

Raffles Institution
Preliminary Exams August 2016

ECONOMICS 9808/01
Higher 3

30 August 2016

3 hours 15 minutes

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

Write your name, index number and CT class on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a soft pencil for diagrams, graphs or rough working.
Do not use paper clips, highlighters, glue or correction fluid.

Answer question 1 [Case-Study] and any **TWO** essays

At the end of the examination, fasten **case-study and the cover sheet** securely together. Fasten **each essay separately**

Place this cover sheet on top of your work.

The number of marks is given in brackets [] at the end of each question or part question.

COVER SHEET

Please indicate the question that you have attempted.

Name : _____
Index No : _____
CT Class : _____

Question No.	For Examiner's Use Only
	Marks
1	

This document consists of **NINE** printed pages.



Extract 1

World trade: Have we reached peak globalization?¹ Professor Carlos A. Primo Braga

As bad news is mounting concerning the health of the world trade system, one has to wonder: have we reached a peak in the globalization process? Is there still an appetite to continue to promote international integration via the expansion of trade in the context of preferential or multilateral trade agreements? Or, have the tides changed so that we are going to witness a retreat from globalization in parallel with the observed slow-down of international trade?

Optimists argue that a debate about the future of globalization is a waste of time. According to this perspective, growing economic integration and interdependence is inevitable, driven by technology, unilateral trade liberalization and negotiated trade agreements.

Today, we are witnessing a series of "accidents" in the making. In Geneva, the "slow train" of the multilateral trade round (the Doha Development Agenda, DDA, negotiations) seems to be once again facing the danger of derailment. For example, the expectation that the Trade Facilitation Agreement (agreed upon at the Bali Ministerial in 2013) would enter into force by the Nairobi Ministerial is fast becoming "mission impossible" – the rules require that two thirds of the 161 WTO Members formally accept the protocol to insert the TFA into Annex 1A of the WTO; by August 6th 2013, only 12 Members had accepted the protocol.

Still, July was not kind to those that believe that there is scope for further substantive liberalization via trade deals. The USA, the main "champion" of the multilateral trade system in the post-WW II era, has now shifted its attention to two key mega-preferentials: the TPP and the Transatlantic Trade and Investment Partnership (TTIP). The TPP provided the best hope for concrete outcomes in the near future. Now this is in question.

The TPP is the first "new generation" mega-regional of the 21st century. Negotiations started in 2011 and now cover 12 countries, accounting for roughly 40% of global GDP and encompassing more than US\$2 trillion trade in goods per year. It has the clear geopolitical objective to reassure trading partners that the US is ready to engage in the Pacific basin and that it will not take China's economic rise as a sign of its inevitable economic dominance in the region.

The good news is that, even though the TPP deal has not yet been reached at the Maui, most observers agree that the final structure of the agreement is well defined and that participating countries are close to a deal. The bad news is that the political calendar in the US suggests that unless quick progress can be achieved in the coming weeks, the Congressional debate on TPP in the US will overlap with the upcoming Presidential election. Not a good omen for rational debate about trade agreements.

The prospects for significant progress in the near term both for multilateral and preferential trade initiatives do not seem bright. If we add to this realization, the fact that the growth of global trade has slowed down significantly over the last few years, the question of globalization reaching a peak becomes even more relevant. Merchandise trade had been

¹ <http://www.imd.org/research/challenges/TC063-15-peak-globalization-carlos-braga.cfm>

growing on average 7% per year in the two decades before the onset of the global financial crisis. Since 2008, however, trade growth has been anaemic and in some years below the expansion of world output (for example, 3.3% for global GDP versus 3.1% for global trade volume in 2014).

There is, however, an additional troubling development going on. The long-run elasticity of trade with respect to world GDP that used to be above 2 in the 1990s seems to be now much lower, suggesting that trade has become less responsive to GDP growth. The shortening of supply chains to better cope with environmental and geopolitical risks, increased recourse to trade protectionism in some markets, the domestic integration of the Chinese market leading to increased local content in exports, and the evolving shift towards services in the world economy are some of the usual suspects driving this trend.

It is too early to announce that we have reached a peak in globalization. One could even argue that we are in a moment of resetting global structures of production and that opportunities associated with "e-commerce" and lower transaction costs for small-and-medium enterprises to engage in international trade may soon reverse these trends. One message, however, stands: if there is no political will to continue to pursue trade liberalization, either unilaterally or in the context of trade negotiations, the specter of a less integrated world economy may become a self-fulfilling prophecy.

Extract 2

Hyperglobalisation and metropolitan gravity²

Recently Paul Krugman published a blog post documenting calculations he had run on trade growth in America from 1997 to 2011. Foreign trade soared over the period, growing more than twice as fast as output. Domestic trade, by contrast, had grown less than GDP.

Krugman wrote:

"I think this makes sense: the forces behind hyperglobalization — reduced transportation and communication costs leading to vertical disintegration of production — are encouraging mainly long-range trade to save a few percent on labor costs, not shipping stuff between U.S. cities. Interregional trade seems even to be lagging GDP, possibly because our cities are becoming less specialized than they used to be. (What does Atlanta do for a living, exactly?)"

I responded that while growth in domestic trade in *goods* might be lagging GDP, total domestic trade—including trade in services, but also in the domestic value-added of what are nominally imports (like the engineering and design in an iPhone)—has probably been soaring. I still think that is right. But after reading Krugman's recent and related paper on the subject (for which he was doing the calculations that inspired the blog post), I think we are

² <http://www.economist.com/blogs/freeexchange/2013/10/trade-0>

not so much disagreeing as talking about different things. The story Krugman tells in his paper is both fascinating and important.

When economics students are introduced to theories of international trade they are instructed in the magic of comparative advantage. Imagine two countries, Britain and France, which both produce just two goods, grain and cotton textiles. Britain is better than France at producing both, but it is much better at producing cotton textiles and only a little better at growing grain. If the two countries then specialise, with each focusing on the product it is relatively better at producing, then they can exchange textiles for grain with each other and each wind up better off.

In the early 1930s Heckscher and Ohlin expanded on this, arguing that comparative advantage was likely to be driven by "factor endowments". This may correspond to British production of textiles and French production of grain.

But empirical studies revealed a problem: actual trade did not at all seem to match these models. America and Europe not only did not trade according to their factor endowments. They overwhelmingly sold the sorts of goods to each other that they also bought! Britons sold Rovers to the French and bought Citroens and vice versa!

It was the effort to resolve this puzzle that led to the new trade theory, and Krugman's contributions helped earn him a Nobel prize. New trade theory begins by explaining that markets aren't perfectly competitive. Instead, there might be increasing returns to scale in production: production costs fall with the quantity produced. There are many potential reasons why that might be the case; perhaps, as in car manufacturing, there are very large set-up costs. The implication of increasing returns, however, is that competition is limited because new entrants cannot initially price their goods competitively.

Consumers like variety, and variety is limited by the extent of the market. Trade increases the effective market size, so that more producers and more variety becomes economical.

Back then to the question of interregional versus international trade. Trade between rich-world markets—including that between two American regions or metropolitan areas—is not going to be dependent on factor endowments. Dallas and Chicago trade with each other, quite extensively as it turns out, despite the fact that the human capital and resource profiles of the two cities are similar and firms in each place have roughly the same technological capability. Interregional trade is not Ricardian. It is instead rooted in increasing returns and the sort of intra-industry trade that was explained by Krugman's new trade theory.

Rapid trade growth over the past generation ("hyperglobalisation") is a different story, however. That trade has been associated with the incorporation in the global market of very

large emerging economies that *do* have profoundly different factor endowments from rich-world economies: most notably in their relative abundance of cheap labour.

As Chinese labour becomes relatively less cheap and abundant, due to continued catch-up growth, demographic change, and other factors, the gains from comparative-advantage-oriented trade between China and the rich world will decline. Instead, we would anticipate trade between China and the rich world to more closely resemble trade within the rich world: "peer" firms in both countries will sell relatively similar goods to both markets.

Krugman concludes his paper with the same message found in his blog post: that lagging goods trade in America is a product of increased homogeneity across America. But there is another dynamic worth considering.

As Krugman notes, the great transport and communication innovations of the past generation did not necessarily reduce shipping costs. Rather, they reduced shipping time while also making international coordination of shipments cheaper and easier. The result has been, in Richard Baldwin's phrase, a "second unbundling". The first unbundling represented globalisation's geographic separation of production and consumption more than a century ago. The second is the geographic separation of stages of production. And one then has to ask how stories of the determinants of international trade apply to *each of these various stages*.

Return to the example of the iPhone. Design and engineering work and the production of critical components operate in an increasing returns world. Assembly, by contrast, seems to be governed by comparative advantage. But that's still a somewhat dissatisfying narrative. The question is: why should assembly be driven by factor abundance while design is not? It's obviously not because emerging markets can't produce sufficiently talented engineers; they do, and quite often those engineers go to Silicon Valley to work.

Krugman has wrestled with these dynamics as well. Increasing returns can also generate geographic concentration. In the presence of certain positive externalities, productivity spillovers or complementarities etc, firms in one geographic area grow more productive as the area itself grows larger: more firms, higher productivity, more firms.

So in one sense, increasing-returns-driven trade is what you get when the productivity benefits of local spillovers outweigh the potential gains from taking advantage of factor-price gaps. As the spillover benefits to bits of a supply chain erode (either because falling transport cost enable one to reap such benefits at greater distance, or because technology maturation means there is less of the tinkering and experimentation that seems to work best in clusters) those bits escape the pull of metropolitan gravity and fall toward places where the factors the bits rely on are cheapest.

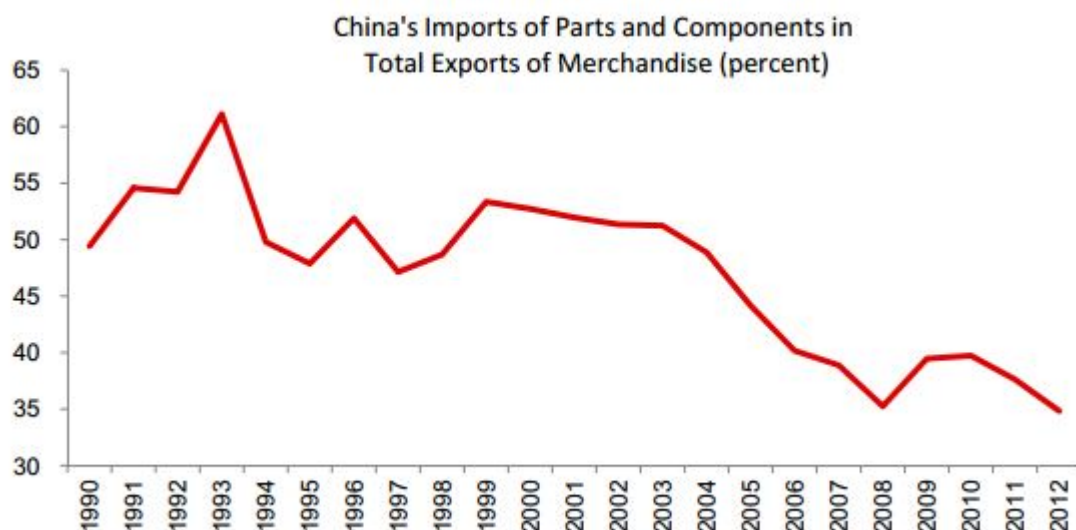
That does present another question: does factor-price equalisation only apply across areas that are subject to Heckscher-Ohlin-type trade? It shouldn't if factors are mobile. Labour costs shouldn't vary all that much for similarly skilled workers in a common labour market, since if they did workers would move from low wage places to high wage places until they were equalised. If some sort of wedge were to impede such migration, however...

Extract 3

Peak Trade and China's role³

For many years Chinese manufacturers relied on supplies of overseas parts for the products they assembled. But increasingly those parts are coming from factories inside China, many of which have been built there by foreign companies. In 1993 more than 60 per cent of Chinese exports were made up of foreign-sourced parts. That figure is down to less than 35 per cent in recent years. ***That just means that fewer things are crossing borders and that, for that reason, the kind of rapid growth in global trade seen over the past three decades is unlikely to continue into the future. Especially when you consider that China is now the world's "megatrader".***

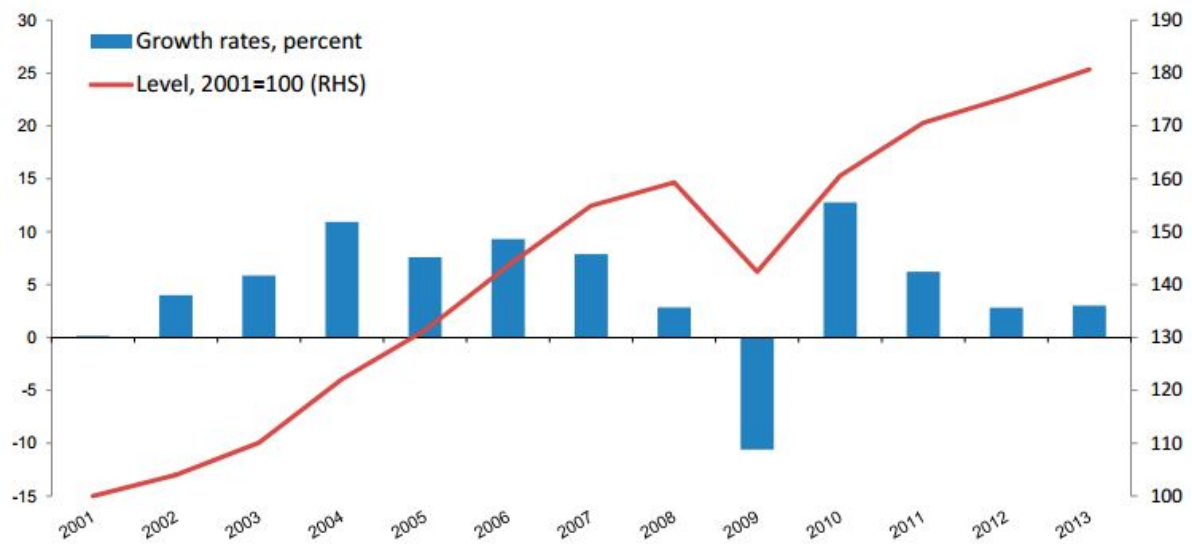
Chart 1



³ <http://blogs.ft.com/beyond-brics/2014/11/19/peak-trade-and-chinas-role-in-5-charts/>

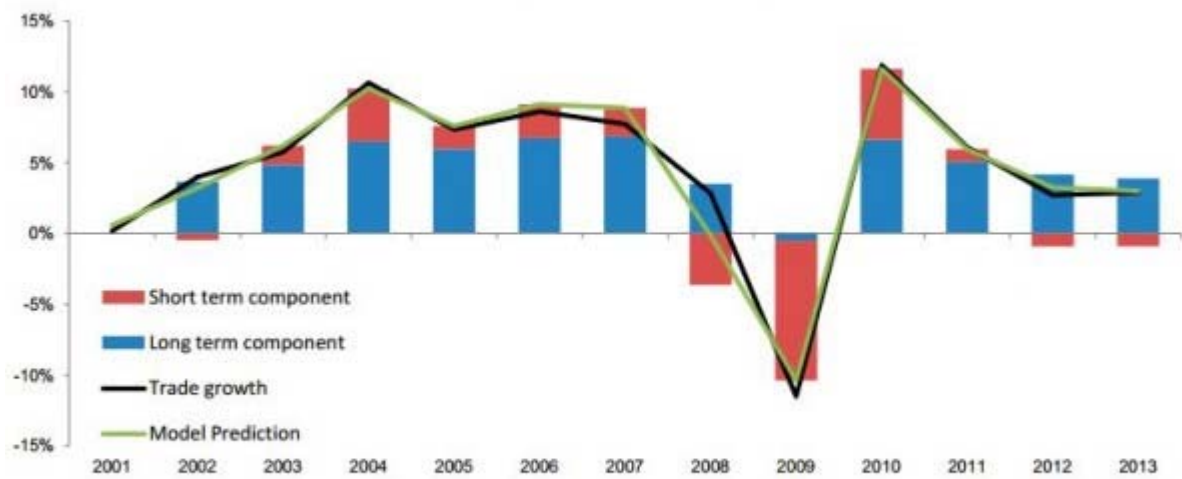
Chart 2

Global Trade Growth



Source: IMF World Economic Outlook

Chart 3



Source: IMF World Economic Outlook and authors' calculations

Answer **all of question 1** and **any two** other questions

1a How might the Heckscher-Ohlin and factor-price equalisation theorems help to explain the current patterns of globalisation of labour? **4 marks**

1b Comment upon the data in Charts 2 and 3 **4 marks**

1c According to Chart 1 the proportion of domestically-sourced parts in Chinese exports has risen from 35 per cent to more than 60 per cent since 1993. Why might this be important? **4 marks**

1c How important is factor mobility now? **8 marks**

1d Has the world reached peak globalisation?
To what extent does it matter? **10 marks**

2 *"Economics is not only a social science, it is a genuine science,"* Edward Lazear, in a essay from 2000 entitled "Economic Imperialism"

To what extent do you agree? **35 marks**

3 *"The curious mind embraces science; the gifted and sensitive, the arts; the practical, business; the leftover becomes an economist."*

Nassim Nicholas Taleb, The Bed of Procrustes: Philosophical and Practical Aphorisms

"The master-economist must possess a rare combination of gifts He must be mathematician, historian, statesman, philosopher—in some degree..."

John Maynard Keynes:

Who is right? **35 marks**

4 Dramatic business and economic events of the past decade are inducing far-reaching changes in how firms behave. One of the more conspicuous changes is in competitive behavior, where conventional patterns have given way to alternative, strategic approaches.

To what extent are such changes likely to come at the consumers' expense? **35 marks**

5 *"Scientia potentia est"*
This Latin aphorism means "knowledge is power"

When and how might governments intervene in markets where information is asymmetrically held? **35 marks**

- 6 The importance of the world's ocean cannot be overstated. They supply fifty percent of the oxygen we breathe, feed billions of people, and provide livelihoods for millions more.

Global governance – global agreements, global rules and global institutions - is the most effective way to manage ocean degradation.

Discuss.

35 mark

- 7 "I'm generally in favor of economic globalization. Having said that, it doesn't always work and does not immediately work in the interest of all. There are sufferers." **Amartya Sen**

Will globalisation ever work in the interest of all?

35 marks