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**Crises in the Economics Tripos in the 1910s:
Keynes's 'Transformation' between Moral Science and Modern
Economics**

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Section 1 Introduction: An Establishment of the Economics Tripos

Alfred Marshall (1842-1924), the Chair of Political Economy at the University of Cambridge since 1884, finally established the Economics Tripos in 1903, following a long struggle against internal opponents, including Henry Sidgwick (1838-1900) in particular. This was a new start for modern economics, making a sharp demarcation from moral sciences. However, since Marshall was planning to retire his professorship to free more time for his writings, it was envisaged that his pupils (Pigou, Keynes, Fay, Clapham, and Layton) should carry on subsequent operations and (if any) revisions of the Tripos after 1908.

Here, we have vital questions: did they take over from their mentor his initial intent? Or, did they make a slight (or serious) change to the Tripos? Behind these questions, we are much concerned with the professionalization of economics: Marshall had pressed forward with a transformation from political economy—or one of moral sciences—into economic science, or economics, since his inauguration as professor in 1884; meanwhile Hicks and Samuelson, among others, advanced ‘modern economics’, based on (in part at least) Robbins’s ‘scarcity’ definition of economics, which has long been the central stream among professional economists after WWII. Nevertheless, we have not yet created a detailed picture of the transitional period between the two movements. What happened in economics education after Marshall? This is why we shall focus on the Cambridge economists, the centre of economic studies at that time, after 1908 but before the Keynesian Revolution.

This paper targets the relationship between Marshall’s original design of the Economics Tripos and the revision(s) by his pupils, including Keynes, around 1910. The most effective method of fulfilling its purpose is to investigate the minutes of the Special Board for Economics and Politics. The Board, consisting of several members—including the Chair, the Secretary, ordinary members (professors and lecturers), and special members (Tripos examiners)—was an autonomous body that managed the

curriculum and examinations. The minutes of this Board clarified internal information, especially when the Secretary was Keynes (1910-1915).

The target period is roughly confined to several years between 1905 and 1911: from the starting year of the Tripos to the actualized year of the revised one. From 1908 onwards, new dons joined the economics group in Cambridge: Pigou, Keynes, Fay, Clapham, and Layton. It was they who needed to have the initiative to manage or change the economics course.

The remainder of this paper is organized as follows. Section 2 discusses Marshall's multiple intents to establish the Economics Tripos; to this end, it references actual exam papers. Section 3 outlines the five stages of the revisions in the 'regulations' regarding the Tripos subjects. Section 4 draws conclusions by considering Marshall's pupils' conscious or unconscious thinking.

Section 2 Marshall's Curriculum

This section deals with Marshall's initial design for the Economics Tripos. The Tripos, typically divided into Parts I and II, is a University examination leading to an honours B.A. (Bachelor of Arts). We shall examine his complex intent, sometimes by referencing actual examinations.

2-1 Complex Intent

Marshall, who had succeeded in establishing an academic society and a journal for economics from 1884 onwards, attempted to give the discipline of economics independence from moral sciences and history in Cambridge. According to his documents to proclaim reform, Marshall claims that in his time, "economic and social considerations [were] acquiring an ever-increasing influence over thought and action" (Marshall 1902: 4). Since legislative, executive, and diplomatic bodies came to concern themselves so heavily with economic issues, the study of the causes of the wealth of nations was necessary in relation to not only political stability but also the quality of life. As he put it,

We need to study how growing wealth and opportunities may best be turned to account for the true wellbeing of the present and coming generations. (Marshall 1902: 7)

Marshall's intent to establish an independent Economics Tripos was by far more complex than it had appeared. Here, by considering defensive and offensive responses and layers superficial and deep, we shall classify four elements vis-à-vis his intentions.

First, economics should be liberated from metaphysics (Intent A). In old universities like Cambridge and Oxford, theology, philosophy, and ethics had each had a role in integrating and dominating every other discipline. Marshall, however, criticized these disciplines, saying things such as "Philosophy is nearly where it was 20 years ago", and "That is why the Mo[r]al Sc[i]ences Tripos has been ruined". Historical economics is more important than philosophical economics, but it still is not economics itself. For Marshall, a scientific study was necessary, the "study of existing economic facts and contemporary changes"¹.

Second, economics should be developed so as to garner broad support from outsiders, who are interested in higher education and ready to show financial support (Intent B). There was "a tendency towards greater breadth and diminished specialization in the work of heads of business, of directors of companies, and of the higher public officials" (Marshall 1902: 8). That is to say, Oxford and Cambridge had to give a broad education, and not a technical training, for the 'Captains of Industry'. If the old universities did not respond to the requests of business and public offices, their interest and money could move to newly established universities such as London School of Economics and Political Science (1895) and the University of Birmingham (1900). Of course, education in Cambridge was not intended for practitioners of perfectly practical affairs such as accounting and

¹ All citations in this paragraph are from Whitaker (1996 II: 194; Letter 532), to John Neville Keynes, 30 August 1897.

bookkeeping; rather, it was intended to bestow “an extensive knowledge of *facts ie big facts*”. The “most important equipment of an economist” was to “understand how a sense of proportion is” and to be realistic².

Third, students in the economics course should develop their ‘faculty’ (Intent C). Marshall defined a liberal education as one which,

“trains the intelligence, gives elasticity to the faculties of the mind, humanizes the character; and forms, not merely an expert, but an efficient man”. The curriculum in Economics and associated studies claims to do this. ... it exercises the three great faculties, observation, imagination, and reasoning (Marshall 1906: 6).

Thus then economics is a stringent discipline in seeking for causes and for results which lie below the surface, and are not easily seen (Marshall 1903: 11)

Economic studies call for and develop the faculty of sympathy. ... This sympathy between classes is being developed by studies, which are becoming every day more urgent ... (Marshall 1906: 7).

His definition of a liberal education does not approach the classical meaning³; instead, it more closely resembles the definition of J. S. Mill⁴. Marshall’s originality is in his combination of a liberal education with a specified or professional education. Working together, economics and other branches work hand-in-hand and have a synergistic effect.

Four, students should master ‘economic organon’—i.e. methodological principles or machinery in economics (Intent D)—which “shows how to analyze the motives at work, how to group them, [and] how to trace their mutual relations” (Marshall 1925 [1885]: 164). Even after citing the

² All citations in this paragraph except Marshall 1902 are from Whitaker (1996 II: 353), to John Neville Keynes, 6 February 1902 (*italics is original*).

³ Until the late 19th century in Cambridge, a liberal education “did not imply breadth of education since ... one or two subjects was ... the only way to secure the rigour and discipline required” (Sanderson 1975: 24).

⁴ “Their [Universities’] object is not to make skilful lawyers, or physicians, or engineers, but capable and cultivated human beings” (Mill 1867: 4).

various aforementioned motives, Marshall must have placed more emphasis on the cultivation of academic economists: he had to keep “the head cool and clear in tracing and analyzing the combined action of many combined causes” (Marshall 1925 [1885]: 171). The mastery of ‘economic organon’ does not align with highly specialized and narrowly confined studies. Marshall preferred both simplification (towards the unifying principle) and diversity (realistic phenomena). As he put it:

[The economist] should learn how things, which seem alike and are called by the same name, are often really dissimilar; and how those, which seem dissimilar and are called by different names, are often fundamentally alike. He should seek for the Many in the One, and the One in the Many (Marshall 1902: 13).

Intents A and B are relatively passive or defensive elements, whereas Intents C and D are rather positive or offensive ones. The complex elements reflect Marshall’s twofold motivation: to articulate his ideal education in economics, and to properly deal with counter opinions inside and outside the university.

Marshall’s desire for an independent Tripos seems to float between classical and modern universities. On the one hand, it seemed to resemble a liberal education, which was by far remote from the practical profession education as J. S. Mill proscribed in 1867. On the other hand, it considered the requests from the business world—that is to say, to cultivate realistic senses. Economics was one of the new disciplines, separate from mathematics, classics, or history; however, it was also distinguished from more practical ones, such as commerce, accounting, public administration, dental surgery, architecture, veterinary medicine, engineering, teacher training, and mining (see Engel 1983: 298-299).

2-2 Schedule of Subjects

For our investigation here, it is more important to examine the practical schedule of subjects, together with those regulations. Although Marshall

retained a few plans, we confine our investigation to the final plan of 1903 (Marshall 1903: 30).

Part I	Subjects for an Essay.	1 paper	c
	The existing British constitution.	1 paper	c
	Recent Economic and General History.	2 papers	c
	General Principles of Economics.	3 papers	c
Part II	Subjects for an Essay.	1 paper	c
	General Economics.	3 papers	c
	Advanced Economics, mainly realistic.	2 papers	s
	Advanced Economics, mainly analytic.	2 papers	s
	Modern Political Theories.	1 paper	s
	International Law with reference to existing political conditions.	1 paper	s
	International Law with reference to existing economic conditions.	1 paper	s
	Principles of Law as applied to economic questions.	1 paper	s
	Special subject or subjects.	1 paper each	s

Table 1: The Final Plan of Economics Subjects, 1903

Part I of the Tripos is generally allocated to the second year of studies. All seven papers (four subjects) are compulsory; in addition, “A knowledge of French or German is expected of all candidates” (Marshall 1903: 24). ‘Subjects for an Essay’ offers a list of a few short, question-style topics. For instance, at the first Tripos held 30th May 1905, there were six questions such as ‘The economic interpretation of history’, ‘The causes and effects of the growth of large cities’, ‘Things are in the saddle and ride mankind’, ‘Smithianisumus’, ‘The influence of finance on international politics’, and ‘The future of the yellow races’⁵. Only one question had to be answered during 13:30 to 16:30. The examiners were Neville Keynes,

⁵ *Cambridge University Examination Papers* [hereafter as *CUEP*], Michaelmas Term, 1904 to Easter Term, 1905, volume XXXIV, p. 417.

Dickinson, Clapham, and Pigou⁶. Judging from these questions, this subject was intended to test the general faculty of candidates.

‘The existing British constitution’ deals with the contemporary political and administrative organization (central and local) of Britain. ‘Recent Economic History chiefly deals with Britain and the 19th Century. ‘Recent General History’ deals with the British Empire, continental Europe, and the United States, and chiefly with the 19th century. ‘General Principles of Economics’ was divided into three papers, I, II, and III. In the case of 1905, each paper had 10 questions, of which the candidates needed to answer seven. Paper III was divided into two groups (A and B) and the questions in group B included citations in French or German. The Tripos continued for five days from 27th May 1905 to 1st June 1905, lasting a total of 21 hours.

Part II of the Tripos began for the first time on 28 May 1906. ‘Subject for an Essay’ in Part II was the same as that in Part I. General Economics I, II, and III were compulsory. For those who had taken another Tripos, these papers were necessary to secure a sound knowledge of economics at large. Those who had taken Part I of the Economics Tripos “should not specialize even their later studies too narrowly” (Marshall 1906: 10). In those papers, special attention was paid to public finance and the economic functions of government, at both the local and the national level: “The papers shall also include questions on the ethical aspects of economic problems” (Marshall 1903: 32). A variety of questions actually derived from this subject: difficulties in defining wealth and capital (I-1.), the advantages of co-operative production (I-2.), the theoretical assumptions when the doctrine of consumers’ surplus can be applied to practical problems (I-4.), the meaning of ‘long period’ (II-1.), the value of the precious metals (II-6.), “What do you regard as the fundamental economic characteristics of a developed society?” (II-10.), and “What is a ‘fair’ tax?” (III-A-1.), among others⁷.

⁶ *Cambridge University Reporter* [hereafter as *CUR*], 15 November 1904, p. 241.

⁷ *CUEP*, 1905 to 1906, volume XXXV, pp. 419-434.

In addition to the four compulsory papers, ‘Advanced Economics I and II’ were what Marshall had elaborated as being part of a proper curriculum. There were two standards for the subject. The first standard was to distinguish ‘realistic’ from ‘analytic’: the former aspects were necessary to those who were preparing for public or private business; the latter, a more academic character, was needed to be a professional economists. The analytic questions should include (a) the more entangled problems of value, (b) the history of economic doctrines⁸, and (c) mathematical problems in economics and statistics (Marshall 1903: 33; Marshall 1906: 11). The second standard was to proportionally cover the following four areas in both categories: A. Structure and Problems of Modern Industry, B. Wages and Conditions of Employment, C. Money, Credit and Prices, and D. International Trade and Its Policy. In reality, there were a variety of questions: the method of determining the ‘poverty line’ (I-4.), the exchange value of the rupee (II-1.), the normal excess of exports in America and in Russia (II-3.) and others were categorized as ‘realistic’; the history of the theory of value, with special reference to J. S. Mill, Walras, and Bohm-Bäwerk (I-A-1.), “Ought municipal undertakings to aim at making a profit?” (I-A-2.), determining the elasticity of the British demand for tea (II-2.), the average level of prices and the rate of interest (II-13.) and others were categorized as ‘analytic’.

Regarding ‘Advanced Economics’, mainly realistic or mainly analytic, “no candidate shall take one of the two papers ..., unless he also takes the other paper” (Marshall 1903: 31). This means that candidates could not select one paper as realistic and another as analytic. Thus, a student’s “studies need to be broad: but he may reasonably specialize to some extent on any one, or even any two of the four” (Marshall 1906: 12). The intention of this specification was to secure some specialized studies based on a broader knowledge.

Other subjects were optional. ‘Principles of Law’ as applied to

⁸ “The history of economic doctrine should be another optional subject” (Marshall 1902: 16).

economic questions had not been in effect for four years but was again in effect in June 1910. ‘Modern Political Theories’ dealt with the latter half of the 18th century and with the 19th century. Concrete questions touched upon social organizations that override individual wills (Herbert Spencer) (A-1.), the Utilitarians and individualism or democracy (A-3.), and “How far does the economic theory of German socialism lead logically to political democracy?” (A-7.)⁹. ‘International Law with reference to existing political, or economic, conditions’ is not referenced in the supplemental regulations and was not in effect until 1907. ‘Special Subject or Subjects’ deals with the recent economic and general history, or with the existing political and administrative organization. The Special Board had to announce a special topic in advance—say, one year previous¹⁰. In 1906, the topic was ‘The causes and remedies of Indian famines’, and it included 10 questions¹¹.

The schedule of subjects was actualized in this manner. Law subjects were considered less important, despite of their number. While some of them were not in force, others were in effect at the same time as economic subjects¹².

Section 3 Five Phases of the Revisions

This section discusses the five stages of revising the Economics Tripos. We shall divide the period of November 1910 to May 1911 into five phases.

3-1 Four Examiners

The four examiners of the Economics Tripos in 1910 were appointed by the Senate on the nomination of the Special Board, on 25 November

⁹ *CUEP*, 1905 to 1906, volume XXXV, p. 427.

¹⁰ *CUR*, “Economics Tripos, Part II, Special Subject”, 6 June 1905, p. 984.

¹¹ *CUEP*, 1905 to 1906, volume XXXV, pp. 433-434.

¹² For instance, ‘Advanced Economics, mainly analytic’ and ‘International Law’ were held at the same time on Thursday. *CUEP*, 1906 to 1907, volume XXXVI, pp. 423-438.

1909: H.W.V. Temperley (Chairman¹³), J.S. Nicholson, C.P. Sanger, and C.R. Fay. They automatically belonged to the Special Board¹⁴, although Temperley and Fay were originally insiders who had taken some office in Cambridge. The other two were outsiders, but pupils of Marshall's.

In November 1910, the four examiners made a printed report (private and confidential) to the Special Board, after they fulfilled their own examination duty in May and June 1910. They highlighted approximately three shortcomings of the Tripos. First, students tended to read too much in a superficial manner and not to study the texts deeply and critically; for this reason, it was recommended that the total number of recommended books should be reduced. Second, it is seriously inadequate both to draw a sharp boundary between analytical and realistic economics, and to divide four areas (A., B., C., and D.) in economics. Regrouping was necessary. Third, students tended to be disturbed by French or German questions; it was recommended that the translation questions should be abolished. In addition to these three points, they advocated various minor points: with regard to 'Recent Economic and General History', the paper in Part I should deal exclusively with the recent events of the United Kingdom. Rather, first hand documents such as the Poor Law Report of 1834 or Gladstone's financial statements should be referred to. As to 'General Principles of Economics' in Part I, as well as 'General Economics' in Part II, the title and subject matter should be reconsidered. Regarding 'Advanced Economics', "a regulation should be drafted that the subjects of the papers in Advanced Economics should include questions both on realistic and analytic subjects"¹⁵.

This report was significant with regard to the revisions to the Tripos. It was the starting point of subsequent discussions that resulted in changes in 1913 to the schedule of subjects and its regulations. What is more, the basic

¹³ *CUR*, "Chairman of Examiners appointed", 7 December 1909, p. 326.

¹⁴ The office begins 1st January and ends 31st December of the same year. *CUR*, "Special Boards of Studies", 1 October 1910, p. 17.

¹⁵ Min.v.114, "Recommendations of the Examiners of the Economics Tripos of 1910" (no date) by H. W. V. Temperley, J. S. Nicholson, C. P. Sanger, and C. R. Fay, Printed, annexed between p. 148 and p. 150.

ideas of the report including the above three points were accepted by the other members and ultimately remained unchanged. Among the four examiners, it was probably Fay who took the initiative to reform, because only Fay—one of the insider dons in Cambridge, unlike Nicholson and Sanger—taught both economics and history to candidates of the Tripos¹⁶ and had been an ardent reformer of university matters, including the women’s degree¹⁷. Temperley, a liberal historian of 18th and 19th-century British constitutional history, did not teach any subject in the Economics Tripos when the report was published, though he was the Chair of the Examiners¹⁸. Sanger, “a brilliant student of Marshall” (Groenewegen 2012: 38), made an independent memorandum on the Principles of Law, but not in economics terms, because his interest had shifted into legal affairs. Nicholson’s role is not clear: he had been a pupil of Marshall, but later became very critical (Groenewegen 2012: 22).

The Board discussed this report seriously. Keynes, Secretary of the Board at that time, recorded as follows:

The Recommendation of the Examiners of 1910 regarding to the Economics Tripos, and Mr Sanger’s memorandum regarding to the papers on Principles of Law in Part II were received and discussed¹⁹.

This marks the beginning of the discussion. Keynes again records on 11 November 1910:

The following Committee was appointed to consider a general scheme of revision

¹⁶ Fay was in charge of Economics (three terms) and English Economics History during the 19th Century (Michaelmas and Lent Terms), both for the first-year students. *CUR*, Lecture List, 10 April 1910, p. 814.

¹⁷ See Komine (2012). Marshall’s personal supervision had a great impact on him. Groenewegen (2012: 148).

¹⁸ See Simms (2010 [2004]). Temperley began to lecture Papers on the existing British Constitution from Lent Term 1911. Min.v.114, “Lectures proposed by the Special Board for Economics and Politics, 1910-11”, annexed between p. 170 and p. 172.

¹⁹ Min.v.114, 39th Meeting, Section 4, MS [Keynes’s own handwriting], 11 November 1910, p. 150.

for Part II of the Tripos: -

Prof. Pigou

Mr Dickinson

Mr Clapham

Mr Fay

Mr J. M. Keynes²⁰

3-2 Sub-Committee: Round 1

The appointed five members made a report dated 26 November 1910. This report was exclusively important, because the revised schedule of subjects were revealed for the first time, and became open for discussion.

1. Essay.	c
2. Economic Principles.	c
3. Structure and problems of modern industry, national and international.	two
4. Distribution and Labour.	papers
5. Money, Credit and Prices, national and international.	from
6. Economic functions of government (central and local) and of philanthropic bodies.	3/4/5/6
7. History of English economic theory with special reference to specified authors.	s
8. Political Science.	s
9. The law of contract in English.	s
10. The law of real property in English.	s

Table 2 Revision (1), 26 November 1910

Papers 1 and 2 were compulsory. Candidates also needed to compose four other papers, of which at least two papers had to be chosen from among papers 3, 4, 5, and 6. Papers 9 and 10 were a pair: it was impossible to answer only one of the two papers. Papers 3, 4, and 5 were intended to

²⁰ Min.v.114, 39th Meeting, Section 5, MS [Keynes's own handwriting], 11 November 1910, p. 150.

cover the areas A., B., C., and D. of the existing ‘Advanced Economics’. Only D. (international trade) seemed to disappear, but its contents had been distributed between Papers 3 and 5. The three papers were intended to include both analytical and descriptive characteristics, and contain questions on statistics. Paper 2 in particular was intended to secure from all candidates a sound knowledge of the machinery of economics²¹.

The report seemed to make Marshall’s curriculum clearer by applying concrete names to the subjects, such as industry, labour, and money. The economic functions of government and history of economic theory became more explicit, which were also his original subject-areas meant to prepare for either the business or academic worlds—although the history of economic theory was merely optional, as was political science or law. Note also that the objects within which candidates needed to consider economic functions comprised not only government but also philanthropic bodies. These changes imply Marshall’s attitude: he regarded the COS as important bodies that support workers’ physical and mental fulfillment.

This report was discussed on 2 December 1910. During the meeting, an important amendment was suggested:

The Report of the Committee on a general scheme for Part II of the Economics Tripos was received; and after comments on the report from Prof. Nicholson, Mr Sanger, and Mr Layton had been communicated to the Board, the Report was accepted with the following amendments: -

Paper 9 Public International Law

Paper 10 A Special Subject or Subjects on Economic History or Political Science

in place of the two papers on English law proposed by the Committee²².

²¹ Min.v.114, “Report to the Special Board for Economics and Politics of the Committee appointed to consider a general scheme for the Economics Tripos” (dated 26 November 1910) by A. C. Pigou, G. Lowes Dickinson, J. H. Clapham, J. M. Keynes and C. R. Fay, annexed between p. 152 and p. 154.

²² Min.v.114, 40th Meeting, Section 3, MS [Keynes’s own handwriting], 2 December

According to the minutes of that day²³, Nicholson and Sanger were absent (they had a right to attend, as examiners), whereas Layton was also absent because he was not a member of the Board. Nevertheless, the means of decision-making within the Board seemed to be democratic, since broad voices were heard from outside the Board.

The Board decided to revise the schedule of subjects and its regulations of the Economics Tripos, especially in Part II:

The following Committees were then appointed to consider the proposed changes in proper [?] detailed: -

Committee (a) to consider papers 2-5, and 7 in Part II and the Economic papers in Part I

Committee (b) to consider papers 8 and 9 in Part II and the paper on the British Constitution in Part I

Committee (c) to consider papers on General and Economic History in Part I, the paper 6 of Part II to be considered by Committee (a) and (b) jointly;

Committee (a) Prof. Pigou, Mr Clapham, Mr J. M. Keynes

Committee (b) Mr Dickinson, Mr Temperley, Prof. Oppenheim

Committee (c) Mr Fay, Mr Clapham, Mr Benians²⁴

3-3 Sub-Committee: Round 2

The three sub-committees jointly made a report, dated 31 January 1911, which was discussed at the 42nd meeting of the Board on 3 February 1911. The schedule of subjects was the same as the previous one of the previous November, except with respect to Papers 9 and 10. These names were

1910, p. 154.

²³ The attendants were 10 members: Dr Keynes (Chairman), Prof. Kenny, Prof. Oppenheim, Prof. Pigou, Mr Benians, Mr Dickinson, Mr Fay, Mr Clapham, Mr Meredith, Mr Temperley, and Mr J. M Keynes (Secretary).

²⁴ Min.v.114, 40th Meeting, Section 4, MS [Keynes's own handwriting], 2 December 1910, p. 156.

amended according the results of the previous meeting. The characteristic of this report was to give detailed contents regarding the proposed subjects.

1. Essay.	c
2. Economic Principles.	c
3. Structure and problems of modern industry, national and international.	two
4. Distribution and Labour.	papers
5. Money, Credit and Prices, national and international.	from
6. Economic functions of government (central and local) and of philanthropic bodies.	3/4/5/6
7. History of English economic theory with special reference to specified authors.	s
8. Political Science.	s
9. Public International Law.	s
10. A Special Subject or Subjects in Economic History or Political Science.	s

Table 3 Revision (2), 31 January 1911

Papers 1 and 2 were compulsory, as was the case in the previous plans. Every candidate had to choose at least two subjects from among Papers 3, 4, 5, and 6. Paper 2, entitled as ‘Economic Principles’, should cover a general analysis of demand and supply with regard to the broader problems of wages, interest, rent, foreign trade, money, prices, and taxation. Paper 3 was concerned with the organization and methods of modern industry, such as joint-stock companies, trusts, cartels, cooperative societies, modern methods of transport and marketing, and others. Paper 4 dealt with the relations between employers and the employed, unemployment, and industrial fluctuations, labour exchanges, and other topics. Paper 5 should cover monetary theory, as well as currency and banking systems. Paper 6 was concerned with the policy of central and local authorities (including philanthropic bodies) in relation to industry, taxes, and rates, including justice in taxation, state insurance, treatment of the poor, and others. Paper 7 should cover the history of economic theory, with special reference to

England: more specifically:

In this paper a general knowledge of the development of economic theory shall be required, together with some knowledge of the way in which its development has been connected with contemporaneous history.

The report recommended that the following five books be read by candidates, carefully and in detail: Adam Smith, *Wealth of Nations*; Ricardo, *Political Economy and Essays on Bullionist Controversy*; Malthus, *Essay on Population*; J. S. Mill, *Political Economy*; and Javons, *Theory of Political Economy*.

It was unusual that the members of the Board did not reach within one meeting a conclusion with regard to a received report. It was decided that the report would be returned and that the same sub-committees would reconsider it²⁵. Sub-committees (b) and (c) gave a further report soon, and their recommendations were accepted with minor amendments on 14 February 1911. Sub-committee (b) defined ‘Political Institutions’ in Part I as problems dealing with existing political institutions, with special reference to Great Britain, the United States, the German Federation, and the Swiss Federation²⁶. However, Sub-committee (c) signed by only Clapham and Fay and not by Benians, recommended three points as to ‘Recent Economic and General History’²⁷: first, ‘recent’ should be interpreted to mean ‘mainly since 1800’, and military or literary history should not be included; second, two-thirds of Part I should deal with the United Kingdom, and one-thirds with self-governing colonies and India; and third, two-thirds of Part II should deal with Europe and one-thirds with the United States.

²⁵ Min.v.114, 42nd Meeting, Section 9, MS [Keynes’s own handwriting], 3 February 1911.

²⁶ Min.v.114, “Economics Board.” (no date) by G. L. D. and H. W. V. T., annexed between p. 166 and p. 168.

²⁷ Min.v.114, “Revision of the Economics Tripos” (dated 11 February 1911) by Clapham and Fay, annexed between p. 166 and p. 168.

3-4 Sub-Committee: Round 3

Sub-committee (a) submitted on March 1911 a further report, dated 22 February 1911²⁸. This report was significant to the process of revising the Tripos, in three aspects. First, the subject ‘Economic Functions of Government’, previously Paper 6, was now Paper 3; it became compulsory, together with ‘Subjects for an Essay’ and ‘Economic Principles’. The content of the subject became simpler, dealing exclusively with governmental expenditure to improve production and distribution. Philanthropic bodies and taxation justice were dropped, which meant that ‘ethical aspects of economics’ disappeared, at least on the surface. Second, ‘History of Economic Theory’ was deleted: instead ‘Miscellaneous Economic Questions’ appeared for the first time. This subject should cover the same subject-matters as Papers 4, 5, and 6²⁹. However, according to Clause 10, which referred to the contents of ‘Special Subjects’, Paper 10 could touch on economic history, the history of economic theory, and political science. Thus, the history of economic theory was dropped as a subject name, but still survived as a field name. Third, these amendments were reported “after consultation with Dr Marshall”. In this period, Marshall still had a direct influence on his pupils.

1. Subjects for an Essay.	compulsory
2. Economic Principles.	compulsory
3. Economic Functions of Government.	compulsory
4. Structure and Problems of Modern Industry	one paper
5. Distribution and Labour.	from 4/5/6
6. Money, Credit and Prices.	
7. Miscellaneous Economic questions.	selective

²⁸ Min.v.114, “Economics Tripos Part II, Revised proposals of Committee (a) after consultation with Dr Marshall”, (dated 22 February 1911), annexed between p. 166 and p. 168.

²⁹ For instance, it included the regulations of joint stock companies, industrial combinations, railway and shipping rates, trade unions, banking, and advanced theory of value.

8. Political Science.	selective
9. International Law.	selective
10. Special Subject or Subjects.	selective

Table 4 Revision (3), 22 February 1911

This revision was discussed at the Special Board meeting, and finally accepted after minute amendments and corrections:

1. A further report was received from Committee (a), after consultation with Dr Marshall, on the revision of the Economics Tripos Part II. This report was approved, with the modifications noted on the appended copy of it.
2. Committee (a) with the addition of Mr Dickinson was instituted to draw up a report for the Senate on the proposed revision of the Tripos³⁰.

At last, the process of revising the Economics Tripos (especially in Part II) was virtually finished, following a four-month discussion.

3-5 Final Report

The Special Board discussed on 2 May 1911 the final report on the regulations for the Economics Tripos. There are two documents; one³¹ dated 1 May 1911 and another³² dated 2 May 1911. The difference between the two documents seems slight, but one important point should not be missed. In the final version, Clause 11 (previously Clause 10) was deleted, which means that the field name of the history of economic theory was dropped and not referenced to anywhere in the document. In due

³⁰ Min.v.114, 44th Meeting, Sections 1 and 2, MS [Keynes's own handwriting], 3 March 1911, p. 170.

³¹ Min.v.114, "Draft Report of Sub-Committee (a): Report of the Special Board for Economics and Politics on the Regulations for the Economics Tripos" (dated 1 May 1911), annexed between p. 170 and p. 172.

³² UA/5/1/5-6, "Report of the Special Board for Economics and Politics on the Regulations for the Economics Tripos" (dated 2 May 1911), the Keynes Papers [hereafter as KP], Modern Archives, King's College, University of Cambridge.

course, the final report was complete, and in public through the *Cambridge University Reporter* on 9 May 1911.

The final report to the Senate was open to discussion at the congregation held on 18 May 1911. A member (Mr R.T. Wright) criticized this report by claiming that new regulations merely required less knowledge of Garman and French. Pigou answered:

the Board did not intend to lessen the requirement with regard to foreign languages, but it was a difficult matter to introduce French and German questions into a great many papers.

What is more, Pigou pointed out that the changes were not in opposition to the drafters of the old regulations. For, Dr Marshall wrote to Pigou:

I congratulate you on the Report of the Economics Board, a copy of which has just sent to me by the Secretary [Keynes]. I shall not be in Cambridge when it is discussed in the Senate House: so I will say now that I think all its new proposals are, as it claims, justified by experience³³.

The final report was accepted by the Senate, and the new regulations would come in force from 1913³⁴, instead of the original regulations accepted in 1903.

Section 4 Concluding Remarks

This section deals with the implications of the revisions made to the Economics Tripos around 1910, with special reference to Maynard Keynes. Among the aforementioned documents, there remain no single plans that Keynes signed alone. All documents were signed by multiple members.

³³ *CUR*, “Discussion of Reports” (dated 18 May 1911), 23 May 1911, p. 1056.

³⁴ *CUR*, “Acta” (dated 1 June 1911), 6 June 1911, p. 1130.

Yet, there was one exception—although the document³⁵ was not related to the Tripos but to the Civil Service Examination.

4-1 Keynes's Own Design

Keynes took a memorandum in June 1911 for candidates in Political Economy, Civil Service Examination. It was necessary to design a general course that was similar to that of Political Economy in Part II of the Historical Tripos. However, he pointed out that it needed additional requirements, in three respects. First, one or two questions were needed on statistical methods, at least of which should be compulsory. Second, some questions were set on economic history, of which at least one might be compulsory. Third, says Keynes, “Some knowledge is often required of the History of Economic Theory, but the questions on this part of the subject are not as a rule compulsory”. Keynes mentions several books to be read. Regarding the history of economic theory, he refers to three books: Adam Smith, *Wealth of Nations*, Book IV; Marshall, *Principles of Economics*, Book VI, chapters 1 and 2, and Appendices B, I, J, and L; *Cambridge Modern History*, vol. X, chapter XXIV (The British Economists) written by J. S. Nicholson.

It is also interesting to note Keynes's favorite method of education. As he himself put it:

Fortnightly papers will be set in connexion with it, and I strongly urge Civil Service candidates to work these papers regularly. It is impossible to obtain a proper knowledge of Economics by reading alone and without systematic paper work.

Keynes succeeded with the same method from his mentor Marshall. Groenewegen (1993: 24–25) points out the intimate relationship between the two men: Keynes formally enrolled in Marshall's ‘Advanced Economics’ of the 1905 Michaelmas term, and took classes on Tuesday

³⁵ UA/12/29, “Memorandum by Mr. J. M. Keynes for candidates in Political Economy, Civil Service Examination (Class I)” (dated June 1911), KP.

and Thursday at noon. Further, Marshall gave lectures on ‘some analytic difficulties’ on Saturday³⁶. Keynes recalls his mentor’s didactic method:

I have papers which I wrote for him on which his red-ink comments and criticisms occupy almost as much space as my answers. (Keynes 1972 [1924]: 215, note 1)

Keynes regarded the three subjects (statistics, economic history, the history of economic theory) as fairly important, although the weight he placed on each differed. The subjects and their weight vis-à-vis an economics education were almost the same between Keynes and Marshall. Further, fortnightly paper works were vital for the both Cambridge dons: thus, we can safely claim that Keynes was a faithful follower of Marshall at that time (around 1910)³⁷.

4-2 Summary

Let us now to summarize our discussion on the process of revising the Economics Tripos in 1910–11. The process can be divided into five phases.

First, discussions touching on revisions began immediately following the submission of a report by the four Tripos examiners including C. R. Fay. They recommended changes based on three guidelines: the advancement of deep and restricted learning; abolition of subject distinction based on ‘realistic’ versus ‘analytic’; and the abolition of translation questions. Based on these guidelines, the members of the Special Board continued to discuss the matter from November 1910 to May 1911. In this sense, we need to consider the role of Fay as important, as he was the only one member of the four examiners who gave Tripos lectures on both economics and economic history, and involved in the reform process as an insider.

Second, five members—namely, Pigou, Dickinson, Clapham, Fay, and Keynes—comprised a sub-committee that considered a general scheme for

³⁶ *CUR*, 18 April 1906, p. 698.

³⁷ Thus, it must not have been Keynes who took the initiative to drop ‘History of Economic Theory’ from the Tripos regulations.

Part II of the Tripos. In November 1910, they renamed 10 papers, drastically changing the original subject names in Part II for the first time. Despite drastic changes in their names, the content was faithful to Marshall's intent—or rather the names made it clearer and represented concrete subject-matters in economics like industry, labour, money, and the economic functions of government and philanthropic bodies. The history of economic theory was also included as a subject name.

Third, three sub-committees jointly submitted a report dated January 1911. Sub-committee (a), consisting of Pigou, Clapham, and Keynes, defined the content of the papers in detail. The scope and range of the Tripos questions touched not only on the systematic analysis of supply and demand but also ethical and realistic aspects in economics, such as national insurance, remedies for the poor, justice in taxations, and philanthropic actions, among others. 'History of Economic Theory' remained as Paper 7; on the other hand, Clapham and Fay of Sub-committee (c) restricted the scope and range of economic and general history.

Four, Sub-committee (a) again drafted the memorandum in February 1911. 'Economic Functions of Government' became compulsory and its content was simplified. The name of Paper 7 was changed from 'History of Economic Theory' to 'Miscellaneous Economic Questions'. Instead, Paper 10, 'Special Subjects', came to include the history of economic theory together with economic history, political sciences, and statistical methods. At this point, the ethical aspects of economics disappeared from the Tripos, at least with regard to the stipulated regulations. Note also that on this draft, Marshall himself was consulted.

Five, the final report to the Senate—drafted by Pigou, Clapham, Keynes, and Dickinson—was discussed in May 1911. One seemingly minor but significant point changed, compared to the previous reports. Clause 11 was deleted, to prescribe the contents of Paper 10. This means that the history of economic theory disappeared not only as a subject name but also in terms of content. The final version was accepted by the Senate in June 1911 and would be in force from 1913 onwards.

	Draft date	Release date	Drafters	Characters	HET
Phase 1	No date	11 Nov 1910 39th meeting	Temperley, Nicholson, Sanger, Fay	Three main guidelines	No reference
Phase 2	26 Nov 1910	2 Dec 1910 40th meeting	Pigou, Dickinson, Clapham, Fay, Keynes	First schedule of subject, two compulsory	Paper 7
Phase 3	31 Jan 1911	3 Feb 1911 42nd meeting	Pigou, Clapham, Keynes	Two compulsory, in detail	Paper 7
Phase 4	22 Feb 1911	3 Mar 1911 44th meeting	Pigou, Clapham, Keynes	Three compulsory, no ethical	Clause 10 regarding Paper 10
Phase 5(1)	1 May 1911	2 May 1911 45th meeting	Pigou, Clapham, Keynes, Dickinson		Clause 11 regarding Paper 10
Phase 5(2)	2 May 1911	9 May 1911 <i>CUR</i>	All 12 members		No reference

Table 5 Summary of each phase

4-3 Succession or Escape?

We shall make concluding remarks in reference to Marshall's complex intent to create the Economics Tripos.

Regarding Intent A (i.e. to liberate economics from metaphysics), his pupils did not refer to it. It is natural, since the Economics Tripos had been independent. As to Intent B (i.e. to obtain financial support from the outside), they did not refer to support from business circles: at that time, they denied the creation of a diploma course in Social Study³⁸ (on poverty,

³⁸ Min.v.114, "Social Study Committee" (no date) by G. Lowes Dickinson, A. C. Pigou,

unemployment, philanthropic bodies, and other subjects), a subject that became familiar in newly industrialized cities. Rather, they repeatedly emphasized the need for the university support³⁹. With regard to Intent C (i.e. to establish a new liberal education through economics), by and large, Marshall's pupils eventually differed from their mentor, either consciously or subconsciously. The subject distinction between 'realistic' and 'analytic' was eventually abolished, implying that students preparing for business or public offices had also to engage in specialized economics. Additionally, they integrated four law subjects into one; restricted the scope and range of economic and general history; dropped the history of economic theory; stopped referencing the ethical aspects of economics. They also reduced the number of questions in French or German to a substantial extent. All these changes moved economics from being a branch of human study based on broader and multidisciplinary knowledge (i.e. a moral science). Instead, they concentrated on Intent D (i.e. to master 'economic organon', the grand system of economic analysis). Moreover, they interpreted Intent D as study that focuses on subdivided and restricted areas (modern economics), not economics compatible with both simplification (unified principles) and multiplication (diversity in economies)⁴⁰—an overarching body of subject matter that should be termed 'Marshall's eclecticism'.

Keynes was rather faithful to Marshall: he respected Marshall's curriculum (important subjects such as statistics, economic history, and the history of economic theory) and the way of education (e.g. fortnightly paper works). However, the Board members, including Keynes, decided to revise the Tripos curriculum, with Marshall's consultation. It must have

J. M. Keynes, C. R. Fay and Harold W. V. Temperley, 40th Meeting, 2 December 1910, annexed between p. 154 and p. 156.

³⁹ Min.v.114, "A letter from the Special Board for Economics and Politics to the General Board of Studies (dated 9 May 1907)", annexed between p. 68 and p. 70. Min.v.114, "Memorandum of the Special Board for Economics and Politics on the needs of the Board" (dated 2 December 1910), annexed between p. 146 and p. 148. Min.v.114, "Memorandum of the Special Board for Economics and Politics on the needs of the Board" (dated 2 December 1910), annexed between p. 146 and p. 148.

⁴⁰ Marshall's motto was "the Many in the One, and the One in the Many" (Marshall 1902: 13).

been intended that this change around 1910 would clarify Marshall's original positions (e.g. making the subject-names clearer); nonetheless, its future (i. e. in the 1920s and onwards) implications were potentially hazardous. That is to say, indirect pupils might focus more exclusively on academic and professional economics—as is the case today—after direct pupils would retire from the active roles of managing the Tripos.

In 1930, Keynes declared to Fay as follows:

We are proposing a somewhat drastic revision of the Tripos, which may not escape opposition, but looks like going through the Senate. This makes Part I a one-year course and Part II normally a two-year course⁴¹.

This remark is interesting and could possibly supplement our investigation, but for now we must adhere to the investigatory limit of the current study.

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⁴¹ UA/5/2/98, from Keynes to Fay, 4 March 1930, KP.

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