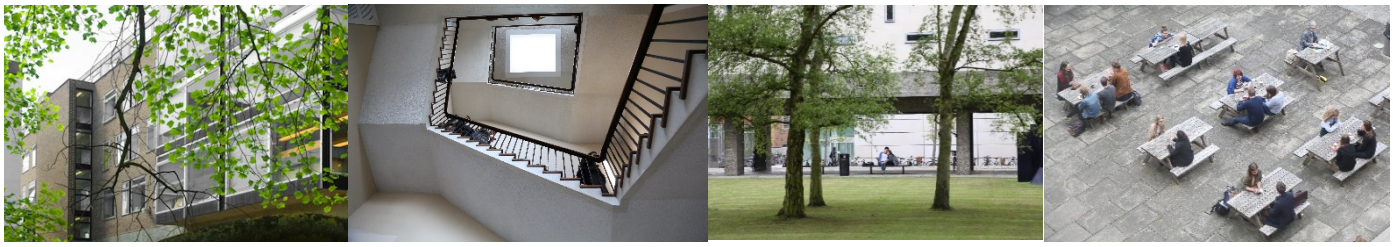
UNIVERSITY OF CAMBRIDGE
Faculty of Economics



# Part I Examinations Report 2020-2021

**Dr Sriya Iyer**
**Chair of Examiners, Part I Economics Tripos**

**Report on Examinations for Part 1 of the Economics Tripos 2020-2021**

This report provides information on the conduct of the Part 1 examinations for the Cambridge Economics Tripos. This year we were still dealing with providing examinations under Covid-19 lockdown circumstances, so all exam-related meetings were conducted online as were the examination meetings themselves. In light of the exceptional circumstances, the University's Examination Board had asked us to undertake Covid-mitigation strategies with respect to exams. These included automatic progression of all Part 1 students to Part 2A, even as we were required to class them as normal, as well as the application of 'cohort equity' – making sure that the final distribution of classes in the 2021 class list was equivalent to the average of each class in the previous three full examination rounds in 2017, 2018 and 2019. I discuss how we dealt with both of these issues further in my report below.

## 1. Format and Conduct of Part 1 Examinations

The format and conduct of the Part 1 examinations progressed as usual this year. All Part 1 papers were set as usual by the Examiners and Assessors. I chaired a meeting of the Part 1 Examination Board on 17 March 2021 in which all examination papers were carefully discussed at some length. They were approved by the Exam Board and sent to the External Examiner for his comments and approval. I am especially grateful this year to our External Examiner Professor Kaushik Mitra who has been an extraordinary source of wisdom, insight and support for our Part 1 Examination process. The External, Professor Kaushik Mitra, was consulted throughout the process.

All exams this year were online exams conducted between 10-17 June 2021, with the exception of the Essay Project in British Economic History which was undertaken in early May.

The membership of the Part 1 Examination Board was Professor Kaushik Mitra (External), Dr Mikhail Safronov, Dr Chryssi Giannitsarou, Profesor Alexei Onatskiy, Dr Nigel Knight, Dr Solomos Solomou, Dr Cristiano Ristuccia, Dr Charles Brendon, Dr Kai Liu, Dr Donald Robertson and Dr Sriya Iyer.

For Part 1, 162 students sat the Part 1 examinations this year. It is to the credit of our students that no instances of plagiarism was discovered. No candidates had marks deducted for late submissions either.

On 6 July 2021, the Exam Board met for a meeting by video-conference for the Final Examiners Meeting. The Pigou Memorial Prize for best overall performance in Part 1 was awarded to Mr Nicholas Testa of Girton College, the candidate who scored 5 Firsts with an average of 78.2%.

The College mark books were released to all College Directors of Studies on 7 July 2021, which were followed by transcripts for their students.

## 2. Cohort Equity and Automatic Progression in Part 1

This year there were two issues we needed to be cognisant of – 1) Cohort equity and 2) Automatic progression from Part 1 to Part 2A. On cohort equity, we needed to meet the averages in each class as set out in the distribution recorded in Table 1 below. The column headed 2021 demonstrates how that was achieved.

**Table 1. Cohort Equity in the Part 1 Class Distribution**

| Class | 2019 | 2018 | 2017 | Average | 2021 |
|---|---|---|---|---|---|
| 1 | 30.2 | 31.4 | 33.5 | 31.7 | **32.1** |
| 2.1 | 57.9 | 50 | 42.4 | 50.1 | **50.6** |
| 2.2 | 10.7 | 14.7 | 19 | 14.8 | **15.4** |
| 3 | 0.6 | 3.2 | 4.4 | 2.73 | **1.2** |
| Not classed | 0.6 | 0.6 | 0.6 | 0.6 | **0.6** |

There were a high proportion of Firsts and 2.1s. The 2.2s were marginally higher than previous years. There were fewer Thirds and one student who was not classed. Consequently, given the University's Covid-mitigation strategy of automatic progression, and the performance overall, all students in Part1 have been allowed to progress to Part 2A next year.

### 3. Performance by paper

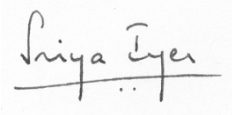
The statistics across papers and the Examiners Reports for individual papers follows this report. In brief, students did well across most papers with a mean of 65.6% across all papers with 25.3% obtaining marks over 70 overall, 56.8% obtaining marks between 60-69, and only 0.6% obtaining marks between 40-49 across all papers. This is a very good performance overall and testimony to the quality of our students. The students also performed very well in particular papers such as Paper 3 Quantitative Methods and the Paper 5 Economic History Essay which suggests that they are able to cope with varied forms of assessment to a high degree of achievement, which is heartening.

### 4. And finally

I would like to express my thanks to all those who were involved with Part 1 examining this year and especially to the Part 1 Examiners and Assessors, whose flexibility and cooperation was very much appreciated. I would also like to express my sincere thanks to Cherie Lee, Craig Peacock, Silvana Dean and the External Examiner Professor Kaushik Mitra, for their outstanding support, patience and efforts in dealing with and adapting well to the difficult circumstances which we faced this year; and for being an invaluable source of personal support to me in the conduct and execution of these examinations.

Over the last two years, the Part 1 Examining process in Covid-19 circumstances was a learning experience for all those who were involved with it. I would like to express my thanks to the other Chairs of Examiners of the other Tripos Exam Boards Dr Toke Aidt and Dr Melvyn Weeks this year. One of the measures we undertook this year was to set up an email discussion working group between all the Exam Chairs, This made the process of continuous consultation and consistency across Economics Tripos Exam Boards easier right through the year, and helped us to develop best practice and to learn from a rapidly evolving examination situation, with plenty of new information constantly being provided by the University as well. I feel that such cooperation across Exam Board Chairs is very helpful, and also makes sure that the Part 1 Chair of Exams is well supported.

My final thoughts are that since this was not an easy job especially in two consecutive Covid-afflicted years, I am very glad that we were able to execute all stages of the Part 1 examination process smoothly for the highest good of our excellent students and all those in the Faculty and in the Cambridge Colleges who put so much care and dedicated effort into teaching them. My sincere thanks to all.



Sriya Iyer

Attached: Part 1 Meeting Statistics, External Examiner and Part 1 Examiners' Reports

## Economics Tripos Part I 2021

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| | Paper 1 | Paper 2 | Paper 3 M | Paper 3 S | Paper 3 | Paper 4 | P5 Essay | P5 Exam | Paper 5 | All |
|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 64.6 | 64.6 | 67.3 | 65.3 | 66.5 | 65.4 | 69.2 | 63.8 | 66.7 | 65.6 |
| Standard Deviaton | 8.4 | 7.9 | 14.7 | 14.3 | 13 | 3.8 | 6.1 | 6.9 | 5.3 | 6.1 |
| Skewness | -0.6 | -0.3 | -0.6 | -0.7 | -0.5 | 0.1 | 0.3 | -0.3 | -0.1 | -0.4 |
| Excess kurtosis | 0.2 | 0.4 | 0.4 | 0.1 | -0.1 | -0.7 | 0.1 | 0.5 | 0.1 | -0.1 |
| Median | 66 | 65 | 69 | 68 | 66.5 | 65 | 68 | 64 | 67 | 66.2 |
| Compulsory paper average | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30th percentile | 60 | 60 | 60 | 58 | 59 | 63 | 66 | 60 | 64 | 62 |
| 40th percentile | 63 | 63 | 65 | 63 | 63 | 64 | 68 | 62 | 66 | 64 |
| Number of cases | 162 | 162 | 162 | 162 | 162 | 162 | 162 | 162 | 162 | 162 |
| Marks over 70 | 34.6% | 27.8% | 48.1% | 44.4% | 45.7% | 29.0% | 46.3% | 22.2% | 32.1% | 25.3% |
| Marks 60-69 | 39.5% | 51.2% | 22.2% | 22.8% | 24.1% | 66.7% | 48.8% | 49.4% | 60.5% | 56.8% |
| Marks 50-59 | 21.6% | 17.9% | 19.1% | 18.5% | 22.2% | 4.3% | 4.9% | 25.3% | 7.4% | 17.3% |
| Marks 40-49 | 3.1% | 2.5% | 6.8% | 9.3% | 5.6% | 0.0% | 0.0% | 3.1% | 0.0% | 0.6% |
| Marks under 40 | 1.2% | 0.6% | 3.7% | 4.9% | 2.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

Distribution by class

| | | |
|---|---|---|
| I | 52 | 32.1% |
| II.1 | 82 | 50.6% |
| II.2 | 25 | 15.4% |
| III | 2 | 1.2% |
| Other | 1 | 0.6% |

Inter Paper Correlation

| | P1 | P2 | P3M | P3S | P3 | P4 | P5 Ess | P5 Ex | P5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| P1 | | 0.60 | 0.65 | 0.68 | 0.74 | 0.24 | 0.32 | 0.43 | 0.46 | |
| P2 | 0.61 | | 0.60 | 0.56 | 0.64 | 0.29 | 0.29 | 0.53 | 0.51 | Raw |
| P3M | 0.69 | 0.58 | | 0.60 | 0.90 | 0.18 | 0.26 | 0.43 | 0.43 | Mark |
| P3S | 0.71 | 0.61 | 0.65 | | 0.89 | 0.12 | 0.14 | 0.30 | 0.28 | Correlatio |
| P3 | 0.77 | 0.65 | 0.89 | 0.91 | | 0.17 | 0.22 | 0.41 | 0.39 | |
| P4 | 0.22 | 0.26 | 0.10 | 0.12 | 0.13 | | 0.28 | 0.32 | 0.36 | |
| P5 Ess | 0.32 | 0.30 | 0.27 | 0.18 | 0.24 | 0.30 | | 0.36 | 0.80 | |
| P5 Ex | 0.42 | 0.52 | 0.41 | 0.28 | 0.37 | 0.32 | 0.36 | | 0.85 | |
| P5 | 0.43 | 0.48 | 0.41 | 0.28 | 0.36 | 0.36 | 0.79 | 0.83 | | |

Rank Correlation

# External Examiner report

UNIVERSITY OF BIRMINGHAM

BIRMINGHAM BUSINESS SCHOOL

**16th July 2021**

To Whom It May Concern:

I am writing as the External Examiner for the Part I Economics Tripos exam.

I was satisfied with the overall conduct of the examinations process.

I had adequate time to look at the draft examination papers and the detailed solutions the examiners provided were very helpful. The assessment was pitched at the appropriate level and measured student achievement rigorously and fairly against the intended outcomes of the programme.

I reviewed a sample of the scripts across the top, middle and bottom of the range and borderline candidates.

I was satisfied with the academic standards and that classifications were of an appropriate standard.

All in all, I found the entire examinations process handled very smoothly and efficiently.

Yours sincerely

Professor Kaushik Mitra

Dept of Economics

Birmingham Business School

University of Birmingham

'Triple-crown' accredited

# Part I - Paper 1 Microeconomics

**Joint Examiners' Report**

**Section A**

**Question 1**

Part a) requires students to show that the preferences are neither monotonic nor strictly convex. Some partial credit was given to showing preferences being 'weakly' monotonic, and convex. A typical mistake was drawing a line segment between a horizontal and a vertical line of an indifference curve and claiming strict convexity. Part b) allowed two ways of solution - either realizing that the preferences were equivalent to perfect complements, or showing directly that monotonicity is satisfied, while strict convexity fails.

**Question 2**

Here the correct answer is that the budget line consists of three parts - going only to shop A, only to shop B, or to both shops. A typical mistake was ignoring the option of going to both shops. Some marks were deducted if certain details of the budget line - points of intersection with axis, and kinks - were not calculated. Without calculating coordinates of kinks, one could not claim that the option of going to both shops was not dominated by going to one of the shops.

**Question 3**

Here the DWL arises from the fact that the monopolist's quantity is higher than the efficient quantity. Hence, the marginal cost of production is higher than the people's willingness to pay for the product. The appropriate area equals DWL. Typical mistakes include: not checking that choosing q=60 is the optimum for the monopolist, calculating DWL between wrong points (monopolist's optimum without government intervention, calculating the wrong area).

A few students found a nice 'loophole' - the monopolist is forced to 'produce' 60 units, but not to 'sell' them. In the optimum, the monopolist would sell only 50 units. This was rewarded.

**Question 4**

Both parts require students to show the reasoning behind their answers, best demonstrated by graph and/or sketch of proof. For part a), although the expected answer is to say that only price ratios are determined in C.E, credits were given to answers using the monopolist example discussed in class. For part b), credits were given to students who emphasized the preference non-satiation condition, or the Walras Law should be summed over all goods. Some students were penalized for answering that Walras Law holds only for competitive prices.

**Question 5**

Majority of the students did well on this question. Some students did not derive the contract curve, or drew the contract curve incorrectly. A few students had difficulty in deriving the final C.E allocation and prices.

**Question 6**

This question has a high variance. It was poorly done on average, especially when it comes to part b) and c). Many mistakes in part a). Common mistakes are in Part b): many students did not realize that all feasible allocations are pareto optimal. However, a few students give brilliant answers.

**Section B**

**Question 7**

Majority of students did well on the question. The idea of part b) was to make students realize that the worst possible scenario is when MRS equals price ratio - since then the consumer does not trade at all. Very few students realized this directly. However, this explanation was not needed to find the required price ratio - since it was easily found by direct calculations.

Typical mistakes include: in b) not checking second-order conditions, in c) wrong sign for compensation, subtracting old budget rather than the new budget

**Question 8**

Some students did really well, some did poorly. Part a) is just a cost minimization problem. Part b) would require looking at two 'types' of labour, and rewriting production function in terms of these two types, then do cost minimisation. Part c) would require either i) calculating the marginal cost of capital, comparing it across the two methods and finding the cutoff value at which one switches between two methods, and substituting it into the production function, or ii) working directly with cost functions found in parts a,b) and finding how to split the total production across the two methods. Also for parts b), c) some students did the hard method of writing the Lagrangian and solving those by force.

Typical mistakes would include (apart from math): in a) solving the problem as if some part of quantity can be produced by only labour, and some - by only capital; in b) thinking that each of the two types of labour is equal to L (rather than being a part of L), substituting the total cost of capital to be a 'price' of the capital, using expressions found in a); in c) not finding all important characteristics (cutoff for switching between two methods of producing capital, costs for below and above the cutoff). Also in part c) a few students were working with total costs rather than marginal costs - that is, they compared using only one method of producing capital vs the other one, and forgot about combining them.

**Question 9**

One of the most popular questions, and one in which students did poorly. There were a few tricks in the question. First, the MC of the monopolist is not constant, hence in part b) students were supposed to solve a system of two equations MR1=MR2=MC, rather than solving for each market separately. Second, the monopolist could always start serving only one market, hence students were supposed to check (in all three parts) that the monopolist was indeed willing to serve both markets rather than a single market.

Typical mistakes included the above-mentioned solving problem for each market separately, and not checking that the solution was indeed optimal. In part c) some students thought that the price in market B would be the same as in part b) and used that price to find the tax. A few students in part a) found the total demand wrongly - by adding together the price, rather than the quantity. Some students were using solutions found in some parts and substituted them to other parts, even though the monopolist was solving a different problem.

**Question 10**

Students are expected to show the reasoning behind their answers, best demonstrated by graph and/or sketch of proof. For part c), many students forget to discuss the additional assumption required when there is production. For part b), many students give answers using the 1 factor production function model—MRT is defined w.r.t two goods.

**Question 11**

This question was generally answered well among a handful of students choosing it. Common mistakes include errors in the case of part b). In part d), several students argued that case b) is also efficient, which was incorrect.

**Question 12**

Very few students chose to answer this question. Among those did, the performance was quite well.

**Dr Mikhail Safronov and Dr Kai Liu**

# Part I, Paper 2 – Macroeconomics

**Joint Examiners' Report**

The exam had the form of six section A (short) questions and four section B (long) questions. No students withdrew from the exam. All students answered the required number of questions. Students are reminded that they should read the questions *very carefully* before starting to write their answer and try to answer all parts of the questions.

A bit less than 80% of the students reached a class of II.1 or I for this paper. One student failed this exam. The average mark was 64.6% with a standard deviation of approximately 8. The distribution of number of answers for each of the long questions was as follows:

| B7 | B8 | B9 | B10 |
|---|---|---|---|
| 134 | 25 | 73 | 92 |

We note that the most popular question was question B7 and the overall distribution for long questions was reasonably balanced. Our comments on each of the questions follow:

**A1:** Students did very well with this relatively easy question. More marks were given to students that explained the concepts carefully and highlighted the fact that Okun's Law is a simple statistical correlation, implying no causality between output and unemployment. Several students stated that it relates to both cyclical and natural rate of unemployment, which was incorrect.

**A2:** This question in two parts involved a calculation and an intuitive explanation. Most students got the correct multiplier, however several used the wrong value for *cr* and therefore got a wrong multiplier. Students answered part (b) well, and extra points were given to those who explained that the values of *cr* are generally small and thus changes to that do not have much impact on money supply, unless something very dramatic happens.

**A3:** This question was generally answered very well, there were not many scripts were students answered wrong, but some had answers that were not covering all possible aspects and therefore were awarded less points.

**A4:** This question tested students' understanding of cost-push shocks and rational expectations. The lectures had covered both topics in isolation. Good students were able to provide a definition of rational expectations and show how to reduce the time taken for long-run adjustment relative to adaptive expectations. The lecture coverage had explained RE by reference to a change in the inflation target. Many weaker students duly argued that a cost-push shock must induce a change in the inflation target when expectations were rational!

**A5**: This question, on the Lucas paradox, was generally well answered - with strong answers able to explain that capital should flow from rich to poor countries and provide reasons why it does not (with implications for the current account). Weaker answers confused this with the Balassa-Samuelson effect, providing a confused case for rich countries running current account deficits 'because of an appreciated real exchange rate'.

**A6**: This question attracted good answers on the whole, though some students were unclear on the link between long-term demand shifts and the neutral real interest rate. Good candidates were able to explain how a change to inflation expectations could lower the floor on real interest rates, and the best answers also discussed the credibility of such a strategy.

**B7:** This question presented a simple model of endogenous growth, with a lot of mathematical similarities as the Solow growth model that the students are familiar with, yet with important differences in economic predictions. The students did reasonably well, although often they technical/mathematical analysis in part (c) was imprecise or failed to point out that $k^* = 0$ is a potential steady state. In part (d) many students wrote that the engine of growth is savings or the saving rate, but this is strictly speaking wrong: the true engine of growth is investment or capital accumulation. In equilibrium in a closed economy savings = investment and therefore students confused the two.

**B8:** This was the least popular question in section B, perhaps because it was somewhat open ended. There were some excellent essays there. Most students wrote good essays, and many connected the Great Recession with the pandemic recession reasonably well. Those who did not highlight the importance (or non-importance) of the housing markets for both recessions received less marks.

**B9:** This question required students to contrast three alternative demand-side policies for expanding the UK economy: transfer payments, infrastructure expenditure and QE. The question asked about both long-run and short-run effects, meaning that it was easiest to answer by reference to the AS-AD model. Surprisingly few candidates did so consistently across the three parts, with the discussion of QE in particular often done by reference to IS-MP alone - with only vague comments about long-run inflation risks. This made it harder for the comparative part of the question to be answered convincingly, since the different policies were not being compared in the same model. It was also surprising how few students noted the potential for infrastructure expenditure to shift out the LRAS curve. Nonetheless, the best answers were very impressive - in some cases commenting in remarkable detail on precise infrastructure projects that could be successful.

**B10:** This was a problem-based question, focusing on the Marshall-Lerner condition. In general it was poorly answered. Despite this being an open book exam, the main pitfall was a failure to transcribe correctly the definition of net exports - a majority of students failing to correct the quantity of imports by their value (i.e., forgetting to multiply by the inverse real exchange rate). This affected parts b and c of the question in particular - though bizarrely, some students wrote net exports incorrectly in part b, but by direct application of the Marshall-Lerner formula, were able to answer c correctly. Part d was difficult - requiring candidates to link the sensitivity of net exports to the volatility of the real exchange rate. It was pleasing to see the best students get this point right, but not many did.

**Summary:** This was a good exam: the questions were well balanced and covered all topics that we taught at the lectures. We were pleased to see a more even distribution of question selection in section B than previous years. Students still tend to prefer problems rather than applied/essay questions, but we would like to remind them that economic intuition is in many ways a lot more important than doing just dry mathematical derivations. We would also like to remind students that *all* taught material is examinable, and that given the structure of the exam (6 compulsory short questions), they cannot afford to not study certain topics. Importantly, students should not spend disproportionate amount of time and space when answering the short questions.

**Dr Chryssi Giannitsarou and Dr Charles Brendon**

# Part I, Paper 3 Quantitative Methods in Economics

**Joint Examiners' Report**

There were 162 candidates for this paper. We were very pleased with overall performance: 45.7% obtained firsts, another 24.1 obtained a 2:1 and the remainder obtained a 2:2 or lower. The average of 67.3 in Maths and 65.3 in Statistics reflects the good quality of the papers.

**Question A1.**

In general, students solved this problem very well. The most common mistake, both in part (a) and part (b), was to give an example of a function, which did not satisfy the requirements at zero. For example, many of the students who did such mistakes, gave examples of functions that were, in fact, not differentiable at zero. Sometimes, students gave examples of functions that were not defined on all real axis (such as those involving the square root of the argument). Another relatively common mistake in (b) was that students misread the question and thought that they have to give an example of a function which is concave for some values of arguments and convex for others, whereas in fact, the requirement was to give an example of a function which would be simultaneously concave and convex for positive arguments (that is, a linear function).

**Question A2.**

This was the second best problem in part A (after problem A1) in terms of the results. Part (b) turned out to be more difficult. Many students did not realise that they have to split the interval of integration into sub-intervals, compute the integral over each of these sub-intervals and sum up the resulting geometric progression. Those who followed this plan, usually did part (b) well. Other mistakes in this problem were mostly related to either computing derivatives or doing algebraic manipulations.

**Question A3.**

This turned out to be the hardest problem in part A. Part (a) was done very well. Students correctly referred to the Weierstrass theorem. However, in part (b) many were lost. Still, relatively more prepared students, were able to give rigorous examples of functions having required properties. Many students, although not giving a specific example, were able to draw insightful graphs, and were credited for this.

**Question A4.**

In part (b) of this problem, the most common issue was that, after solving the first order conditions, many students forgot to check whether the solution delivers a positive definite matrix or not. In part (a), relatively less prepared students disappointedly did not know or did not understand the definition of the compact set.

**Question B5.**

About 70% of students chose to answer this question. Part (a) was done generally very well. One delicate mistake in part (a) was to go from the original utility to logarithmic one and to mistakenly claim that the two utilities are equivalent because the latter was obtained from the former by what students thought was a monotone transformation. Such an approach would work had the utility depended only on one variable. The transformation would indeed then been monotone. For the bi-variate utility function the proposed transformation did not preserve the preferences. In part (b), the most common mistake was that students did not realise that, in general, checking the concavity of the function (as opposed to the Lagrangian) did not guarantee that the solution is a constrained maximum. Part (c) was done mostly well. In part (d), many students, instead of using the envelope theorem, engaged in lengthy calculus which sometimes led to mistakes.

**Question B6.**

Students who chose to do this problem (about 30%) did very well, in general. A few students did not understand that the constant A in the general formula for the solution does depend on the initial conditions and the rate of the immigration, which was the key observation to make. In part (d), some students could not correctly describe the solution after 2010 when the immigration stopped. However, overall, we are very pleased with the students' performance in this problem.

**Question C7.**
In part (a) need to state independence is used, and very few got the reasoning in part (d) and thought expected number of tests would increase.

**Question C8.**
Sketching the distributions was usually (but not always) done reasonably well but the integration defeated many. A number did not take the hint to "pay careful attention to the limits and variable that is integrated over".

**Question C9.**
Bimodal distribution of marks with many correct answers but a depressing number divided by N (or didn't divide by N) in inappropriate places.

**Question C10.**
Most could do the calculations but the correspondence between τ's and Type I/Type II errors caused confusion.

**Question D11.**
Many marks lost due to not showing the results were if and only if i.e. both directions needed arguing.

**Question D12.**
Not so popular. Marks lost for not being careful with notation in particular confusion between parameters and their estimators.

**Professor Alexey Onatskiy and Dr Donald Robertson**

# Part I, Paper 4 Political and Social Aspects of Economics

**Joint Examiners' Report**

All 162 candidates attempted this exam of which almost thirty per cent achieved firsts, some two thirds achieved a 2.1, and a little over 4% achieved a 2.2 with no thirds and no failed papers. Generally, candidates produced answers of high quality across all three courses comprising this Paper. It was clear that candidates had applied a great deal of effort and generally were prepared to a high standard.

**Question 1. "The fact that today's rich countries used policies that go against the free-market doctrine in becoming rich does not mean that today's developing countries should also use them." Discuss.**

This question was answered by 46 candidates. Candidates showed an impressive understanding of the literature and presented a suitably critical evaluation of the main thesis. Lots of empirical examples were also provided. The best answers elaborated the main arguments but also showed evidence of critical thinking and discussion.

**Question 2. "There is no such thing as a free market because all markets are in the end political constructs." Discuss.**

This question was answered by 66 candidates. This question was also well done and required both an understanding of the literature and a critical evaluation of it. The best students argued that there was no such thing as a market that was completely free, and agreed with the question title. Excellent answers in general and interesting perspectives provided by most students.

**Question 3. To what extent was a new political arrangement established between the major political parties in post-1945 British politics?**

This question was answered by 119 candidates and was generally answered well, with some candidates displaying a particularly thorough understanding of the material. More modest candidates generally interpreted 'arrangement' as 'consensus' without further consideration of what the word 'arrangement' might mean; some candidates used material employed for answering the supervision question without tailoring it to fit the exam question. To the extent there was an arrangement, there was no formal agreement between Parties, rather the median voter determined this arrangement. The National Insurance Act and National Health Service Act of 1946 were adopted by the subsequent Conservative governments. To some extent this arrangement had been initiated prior to 1945, Churchill had been a significant social reformer before and after World War 1 and thus had contributed to the development of the welfare state. Although Churchill opposed nationalisation in principle, MacMillan and other leading Tories embraced it. Keynesian economic theory was the dominant economic paradigm and so had to be adopted by both Labour and Conservative governments, thus this aspect of the arrangement was largely the consequence of what had been happening to economics at a theoretical level. The Foreign and Colonial policies were set prior to Attlee (partially by Churchill) and the Labour government was obliged by electoral opinion to follow these (in part). Attlee started the atomic bomb programme and the Conservatives continued it. However, there were many differences between the Parties and many changes which took place in the years and decades after 1945.

**Question 4. "Margaret Thatcher's Conservative government established a new type of politics in Britain, but there was nothing new about the New Labour government." Discuss.**

This was the most popular question being answered by 135 candidates and was generally answered well, with some candidates displaying a particularly thorough understanding of the material. Again, some more modest candidates used material employed for answering the supervision question without tailoring it to fit the exam question. To the extent that the type of politics was new was both about policy and about centralising the policy formation apparatus. Neoliberalism created a transformation in economic policy but of course free market policies themselves were by no means new. Thatcher largely maintained the non-economic policies of her predecessors, and so the politics was not new in this regard.

New Labour continued the low direct taxation, the privately owned economy and the constraints on the trades unions. There was continued centralising of the policy formation apparatus. Government expenditure on the NHS and state education grew as deliberate policies, *viz.* socialist informed policies. The indirect tax burden (stealth taxes) was increased so as to finance social policy, *viz.* a new policy. The industrial economy was reregulated: again a socialist informed policy. However, the Neo-Conservative wars in Iraq and Afghanistan were a new phenomenon in the post-colonial era.

**Question 5. "Economic problems have beset Britain since 1945, the sub-prime mortgage crisis, *viz.* 'The Great Recession' and the COVID-19 crisis only differed from the rest in terms of their origins." Discuss.**

This question was answered by 115 candidates and was generally answered well, with some candidates displaying a particularly thorough understanding of the material. Most of the economic problems Britain endured after 1945 were related to the fact that the productive efficiency of the economy at the micro-level was deficient post-1945 compared to the USA, West Germany, and Japan. The application of fiscal demand management increased inflation and tended to create trade deficits which reduced industrial competitiveness. Friedman argued that the application of fiscal demand management created the very stagflation which Keynesian theory could neither explain nor yield a policy prescription to resolve. State planning failed to correct the deficiency in productive efficiency. Subsequent supply-side reform partially corrected the deficiency in productive efficiency.

The Great Recession and COVID-19 crisis differed from the rest more than simply in their origins. A countercyclical fiscal expansion to address the 2008 Recession and the COVID-19 crisis was constrained due to the already expansionary fiscal stance prior to the Recession. Monetary policy has no such constraint but the effects of QE are themselves limited in expanding the economy. Governments can (and do) implement increased regulation of the commercial banking sector after economic shocks, but this reduces economic growth.

**Question 6.**

**(a) How is freedom of the media in an economy related to political accountability?**

**(b) How is the role of the media important for economic development more widely?**

This question was answered by 96 candidates. The best candidates discussed why the media play an essential role in a democracy, suggesting that as countries make the transition from autocracies to democracies, they affirm press freedoms in equally strong terms. They asked if the formal media freedom was enough to guarantee the free press? These answers also examined how the role of media has been studied in terms of its impact on government transparency, accountability, solving the principal (citizens)-agent (government) problem, corporate governance and the state of the media industry in specific countries. They also discussed causality, media autonomy and the Besley-Prat model, also including evidence from studies by Djankov, Leeson and Olken in Indonesia. Overall performance on this question was very good.

**Question 7.**

**(a) What are the differences between common law and civil law legal origin systems?**

**(b) Do different legal origins account for differences in economic growth across rich and poor countries?**

This question was answered by 71 candidates. They needed to discuss Anglo-American common law systems compared to European civil law systems. The best answers also discussed the role of judicial independence, constitutional review and procedural formalism. The best answers also presented varied evidence that legal origins are important for growth, but not when you control for human capital, and that the main channel through which they work is financial development (investor protection). Evidence from studies by Djankov and La Porta et al were cited. The performance on this question was excellent in general.

**Dr Nigel Knight and Dr Sriya Iyer**

# Part I, Paper 5 British Economic History

## Joint Examiners' Report

**Inter-war exam**

Students had to answer two questions out of three. All questions were attempted: Question 3 (unemployment) was the most popular with 124 responses; Question 2 (Policy consistency) received 107 responses; Question 1 (fiscal policy) was answered by 93 students. The overall quality of the responses was good at the mid-2.1 level. The responses suggest that students had invested in understanding this epoch of economic history and were able to respond to the specific aspects of the questions. The students who did not perform as well as might be expected were often unable to respond to all aspects of the question. For example, some students were better at discussing fiscal policy in the 1930s than the 1920s. Similarly, some students had a good understanding of unemployment hysteresis in the 1930s but were not able to discuss the evidence and explanations for the weak unemployment hysteresis channels in the 1920s.

Question 3 (unemployment hysteresis) was generally well answered. Most students were able to make relevant distinctions between the 1920s and 1930s. The stronger students were able to evaluate the causes of the observed differences, making good use of historical evidence and theoretical perspectives. Q2 (consistent policy framework) was generally well answered with students drawing on ideas of policy consistency between tariffs and devaluation, balanced budgets and expansive monetary policy, expectation effects and policy regime change. The weaker students treated this as an opportunity to write a general essay on economic policy in the 1930s without a clear focus on the question. Q1 (fiscal policy) proved less popular. Most students had a good understanding of fiscal policy in the 1930s and the stronger students were able to cover the 1920s and 1930s equally well.

**Industrial Revolution Essays**

The quality of the essays this year was particularly strong. Students were asked to write a long essay on either what caused a deterioration in the living standards of the majority in Britain during the Industrial Revolution or whether slavery contributed decisively to the industrialisation of Britain. The first topic was more popular than the second but even the latter attracted a good number of answers.

**Standards of Living**

The best answers were able to draw upon the observation that this is, and always was, primarily a debate about inequality not one about growth. We are called to explain why the industrialisation and urbanisation process produced unequal outcomes by income, gender and age to those that experience it. Hence the difficulty of discussing this process using aggregate measures. We are not interested in the standard of living of the average Briton during the industrial revolution (which clearly improved) but of those at the bottom end of the income distribution. Even within this group we are interested in distinguishing between outcomes for women in comparison with men, for workers in employment as compared with dependents, and for juveniles as compared to adult workers. Good answers tended to mention lack of redistributive intervention by the state to address negative environmental and social externalities affecting the less fortunate, or the adverse effect of technological change on working-class women and youngsters. Some candidates were better able than others to show a solid understanding of the strength and significance of evidence on wages, in relation to the income and thus the consumption of all members of the working class (not just those that happened to work). Moreover, they were able to connect such evidence with evidence coming from studies of effort levels, of biological outcomes, and of resource allocation at the household level. A good knowledge of theory helped some candidates frame their discussion, particularly if they were able to show awareness of the temporal dynamics suggested by the quantitative evidence. Exceptional answers were able to understand the ramifications of these findings for other aspects of the debate on the British industrial revolution and of its causes.

**Slavery**

Good answers typically noted that slavery was a common system of labour-exploitation in history but did not determine industrialisation before the 18$^{th}$ century. They would also describe in detail the debate on the relevance of the triangular trade and the difficulties that such a narrow definition of the role of slavery would have in providing quantitative evidence is support of a central role for slavery in either financing the British industrialisation process or in providing a market for British manufacture. More astute answers would have gone beyond this definition and described the role of slavery in the development of the Atlantic economy in the 17$^{th}$ and 18$^{th}$ century. Only in

understanding the complexity of the nexus of exchange in the Atlantic basin in this period and proving the degree to which this trade nexus was made possible by exploitation of slave labour one could argue that slavery was essential to British industrialisation. Yet, reaching an understanding of the centrality of slavery in the Atlantic economy is per se insufficient to prove that slavery was also central to British industrialisation. To do so one would also need to understand why the Atlantic economy was more important for Britain that for other European countries who equally exploited slave labour in their respective Atlantic Empires. Moreover, one needs to understand why the Atlantic economy was so important at this juncture in time. Indeed, the best answers were those able to place the development of the Atlantic trade nexus in the context of the development of global trade. Answers that addressed the latter in relation to the developmental benefits of urbanisation processes; in relation to the financial development; and in relation to capital accumulation were particularly solid. Exceptional answers proved capable of suggesting a reasonable answer to the role of the emergence of the Atlantic slave-based economy in relation to the debates on both the Little and the Great Divergence.

**Dr Cristiano Ristuccia and Dr Solomos Solomou**

**End of report**