepting its findings as credible.
- And if you decide to conduct a survey, you must be prepared to invest the time and effort required by proper procedures.

# Reference and source



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