

Keynes, Kuznets and Estimates of Investment

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Abstract: In *The General Theory* Keynes used data from an NBER study by Simon Kuznets to present gross and net capital formation for the United States. Keynes made a number of mistakes in doing so. In Keynes's *Collected Writings* it is stated that the first draft of the note 'Fluctuations in net investment in the United States' that Keynes wrote to correct these mistakes has not survived. In this paper Keynes's first draft of this note is reconstructed from what appear to be the final two pages of the first draft and correspondence between Keynes and Kuznets.

I Introduction

In *The General Theory* Keynes used data from the National Bureau of Economic Research's *Bulletin 52, Gross Capital Formation, 1919-1933*, by Simon Kuznets to present gross and net capital formation for the United States from 1925 to 1933 (Keynes 1974, pp. 102-4). Keynes presented the data in chapter 8, which is entitled 'The propensity to consume: I. The objective factors', in which he used them to emphasise the importance of the difference between gross investment and net investment for consumption since, he argued, consumption is a 'function of *net* income, i.e. of *net* investment' (*ibid.*, p. 98). Later Keynes used the data to derive estimates of the multiplier and the marginal propensity to consume for the United States (*ibid.*, pp. 127-8).

Early in 1936, first George May, a director of the National Bureau of Economic Research, and then Kuznets wrote to Keynes saying that his use of these data was 'over hasty' (Keynes 1979, pp. 187-91). The gross capital formation figures of Kuznets that Keynes presented included consumers' durable commodities, residential construction, business investment (including the net change in business inventories), public and semi-public agencies' investment, and an unallocable component, which included the net change in claims against foreign countries. The entrepreneurs' servicing, repairs, maintenance, depreciation, and depletion figures that Keynes used to derive the net capital formation figures were for business investment only, though. Thus the net capital formation figures that Keynes presented were a hybrid, consisting of net capital investment by business enterprises but gross capital investment by households, and public and semi-public agencies. Kuznets wrote that he was 'rather perturbed about it', and asked if Keynes could 'find any way of amending (his) interpretation and correcting the erroneous impression that it is likely to create...' (*ibid.*, p. 191).

Two weeks later Keynes responded: 'It is clear that I have made a confusion, arising from my not realising that your deductions to arrive at net capital formation related to only a part of the capital items included in the grand aggregate of gross capital formation', and stated that he would 'take an early opportunity, probably in the *Economic Journal*, of clearing the matter up and showing just what the facts are on your calculation' (*ibid.*, p. 192). This was even though, in *The General Theory*, in presenting Kuznets' data, Keynes had said, '(Kuznets) attempts no deduction at all in respect of houses and other durable commodities in the hands of individuals' (Keynes 1974, p. 103).^{1,2} Two months later Keynes sent a first draft

of a note for the *Economic Journal* asking Kuznets for any comments he might have and also asking if there were any provisional figures yet available for 1934 or 1935, since they would add greatly to the interest of the note.

In the *Collected Writings* it is stated that the first draft of this note has not survived (Keynes 1979, p. 193). In the *Keynes Papers*, though, are what appear to be the last two pages, numbered 8 and 9, of the first draft of this note (*KP*, reel 34, pp. GTE/2/3/94-5). On the first of these pages is a summary table for aggregate net investment. From these two pages and the correspondence between Keynes and Kuznets (Keynes 1979, pp. 193-206), it seems possible to reconstruct fairly accurately the missing first draft of Keynes's note. This is done in section II. In section III the importance of this reconstructed first draft is discussed. The study is summarised in the final section.

II The First Draft of 'Fluctuations in Net Investment in the United States'

There are at least three versions of this article by Keynes: the first draft that Keynes sent to Kuznets on 11 June 1936, the page proofs for the *Economic Journal*, which are stamped 31 July 1936 (*KP*, reel 34, pp. GTE/2/3/91-3), and the *Economic Journal* article, which was published in the September 1936 issue (Keynes 1974, pp. 386-93). In a letter to Keynes on 26 June 1936, Kuznets enclosed detailed comments on Keynes's first draft. In these comments Kuznets listed seven sections. They are entitled: 1) Consumers' Durable Commodities, 2) Consumers' Residential Construction, 3) Business Fixed Capital, 4) Business Inventories, 5) Public and Semi-Public Agencies, 6) Foreign and Miscellaneous, and 7) Aggregate Net Investment.

On the first of the two pages in the *Keynes Papers* that appear to be from the first draft there is a section entitled 'Aggregate Net Investment' but it is numbered (6), not (7) as in Kuznets' comments. The version of the article in the page proofs for the *Economic Journal* has seven sections with titles similar to those in Kuznets' letter, but there are two numbered (5). Both the section entitled 'Public Construction' and that entitled 'Foreign Investment' are numbered (5). The last section, 'Aggregate Net Investment', is then numbered (6). If Keynes had made the same error in the first draft that would explain why the section on aggregate net investment is numbered (6) on page GTE/2/3/94 in the *Keynes Papers*.

Each of the seven sections will be discussed in turn.

Table 1

| | Aggregate net investment (millions of dollars) | | | | | | | | | |
|---------------------------|---|-------|-------|--------|-------|--------|--------|--------|--------|--|
| | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | |
| Residential construction | 1,150 | 965 | 756 | 895 | -173 | -1,078 | -1,300 | -1,789 | -1,724 | |
| Business fixed capital | 4,397 | 4,653 | 4,386 | 4,580 | 5,596 | 3,536 | 347 | -1,879 | -2,028 | |
| Foreign and Miscellaneous | 2,892 | 2,688 | 3,543 | 4,760 | 3,326 | 2,184 | 1,656 | 1,099 | 1,000 | |
| | 8,439 | 8,306 | 8,685 | 10,235 | 8,749 | 4,642 | 703 | -2,569 | -2,752 | |

1 Consumers' Durable Commodities

Table 1 presents the aggregate net investment table from the Keynes Papers.³ As can be seen, Keynes did not include an estimate for consumers' durable commodities in the table. Keynes said it was difficult to draw a hard-and-fast line as to whether consumers' durable commodities should be included in investment, but 'it is probable that few individuals feel it necessary in such cases to make a financial provision for depreciation apart from actual repairs and renewals. This, in combination with the difficulty of obtaining proper statistics and of drawing a clear line, makes it preferable, I think, to exclude such equipment from investment...' (Keynes 1974, p. 387)⁴.

Consumers' durable commodities had been included in the gross capital formation figures in *The General Theory*. The discussion of consumers' durable commodities is essentially the same in the page proof version of the article and the *Economic Journal* article. There is only one minor change in wording. Kuznets in his June 26 letter refers to the statement by Keynes about setting up financial provision for depreciation apart from actual repairs and renewals. As is seen in the quote above, there is such a statement in the *Economic Journal* article (and in the page proofs). The data presented for consumers' durable commodities in the page proof and the *Economic Journal* versions are gross data from line A1a of table 8 of *Bulletin 52*. Most likely this section in the first draft was very similar to the version in the *Economic Journal* article.

2 Consumers' Residential Construction

Keynes has net residential construction figures in Table 1 above. Those figures appear to be derived by subtracting depreciation estimates, in millions, of \$1900, \$2000, \$2100, \$2200, \$2300, \$2300, \$2200, \$2100, and \$2000 for the years 1925-1933, respectively, from the residential construction figures in Kuznets' line A1b of table 8 in *Bulletin 52*. In his June 26 letter Kuznets says that Keynes used these residential construction figures (Keynes 1979, p. 195). Kuznets, in his March 23 letter to Keynes, had said, '(a)ccording to Mr Solomon Fabricant...the depreciation charges on residential property, not held by corporations, amounted in 1929 to 2.3 billion dollars...' (*ibid.*, p. 191) Apparently Keynes developed his depreciation estimates for 1925 to 1933 based on this figure for 1929.

In the page proofs and the *Economic Journal* article Keynes changed the title of this section to 'Residential Construction', as Kuznets recommended. The discussion in this section is very brief in both the page proof and *Economic Journal* versions of the article. The middle of the first sentence is different in the two versions. In the page proof version it reads '...consumption expenditure, if only for the reason that houses are much more often purchased out of capital than out of income...' (*KP*, reel 34, p. GTE/2/3/91). This is changed to '...consumption expenditure, since houses are usually regarded as purchased out of savings and not out of income...' in the 'Fluctuations' article (Keynes 1974, pp. 387-8). Most likely this section of the first draft was very similar to that of the *Economic Journal* version except for the version of the sentence above and different depreciation data. In the page proof version and in the *Economic Journal* article Keynes used the same gross residential construction figures but subtracted current cost depreciation figures of Fabricant provided by Kuznets in his June 26 letter (Keynes 1979, p. 195).

3 *Business Fixed Capital*

Keynes's business fixed capital figures in Table 1 above are the same as Kuznets' figures in line 3b of table 10 of *Bulletin 52*. This is equal to Kuznets' formation of gross capital, destined for business use, exclusive of parts, repairs and servicing and repairs and maintenance of business construction, excluding changes in business inventories (line 1b of table 10 of *Bulletin 52*) minus depreciation and depletion (line 2 of table 10 of *Bulletin 52*).

From Kuznets' letter of June 26 it appears that in this section in the first draft Keynes listed the same gross business capital formation, i.e. exclusive of parts, repairs and servicing and repairs and maintenance of business construction and excluding changes in business inventories, but then listed two lines of deductions, not only the depreciation and depletion figure but also, in a separate line, figures for parts, repairs and servicing and repairs and maintenance of business construction (which is equal to line A2a of table 8 minus line 1a of table 10 in *Bulletin 52*). Kuznets advised Keynes either to present a gross business capital formation figure including parts, repairs, etc. but then to have a single depreciation figure including parts, repairs, etc. or to present a gross business capital formation figure without parts, repairs, etc. but then not to include parts, repairs, etc. in the depreciation figure. Keynes accepted the latter approach that Kuznets recommended in the page proof version and in the *Economic Journal* article, and used current price depreciation and depletion figures of Fabricant that Kuznets enclosed in his June 26 letter. There are only minor differences between the text in the page proof version and the *Economic Journal* version of this section.

4 *Business Inventories*

Keynes does not have a business inventories figure in Table 1 above. Kuznets, in his letter of June 26, refers to Keynes using net change in business inventories figures from line A5 of table 5 of *Bulletin 52* in his first draft, but Kuznets implies that Keynes did not include these figures in the summary table of net investment. Kuznets said that Keynes's description of the derivation of these figures is misleading, though. Kuznets quotes Keynes as saying that Kuznets obtained changes in inventories for 1932 in 1929 prices 'by applying a price correction factor to the *difference* between inventories at the end of 1931 at 1931 prices and inventories at the end of 1932 at 1932 prices' (Keynes 1979, p. 197).

In his letter of June 11 to Kuznets, Keynes had enquired whether he had interpreted Kuznets' procedure for deriving these figures correctly, and asked if Kuznets had the data to derive the figure Keynes required, '...namely the difference between the aggregate of inventories at the beginning of each year and the aggregate at the end, both aggregates being calculated at the same price level?' (*ibid.*, p. 193). Kuznets responded that this was how the figures in *Bulletin 52* had been derived, and advised Keynes that he could use the figures in his 'summary of net investment on page 8' (*ibid.*, p. 197).⁵

In the page proof version Keynes did include these figures in the summary table. The inventory figures for the last five years were revised in the *Economic Journal* article, based on a last-minute telegraph from Kuznets. The text in this section in the proof version is very short, as it is in the *Economic Journal* article. The text after the table in the proof version is completely different from the text after the table in the *Economic Journal* article. In the proof version Keynes described the way in which the 1932 figure is derived, based upon Kuznets' description in his letter.

5 Public and Semi-Public Agencies

Based on Kuznets' letter it appears that in the first draft Keynes here presented Kuznets' data on public and semi-public agencies from line A3 of table 8 of *Bulletin 52*. There is no separate figure for 1933 in *Bulletin 52*. The public and semi-public agency figure is summed with the unallocable figure for 1933 on line A4 and a total for the two of \$3604 million is given. Since Keynes estimated the unallocable figure (i.e. Foreign and Miscellaneous) for 1933 in Table 1 above as \$1000 million (this will be discussed below), presumably he estimated the public and semi-public agency figure for 1933 as equal to \$2604 million. Kuznets recommended that Keynes use only the public construction data, which were on line 22 of table 11 of *Bulletin 52*, and provided a figure for 1933.

Keynes had asked in his June 11 letter if Kuznets had any estimate of net loan expenditure by public and semi-public authorities. Kuznets provided data on the net change of public debt outstanding that he thought would best serve Keynes's purpose. As Kuznets recommended, Keynes used the public construction figures only in the page proof version and in the *Economic Journal* article, and also presented the net change in outstanding public debt figures that Kuznets had provided. The text in the page proof version is the same as that in the *Economic Journal* article.

6 Foreign and Miscellaneous

There are figures for foreign and miscellaneous investment in Table 1 above. For 1925-32 these are from line A4 of table 8 of *Bulletin 52*.⁶ There is no separate figure in *Bulletin 52* for this category for 1933. As was mentioned above, it is combined with the public and semi-public agencies investment figure. Evidently the estimate of \$1000 million for foreign and miscellaneous investment in Table 1 is Keynes's own.⁷

Kuznets, in his letter of June 26, said that the miscellaneous figure (which is unallocable construction in *Bulletin 52*) was most precarious and advised omitting it, simply listing the figure for the net change in claims against foreign countries. That is what Keynes did in the page proof version and the *Economic Journal* article. The text in this section in the page proof version and the *Economic Journal* article is very short. It is the same in both.

7 Aggregate Net Investment⁸

The aggregate net investment table from the apparent first draft is presented in Table 1 above. On this page in the first draft Keynes had a short paragraph simply saying that he was in a position to give figures for three of the main categories of net investment '(b)ut to obtain a complete total we still lack figures for net investment or disinvestment in business inventories, and for net loan expenditure by public and semi-public authorities' (*KP*, reel 34, p. GTE/2/3/94). There are only minor differences between the discussion in the aggregate net investment section in the page proof version and the *Economic Journal* article. The aggregate net investment tables in the page proof version and the *Economic Journal* article are the same, except that the business inventories figures for 1929-33 are different, as was mentioned above, and the net loan expenditure category is entitled 'Net loan expenditures on public construction' in the page proof version (*KP*, reel 34, p. GTE/2/3/92).

As should be obvious from the above discussion, there is very little doubt that the two pages in the *Keynes Papers* (reel 34, pp. GTE/2/3/94-5), which include

Table 1 above, are from the first draft of the ‘Fluctuations’ article. There is the direct evidence of Kuznets referring to the summary of net investment as being on page 8. But even more telling are the various references to table 1, including the title of the table, the titles of the categories of net investment included, the data series included and the data series not included, and the actual data series in the table.

III Developments Upon Which the First Draft Sheds Light

I Keynes’s and Kuznets’ Collaboration

The reconstruction of the first draft of Keynes’s ‘Fluctuations’ article in the previous section fills in the missing piece in the exchange of letters between Keynes and Kuznets in 1936 about this article. It shows what Keynes did in his first draft and helps to explain Kuznets’ comments about the first draft. It is interesting to note that Kuznets gave such detailed and extensive comments on Keynes’s estimates of investment, but said nothing about Keynes’s estimates of the multiplier in the first draft (which will be discussed below).

In his letter of 26 June 1936 Kuznets made a number of specific suggestions to Keynes, ranging from 1) change the title of section 2 from ‘Consumers’ Residential Construction’ to ‘Residential Construction’, 2) simplify the presentation of business fixed capital, 3) use certain data series, for example that the net change in outstanding public debt would best represent Keynes’s concept of ‘net loan expenditure’, and 4) omit certain data series, such as construction by semi-public agencies and also unallocable construction. Keynes adopted all of these recommendations by Kuznets. The only comment by Kuznets that Keynes did not act upon – and it was not a specific recommendation – was when Kuznets wrote, ‘I would be more inclined than you appear to be to include at least a substantial portion of consumers’ durable commodities under investment’ (Keynes 1979, p. 194).

In the preface to *The General Theory* Keynes wrote that ‘(i)t is astonishing what foolish things one can temporarily believe if one thinks too long alone, particularly in economics’ (Keynes 1974, p. xxiii). This has been interpreted as referring to Keynes’s writing the *Treatise on Money* with little constructive criticism from others (Patinkin 1976, p. 55). The role of Harrod, Hawtrey, Joan Robinson, Robertson, and especially Kahn as commentators and critics during Keynes’s writing *The General Theory* has been extensively studied.⁹ The record of the role of these commentators and critics is typically incomplete, though, as usually not all of it was in writing. For example, during the long vacation in the summer of 1934 Kahn visited Keynes’s country home, Tilton. On 9 September 1934, Keynes wrote to his mother: ‘I plough on every day with my book and will begin to get into print before the end of the month. Kahn has just left after a longish visit – as usual he was extraordinarily helpful...’ (KP, reel 131, p. PP/45/168/10/152).

Keynes’s collaboration with Kuznets on his ‘Fluctuations’ article is apparently all in writing, though. The reconstruction of the first draft of the article fills in the one missing component. It allows us to see in its entirety Kuznets’ role in Keynes’s writing of this article. As has been seen, Kuznets made a number of recommendations for changes to the first draft. Keynes adopted almost all the recommendations that Kuznets made.

When Keynes prepared the second version of this article, the page proof version for the *Economic Journal*, there were only three points with respect to

which he differed from Kuznets. In the first draft of the article Keynes had used original cost depreciation charges to estimate net investment, as Kuznets had in his original article. In his letter to Keynes of 26 June 1936, Kuznets had presented tables showing gross and net investment for various categories of investment also using original cost depreciation charges, which were from a National Bureau of Economic Research *Bulletin* by Solomon Fabricant that was about to be published (Fabricant 1936). Kuznets also included in footnotes, though, current (reproduction) costs depreciation charges data from Fabricant. In the page proof version of the article Keynes used depreciation at current reproduction costs to derive the net investment figures. When he sent Kuznets the page proof version of the article Keynes asked: ‘...I have reckoned depreciation at current reproduction costs, and not in terms of original cost. Is not this correct?’ (Keynes 1979, p. 201).

Second, as mentioned above, Kuznets had said he would have been more inclined to include a substantial portion of consumers’ durable commodities under investment than Keynes was. Finally, the third case in which Keynes differed from Kuznets was that Keynes entered a serious caveat as to the accuracy of Kuznets’ business inventories figures (*ibid.*, p. 202).

So with the reconstruction of the first draft of this article we apparently have a nearly complete record of Keynes’s writing of the ‘Fluctuations’ article, and Keynes’s and Kuznets’ collaboration. It shows Keynes very receptive to and willing to accept Kuznets’ recommendations.¹⁰

2 *The Development of and Use of National Income Accounts*

The General Theory gave impetus to the development of national income accounts along Keynesian lines, emphasising national income and product by final use, consumption and investment. As accounts were developed they were extensively used to analyse key Keynesian concepts such as consumption, investment, liquidity preference, the marginal propensity to consume and the multiplier.

Keynes’s role in both the development and use of national income accounts is of interest (see, for example, Cuyvers 1983, pp. 629-36; Hicks 1967, pp. 190-1; Patinkin 1982, pp. 230-9, 243-8; Stone 1978, pp. 62-72). Keynes was a strong proponent of the development of national income accounts.¹¹ Stone describes Keynes’s interest in, and support for, his work in developing national income accounts during World War II (Stone 1978, pp. 68-72). And Keynes himself, in collaboration with Erwin Rothbarth, developed estimates of certain components of the national income accounts that he used in developing and advocating his scheme for deferred pay in 1939-40¹² (Keynes 1972, pp. 367-439).

The reconstructed first draft of the ‘Fluctuations’ article developed here provides additional evidence with respect to Keynes’s role in the development and use of national income accounts for an earlier episode. It fills in the missing piece concerning Keynes’s development of estimates of gross and net investment with the collaboration of Kuznets.

3 *Keynes’s Estimates of the Multiplier for the United States*

In *The General Theory* Keynes used the estimates of net investment that he presented, based upon Kuznets’ data, to estimate the value of the multiplier for the United States. It appears that in the first draft of the ‘Fluctuation’ article he used the revised investment data to reestimate the value of the multiplier for the United States. After the net investment table on the two pages of the apparent first draft there is only one paragraph. It reads:

If figures for the two missing categories could be added to the above, and if we could then compare the fluctuations in investment with the fluctuations in income, we could attempt a calculation of (*sic*) the multiplier for the United States. In my *General Theory* p. 28 (*sic*) I mentioned that Mr Kuznets' figures suggested a multiplier of less than 3, and I added that this implied a marginal propensity to consume 'surprisingly, and, in my judgment, improbably low for the slump'. It is now clear, however, that this improbable result was due to my misinterpreting Mr Kuznets' figures, and it now seems likely that, when we have the complete figures, the multiplier will work out considerably higher than 3. (*KP*, reel 34. pp. GTE/2/3/94-5).

So with the reconstruction of the first draft of the 'Fluctuations' article comes the discovery of an additional, apparently unknown, estimate of the multiplier for the United States by Keynes.

This new estimate of the multiplier by Keynes is important with respect to the controversy over Keynes's estimates of the multiplier for the United States in *The General Theory* and in the 'Fluctuations' article. Mainly based upon these latter two estimates, Patinkin has accused Keynes of 'sometimes succumb(ing) to the temptation to bend the data to fit his preconceptions' (Patinkin 1982, p. 238).

Kent (2003) analyses four estimates of the multiplier for the United States made by Keynes, including the one in the first draft of the 'Fluctuations' article reconstructed in this paper that is quoted above, and concludes that Keynes did not succumb to the temptation to bend the data to fit his preconceptions in his estimates of the multiplier for the United States in any of the four estimates, including those in *The General Theory* and in the 'Fluctuations' article that Patinkin criticised.

IV Conclusion

In this paper Keynes's first draft of his September 1936 article in the *Economic Journal*, 'Fluctuations in net investment in the United States', is reconstructed from what appear to be the final two pages, pages 8 and 9, of the first draft and correspondence between Keynes and Kuznets. It would not be surprising if Keynes only had one corrected copy of the first draft after he sent a copy to Kuznets, and then used pages 1 to 7 of that corrected copy as he revised the paper based on Kuznets' comments.¹³ That would explain why pages 8 and 9 of the first draft have survived but apparently not pages 1-7.

The reconstructed first draft provides the missing component of Keynes's collaboration with Kuznets in the writing of 'Fluctuations in net investment in the United States' and further evidence concerning Keynes's role in the development and use of national income accounts. This reconstructed first draft is also important in the controversy over Keynes's estimates of the multiplier for the United States, which he made in *The General Theory* and the 'Fluctuations' article.

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Notes

- 1 This sentence, with one minor change in wording, is in the typed insert to the first galley proof of *The General Theory* where Keynes added the section about Kuznets' investment data (*Keynes Papers*, (KP), reel 35, pp. GTE/6/1/79-82).
- 2 Hawtrey also had reminded Keynes about the depreciation on durable consumers' goods. In a letter dated 7 November 1935, commenting on the galley proofs of *The General Theory*, Hawtrey said, 'I do not know how Kuznets gets his figures, but I suppose they include durable consumers' goods. If so, ought not the depreciation and upkeep of these goods to be deducted?' (Keynes 1987, p. 600).
- 3 The figure for Foreign and Miscellaneous Investment for 1925 is \$2,891 in line A4 of table 8 of the National Bureau of Economic Research's *Bulletin 52*.
- 4 This exact quote is also in the page proof version of this article (KP, reel 34, p. GTE/2/3/91).
- 5 Note that the page that has the aggregate net investment table on it in the *Keynes Papers* is numbered 8.
- 6 As was mentioned above, the 1925 figure should be \$2,891.
- 7 A number of authors have commented about Keynes's 'good intuitive grasp of statistical orders of magnitude...' (Moggridge 1992, p. 553) Keynes's apparent willingness to estimate a value for foreign and miscellaneous investment for 1933 and to estimate values of depreciation for consumers' residential construction are two specific examples of this.
- 8 This section is numbered (6) on the first of the two pages from the apparent first draft (KP, reel 34, p. GTE/2/3/94) and in the page proof version (KP, reel 34, p. GTE/2/3/92). See the discussion above.
- 9 For example, see Marcuzzo (2002, pp. 421-47), Moggridge (1973, pp. 75-85; 1992, chapter 21), Patinkin (1976, chapter 7) and Skidelsky (1992, chapters 13-4).
- 10 Harrod, discussing Keynes's revisions of *The General Theory* in 1935, also says Keynes '...showed considerable readiness to accept suggestions' (Harrod 1963, p. 451).
- 11 See Patinkin, though, who criticises Keynes for not doing as much as he could have done to support the development of national income accounts (Patinkin 1982, pp. 248-54).
- 12 Cuyvers (1983, pp. 629-36) attempts to delineate the respective roles of Keynes and Rothbarth in this collaboration.
- 13 For example, in the letter to the printers dated 13 September 1934, when Keynes sent the first three chapters of *The General Theory* to have the first page proofs set up, he said, 'I should be much obliged if these particular chapters could be returned to me within about a fortnight, since I shall be needing them for lectures and have no other corrected copy' (KP, reel 34, p. GTE/3/10).

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