

Japanese Economists' Views on the Fiscal Multiplier:

Findings from a Twin Survey on the Japanese Economy and Policy Effects

August 1st, 2017
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1. Introduction

To plan economic policies properly and to implement them effectively, efforts to form a consensus on the quantitative effects of such policies are necessary.

Needless to say, while the accumulation of empirical research to help form a consensus is of essential importance, it is not always possible to establish an empirical fact that everyone can agree on.

To observe the consensus view among Japanese economists directly, ESRI conducted a questionnaire survey on the current situation of the Japanese economy and people's perceptions of the effects of macroeconomic policies last year.

1. Introduction (cont.)

In today's presentation, we provide a brief introduction of the survey and then report the findings related to the multiplier effect of public investment, i.e., the fiscal multiplier, in Japan.

The "fiscal multiplier" is probably one of the oldest concepts in empirical (and theoretical) macroeconomics and has been estimated for many years using various approaches. However, regardless of such efforts, agreement on the size of the fiscal multiplier has yet to be reached.

While it is not easy to reach an estimate of the multiplier that everyone can agree on, it is very meaningful (for policy planning and implementation) to know what size economists (as well as the general public) actually think the multiplier likely is.

1 . Introduction (cont.)

The following are examples of research questions addressed in this presentation:

- ✓ What is the size distribution of the fiscal multiplier people have in mind?

How large are the mean, median, and mode of the multiplier people have in mind?
To what extent do the views on the fiscal multiplier vary among people?

(Does any consensus view exists among Japanese economists on the magnitude of the fiscal multiplier?)

- ✓ Regarding the view on the multiplier among professional economists, are there any systematic differences depending on the type of economist?

- ✓ Regarding the direction of changes in the multiplier, is there any consensus?

- ✓ What kind of factors do economists think are the reasons for changes in the multiplier?

- ✓ ...

1. Introduction (cont.)

A precedent of a similar twin survey on the American economy is the “Survey of Americans and Economists on the Economy” by the Washington Post/Kaiser Family Foundation/Harvard University (1996).

Caplan (2001) used micro data from the twin survey above to examine the differences between economists’ view and the general public’s view about the US economy.

The Initiative on Global Markets (IGM) at the University of Chicago Booth School of Business publishes the responses of the members of the Economic Experts Panel, i.e., leading economists at the top universities in the US, to its poll questions on a weekly basis.

1. Introduction (cont.)

Turning to Japan, there are no academic studies similar to Caplan (2001), but the Nikkei newspaper has published the results of a survey among economists on the Japanese economy conducted jointly on two occasions by the Nikkei newspaper group and the Japanese Economic Association (2009/10/16, 2010/11/4).

However, to the best of our knowledge, what we report below are the results of the first survey (not only in Japan but probably also in the world) to directly ask economists (as well as the general public) about their view about the magnitude of the fiscal multiplier.

2. Outline of the twin survey

The survey was conducted using two separate questionnaires: one for the general public in Japan and the other for Japanese professional economists. Each questionnaire contained about 50 questions and about two-thirds of the questions were identical in both surveys, with the rest being specific to each survey.

Survey of Professional Economists on the Japanese Economy and Policy Effects

Target group: Economists focusing on the Japanese economy
- Mail survey based on a list of (about 5,000) economists in Japan, constructed based on the Grants-in-Aid for Scientific Research Database, the Analyst-Economist Directory compiled by Nikkei Research, and directories of the members of several major economic associations in Japan.

Number of respondents: 547.

Survey period: from November 29, 2016 to February 27, 2017.

2. Outline of the twin survey (cont.)

Survey on the Japanese Economy and Policy Effects

Target group: General public aged from 18 to 79 living in Japan
Internet survey that utilizes 2.3 million qualified market research respondents (Rakuten Research monitors) in Japan
Number of respondents: 5,167.
Survey period: from November 16, 2016 to November 22, 2016.

Contents of the survey

- A. Questions about you (sex, age, residence, education, job, media, etc.)
- B. Your views on Japan's economy (current states, outlook, etc.)
- C. Your views on the public burden and the tax system (including the consumption tax)
- D. Your views about infrastructure and public investment (fiscal policy)
- E. Your views on monetary policy
- F. Your views on free competition and deregulation
- G. Other

3. Sample distributions

In the following, we will report the results of the twin survey in summary tables and figures.

First, we briefly check the composition of respondents of the survey of the general public and compare it with the composition of Japan's *Population Census*.

We then report the attributes of the economists that responded to the survey of economists to provide some background information helpful for understanding the key findings presented in this presentation.

(We report the findings related to the multiplier effect of public investment in Japan in the following section.)

3. Sample distributions (cont.)

3.1 Distribution of the sample observations

➤ Population composition (from 18 to 80) by gender and age

Figure: Composition (%) based on the Population Census (2010)

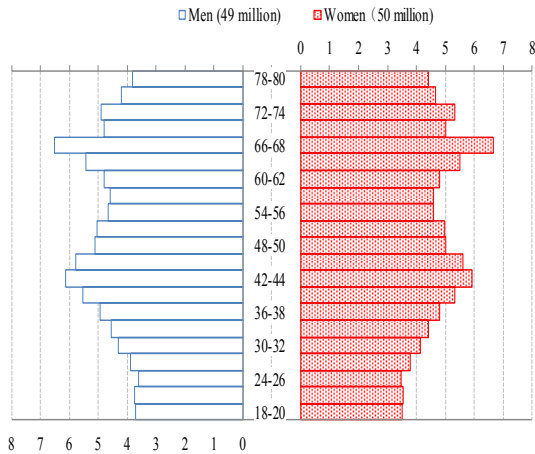


Figure: Composition (%) of respondents to the survey of the general public

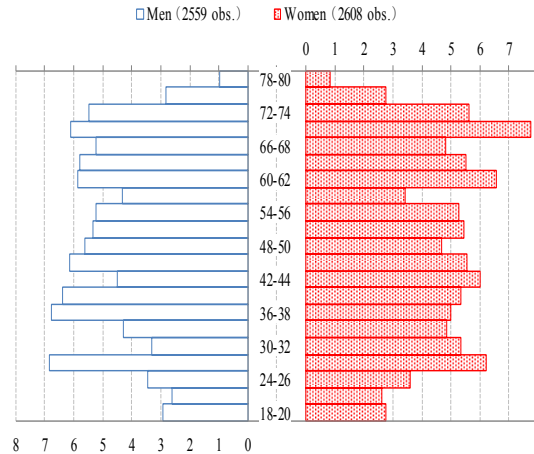
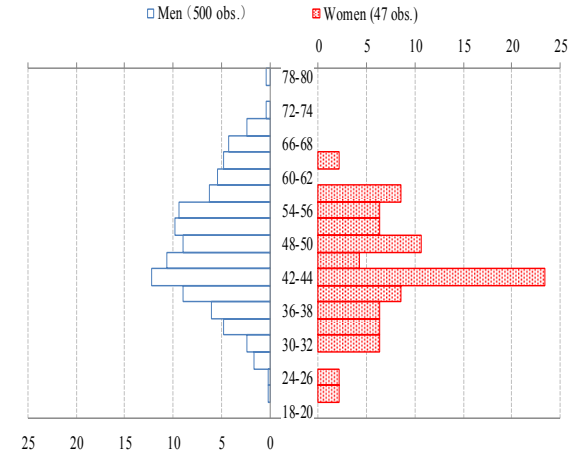


Figure: Composition (%) of respondents to the survey of economists



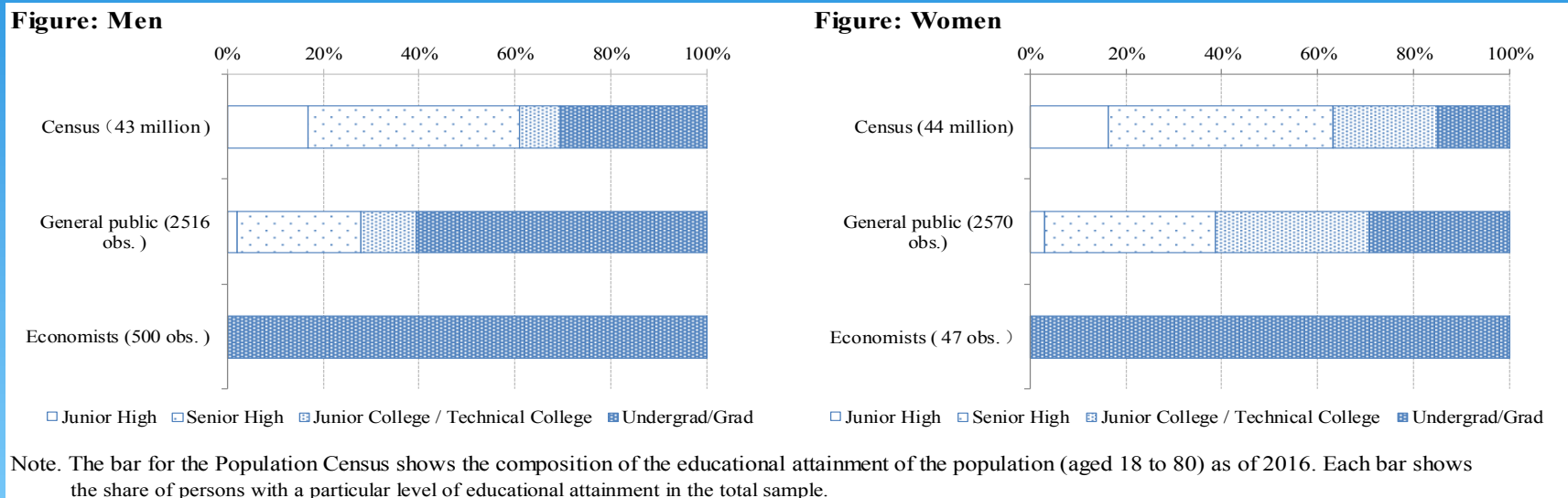
Note. The figure on the left shows the Population Census (2010) based estimate of the composition of the population aged 18 to 80 in 2016.

While the number of men and women among respondents to the survey of the general public is almost identical to the *Population Census*, the composition of respondents to the survey of economists is biased towards men, probably reflecting the true composition of Japanese economists.

While there are minor differences when looking in detail, the survey of the general public appears to cover almost every generation appropriately.

3. Sample distributions (Cont.)

- Composition of educational attainment by gender and age group



Probably due to the complicated (difficult to understand) content of our survey, there was a bias toward those with higher educational attainment among both male and female respondents.

Other than that, composition of respondents to the survey of the general public closely resembles that in the Population Census.

3. Sample distributions (Cont.)

3.2 Distribution of respondents to the survey of economists

➤ Economists' affiliation and educational attainment

Figure: Affiliation

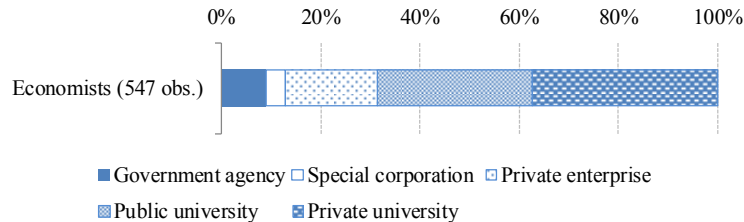
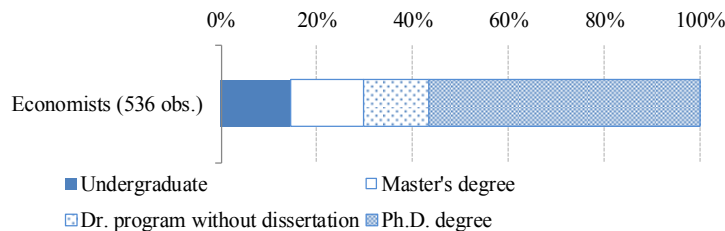


Table: Cross-tabulation (Affiliation vs. Education)

Affiliation \ Education	Undergraduate	Master's degree	Doctor completed without diss.	Ph.D.	Unknown	Total
Government ager	12	16	1	18	1	48
Special corporatic	3	5	2	11	1	22
Private enterprise	52	37	7	2	3	101
Public university	7	6	22	134	2	171
Private university	4	17	41	139	4	205
Total	78	81	73	304	11	547

Figure: Educational background



About 70% of the 547 economists that responded to the survey belong to a university; less than 20% belong to a private enterprise, while the rest belong to government agencies and special corporations.

Three quarters of the economists affiliated with a university hold a Ph.D., whereas the majority of economists in the private sector only hold an undergraduate degree.

3. Sample distributions (Cont.)

➤ Type of publications in the past five years

Figure; All economists in the survey

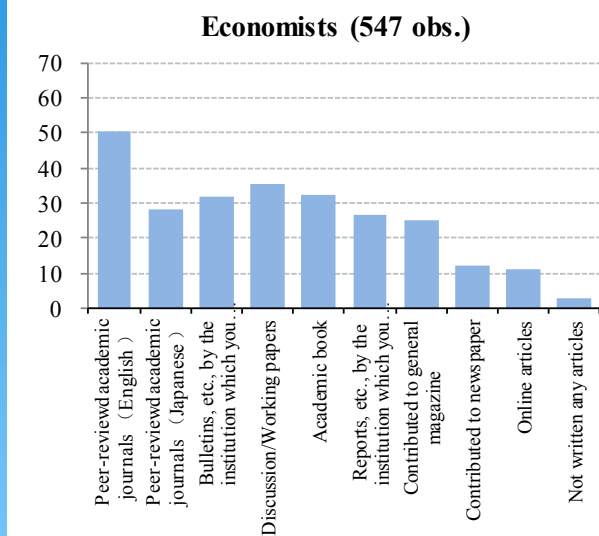
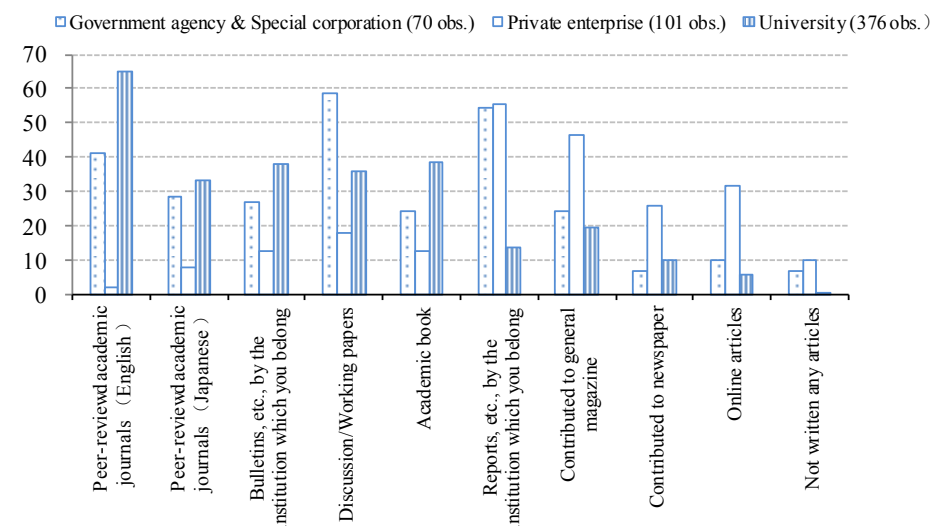


Figure: By type of affiliation



Notes: The vertical axes show the share (%) of respondents. Respondents were allowed to list up to five types of publication.

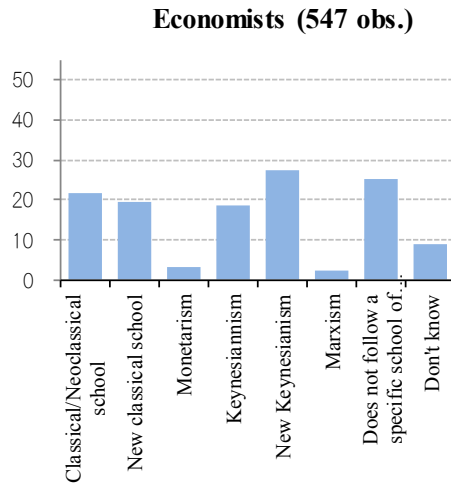
Asked for the main type of publication in which they have published in the past five years, the most frequent answer is peer-reviewed journals in English.

However, the type of publication in which respondents publish strongly depends on the type of institution to which they belong. It is for university-affiliated economists that peer-reviewed journals are the main form of publication.

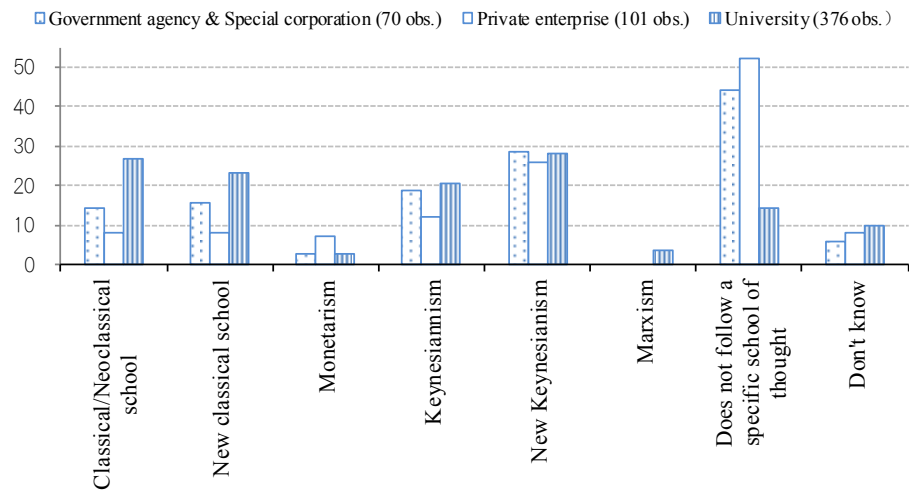
3. Sample distributions (Cont.)

- School of thought that you depend on when considering economic issues

Figure: All economists in the survey



Figure; By type of affiliation



Notes: The vertical axes show the share (%) of respondents. Respondents were allowed to list up two schools of thought.

The most frequently cited school of thought (among the economists surveyed) is 'New Keynesianism,' followed by 'As a practitioner, I do not follow a specific school of thought.'

However, there appears to be a sizable difference depending on the institution to which economists belong. While many university-affiliated economists cite the classical and new classical schools, private enterprise economists are mainly practice-oriented and do not follow a specific school of thought.

4. Findings about the fiscal multiplier from the survey

In the following, we report the survey results related to the magnitude of the fiscal multiplier in Japan.

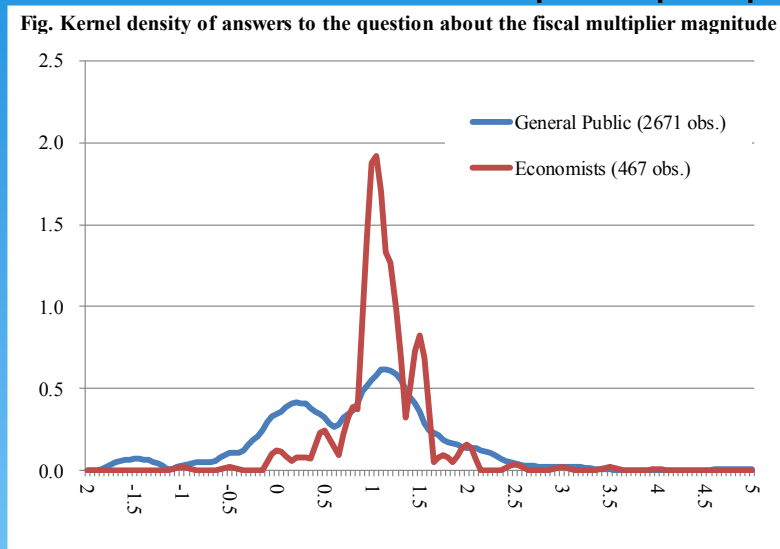
You can find the detailed wording of our question in the survey in your hand, but essentially we asked respondents to roughly estimate/guess the magnitude of the fiscal multiplier under the following conditions:

- We consider an increase in public investment at a time when the economy is slowing down or stagnating.
- Focus on the impact about one year after the increase in public investment.
- The composition of the increase in public investment is essentially the same as current public investment.
- The investment is financed through the issuance of government bonds
- Monetary policy is conducted based on the assumption that public investment will not push up short-term interest rates.

4. Findings (cont.)

- What is the distribution of the magnitude of the fiscal multiplier people have in mind?

People's view about the fiscal multiplier					
	Number of obs.	Mean	Median	Mode	Std. Dev.
All observations (GP + PE)	3,138	0.86	1.00	1.00	0.88
General public (GP)	2,671	0.81	1.00	1.20	0.93
Professional economists (PE)	467	1.12	1.10	1.00	0.48



The peak (mode) of answers to the question about the magnitude of the fiscal multiplier is about 1.2.

People's view about the multiplier is concentrated around 1.0, and this tendency is more pronounced in the survey of economists.

While the standard deviation of answers in the survey of the general public is close to 1, that in the survey of economists is less than 0.5. (Economists' guess/estimate of the size of the multiplier seems to fall within a compact range. Views of less than 0.5 or more than 1.6 are the exception.)

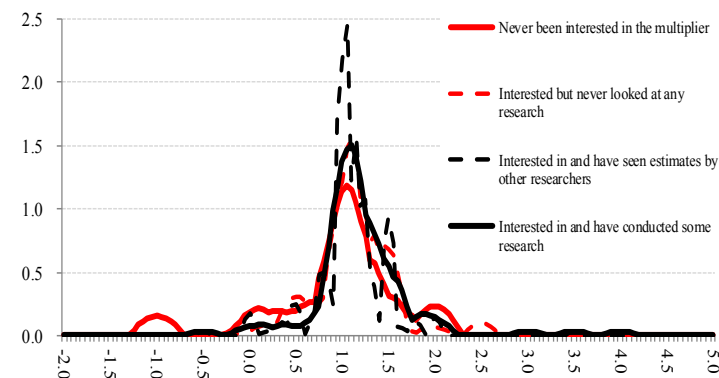
4. Findings (cont.)

➤ Economists' view about the multiplier

Table Economists' view about the fiscal multiplier by level of interest

	Number of obs.	Mean	Median	Mode	Std. Dev.
Never been interested in the multiplier	33	0.94	1.00	1.05	0.69
Interested but never looked at any research	112	1.15	1.10	1.10	0.45
Interested in and have seen estimates by other researchers	214	1.09	1.10	1.05	0.40
Interested in and have conducted some research	103	1.21	1.10	1.10	0.56

Fig. Kernel density of the economists' view by level of interest in multiplier



Among economists, the mean of the answers regarding the multiplier is smaller for those with the least interest in the multiplier, while the standard deviation of their answers is larger.

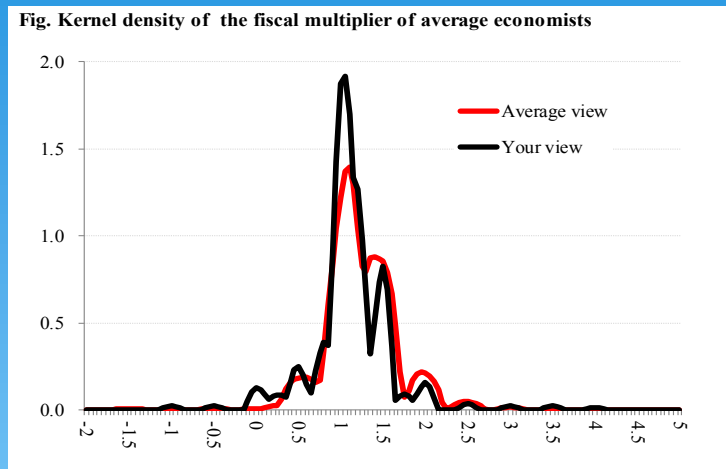
The answers by economists who are interested in and have seen estimates by other researchers are concentrated in the narrowest range around 1.1.

On the other hand, the answer of economists who have done some research on the fiscal multiplier themselves were larger and had a slightly larger standard deviation (than those of economists who had not conducted research on the topic).

4. Findings (cont.)

➤ Professional economists' view about the views of other economists

	Number of obs.	Mean	Median	Mode	Std. Dev.
Average economist	428	1.23	1.20	1.50	0.43
Bottom 5% economist	424	0.49	0.50	0.50	0.55
Top 5% economist	424	1.88	2.00	2.00	0.66



Economists believe their view about the fiscal multiplier is about the same as or slightly less than the average of other economists.

Economists believe that the multiplier estimates of 90% of Japanese economists falls within the range of 0.5 to 2.

4. Findings (cont.)

- Mean fiscal multiplier guess/estimate by type of economist

Attributes of economists who think the multiplier is large.

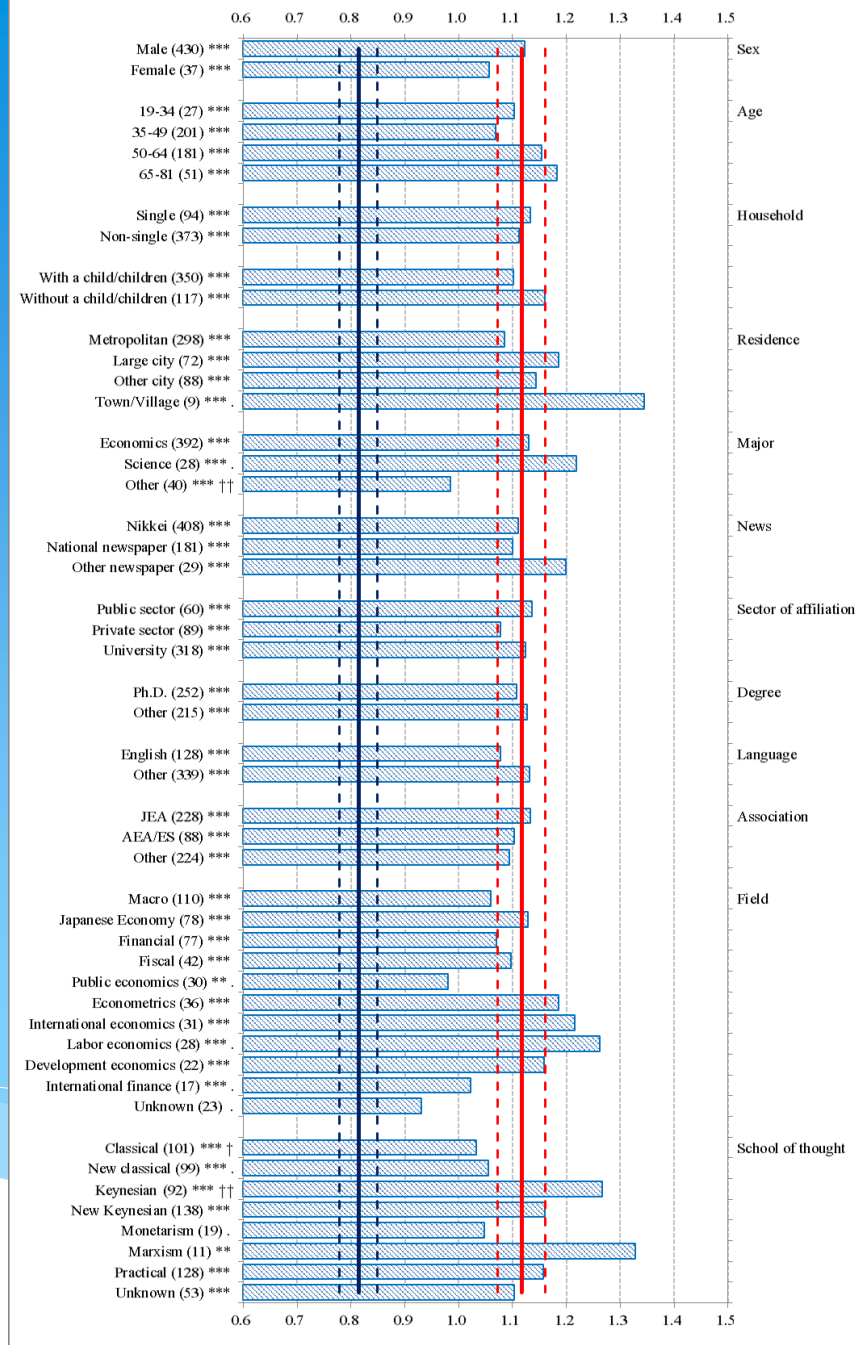
Old (65-81) Non-city residing
 Science major International/Labor economist
 Keynesian/Marxist economist

Attributes of economists who think the multiplier is small.

Non-science major Public economist
 Classical/New classical/Monetarist

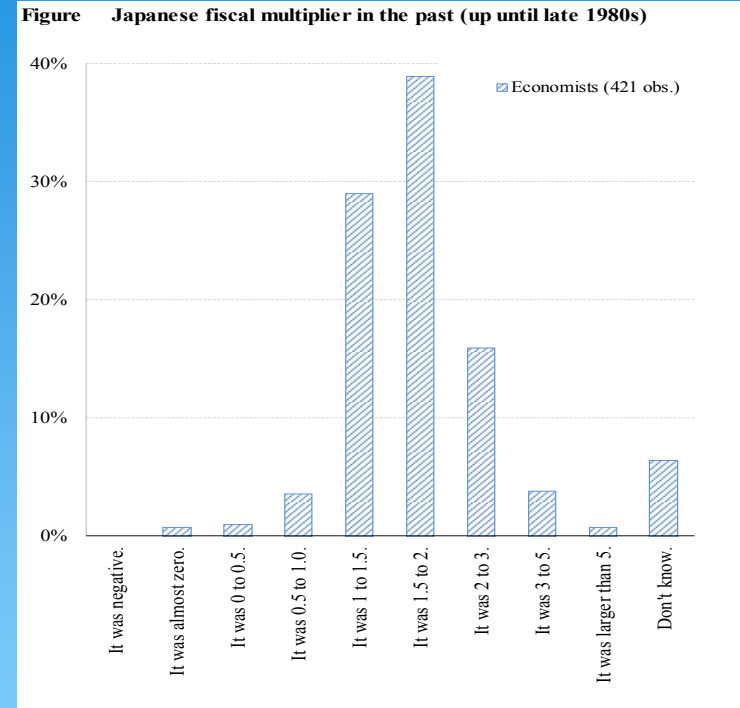
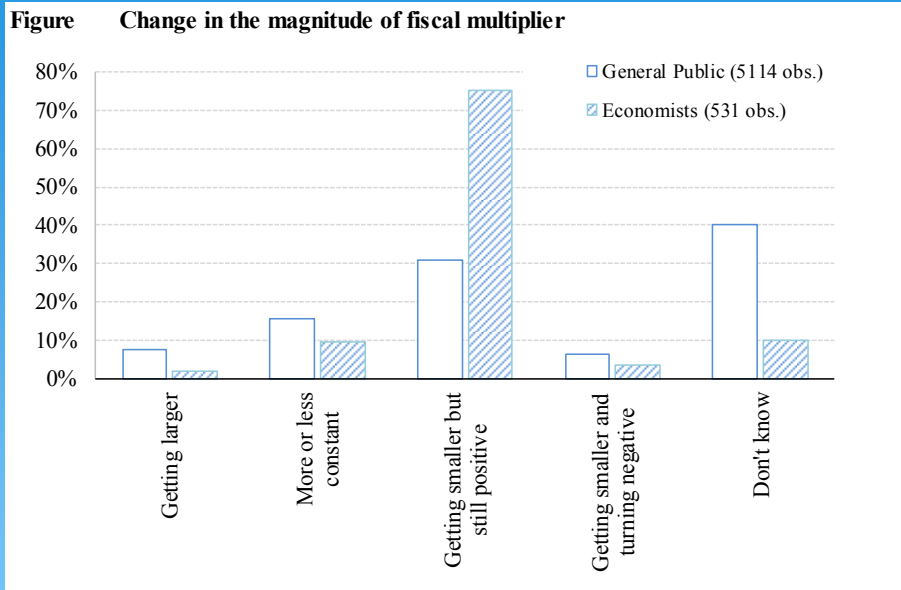
The means of answers of economists classified in terms of the various attributes range from approximately 1.0 to 1.3.

While the means of the multiplier estimates differ somewhat when grouping respondents in this manner (e.g. in terms of school of thought), the economic magnitude of the differences is relatively small.



4. Findings (cont.)

➤ Changes in the fiscal multiplier over the past decades



There seems to be a consensus among Japanese economists as well as the general public that the public investment multiplier in Japan is getting smaller (in the medium to long term).

Regarding the multiplier before the collapse of the bubble economy, the most widespread view among economists is that the multiplier was in the range of 1.5 to 2.

4. Findings (cont.)

➤ Changes in the fiscal multiplier over the past decades

Figure Reason why the multiplier has decreased

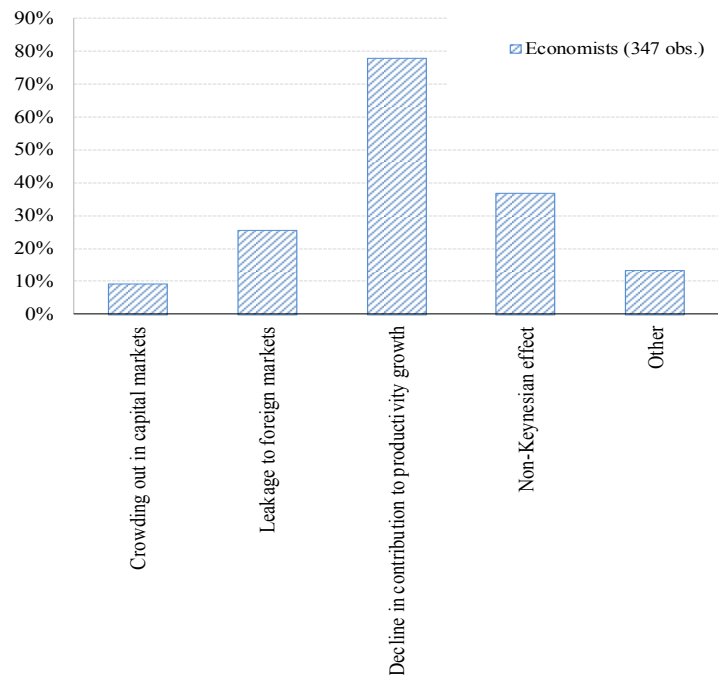
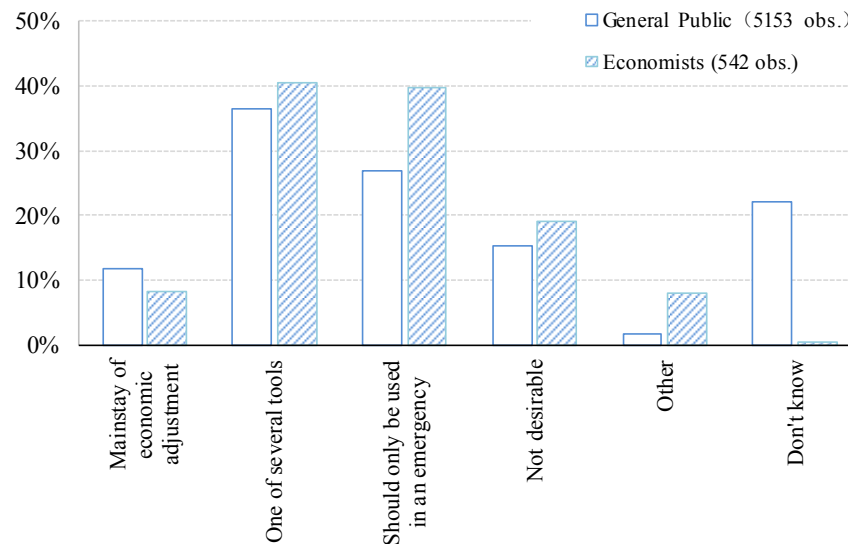


Figure Public investment as a means of economic adjustment



As to the reason why the multiplier is getting smaller, the most cited answer is that the effect of public investment on productivity growth is decreasing.

Economists appear to be more skeptical toward the use of public investment (or fiscal policy) to stimulate the economy than the general public.

5. Conclusion

In today's presentation, we tried to show what Japanese economists (as well as the general public in Japan) think the size of the fiscal multiplier is.

Our survey-based findings can be summarized as follows:

Guesses/Estimates of the fiscal multiplier among Japanese economists appear to be concentrated around a value of slightly more than 1.0.

The standard deviation among the guesses/estimates of economists is less than 0.5.

(Guesses/Estimates of less than 0.5 or more than 1.6 are the exception.)

5. Conclusion (cont.)

While the means of the multiplier estimates differ somewhat when grouping economists in various ways, the economic magnitude of the differences is relatively small.

(There aren't any large, systematic differences in the multiplier estimates across different types of economists.)

Close to 80% of Japanese economists answered that the public investment multiplier in Japan is getting smaller (in the medium to long term).

Regarding the multiplier before the collapse of the bubble economy, the most widespread view among economists is that the multiplier was in the range of 1.5 to 2.

5. Conclusion (cont.)

As to the reason why the multiplier is getting smaller, the most cited answer is that the effect of public investment on productivity growth is decreasing.

Japanese economists are rather skeptical toward the use of public investment to stimulate the economy, even though their mean multiplier estimate is slightly higher than that of the general public.

Even though attempts to empirically estimate the fiscal multiplier in Japan have not reached an undisputed conclusion, it seems that there is a considerable consensus about the magnitude of the fiscal multiplier among Japanese economists.

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