



PUC - Rio VESTIBULAR 2015

Outubro / 2014

INGLÊS - RELAÇÕES INTERNACIONAIS

LEIA ATENTAMENTE AS INSTRUÇÕES ABAIXO.

- 01 - O candidato recebeu do fiscal o seguinte material:
- este Caderno, com o enunciado das 20 questões objetivas de **INGLÊS - RELAÇÕES INTERNACIONAIS**, sem repetição ou falha;
 - um **CARTÃO-RESPOSTA**, com seu nome e número de inscrição, destinado às respostas das questões objetivas formuladas na prova de **INGLÊS - RELAÇÕES INTERNACIONAIS**.
- 02 - O candidato deve verificar se este material está em ordem e se o seu nome e número de inscrição conferem com os que aparecem no **CARTÃO-RESPOSTA**. Caso não esteja nessas condições, o fato deve ser **IMEDIATAMENTE** notificado ao fiscal.
- 03 - Após a conferência, o candidato deverá assinar, no espaço próprio do **CARTÃO-RESPOSTA**, a caneta esferográfica transparente de tinta na cor preta.
- 04 - No **CARTÃO-RESPOSTA**, a marcação das letras correspondentes às respostas certas deve ser feita cobrindo a letra e preenchendo todo o espaço compreendido pelos círculos, a **caneta esferográfica transparente de tinta na cor preta**, de forma contínua e densa. A leitura ótica do **CARTÃO-RESPOSTA** é sensível a marcas escuras, portanto, os campos de marcação devem ser preenchidos completamente, sem deixar claros.
- Exemplo: (A) ● (C) (D) (E)
- 05 - O candidato deve ter muito cuidado com o **CARTÃO-RESPOSTA**, para não o **DOBRAR, AMASSAR ou MANCHAR**. O **CARTÃO-RESPOSTA** somente poderá ser substituído se, no ato da entrega ao candidato, já estiver danificado em suas margens superior e/ou inferior - **DELIMITADOR DE RECONHECIMENTO PARA LEITURA ÓTICA**.
- 06 - Para cada uma das questões objetivas são apresentadas 5 alternativas classificadas com as letras (A), (B), (C), (D) e (E); só uma responde adequadamente ao quesito proposto. O candidato só deve assinalar **UMA RESPOSTA**: a marcação em mais de uma alternativa anula a questão, **MESMO QUE UMA DAS RESPOSTAS ESTEJA CORRETA**.
- 07 - As questões são identificadas pelo número que se situa acima de seu enunciado.
- 08 - **SERÁ ELIMINADO** do Concurso Vestibular o candidato que:
- se utilizar, durante a realização da prova, de máquinas e/ou relógios de calcular, bem como de rádios gravadores, *headphones*, telefones celulares ou fontes de consulta de qualquer espécie;
 - se ausentar da sala em que se realiza a prova levando consigo este Caderno de Questões e/ou o **CARTÃO-RESPOSTA**;
 - não assinar a Lista de Presença e/ou o **CARTÃO-RESPOSTA**.
- Obs.:** Iniciada a prova, o candidato só poderá se ausentar do recinto da prova após **30 (trinta) minutos** contados a partir do efetivo início da mesma.
- 09 - O candidato deve reservar os 30 (trinta) minutos finais para marcar seu **CARTÃO-RESPOSTA**. Os rascunhos e as marcações assinaladas no **CADERNO DE QUESTÕES NÃO SERÃO LEVADOS EM CONTA**.
- 10 - O candidato deve, ao terminar a prova, entregar ao fiscal o **CARTÃO-RESPOSTA** e este **CADERNO DE QUESTÕES** e **ASSINAR** a **LISTA DE PRESENÇA**.
- 11 - **O TEMPO DISPONÍVEL PARA ESTA PROVA DE QUESTÕES OBJETIVAS É DE 2 (DUAS) HORAS.**

BOA PROVA!

INGLÊS - RELAÇÕES INTERNACIONAIS

Labor, Capital, and Ideas in the Power Law Economy

By Erik Brynjolfsson, Andrew McAfee, and Michael Spence

Recent advances in technology have created an increasingly unified global marketplace for labor and capital. The ability of both to flow to their highest-value uses, regardless of their location, is equalizing their prices across the globe. In recent years, this broad factor-price equalization has benefited nations with abundant low-cost labor and those with access to cheap capital. Some have argued that the current era of rapid technological progress serves labor, and some have argued that it serves capital. What both camps have slighted is the fact that technology is not only integrating existing sources of labor and capital but also creating new ones.

Machines are substituting for more types of human labor than ever before. As they replicate themselves, they are also creating more capital. This means that the real winners of the future will not be the providers of cheap labor or the owners of ordinary capital, both of whom will be increasingly squeezed by automation. Fortune will instead favor a third group: those who can innovate and create new products, services, and business models.

The distribution of income for this creative class typically takes the form of a power law, with a small number of winners capturing most of the rewards and a long tail consisting of the rest of the participants. So in the future, ideas will be the real scarce inputs in the world - scarcer than both labor and capital - and the few who provide good ideas will reap huge rewards.

LABOR PAINS

Technology has sped globalization forward, dramatically lowering communication and transaction costs and moving the world much closer to a single, large global market for labor, capital, and other inputs to production. Even though labor is not fully mobile, the other factors increasingly are. As a result, the various components of global supply chains can move to labor's location with little friction or cost. About one-third of the goods and services in advanced economies are tradable, and the figure is rising. And the effect of global competition spills over to the nontradable part of the economy, in both advanced and developing economies.

All of this creates opportunities for not only greater efficiencies and profits but also enormous dislocations. If a worker in China or India can do the same work as one in the United States, then the laws of economics dictate that they will end up earning similar wages (adjusted for some other

differences in national productivity). That's good news for overall economic efficiency, for consumers, and for workers in developing countries - but not for workers in developed countries who now face low-cost competition. Research indicates that the tradable sectors of advanced industrial countries have not been net employment generators for two decades. That means job creation now takes place almost exclusively within the large nontradable sector, whose wages are held down by increasing competition from workers displaced from the tradable sector.

Even as the globalization story continues, however, an even bigger one is starting to unfold: the story of automation, including artificial intelligence, robotics, 3-D printing, and so on. And this second story is surpassing the first, with some of its greatest effects destined to hit relatively unskilled workers in developing nations.

This will happen even where labor costs are low. Indeed, one Chinese company that assembles smartphones and tablets employs more than a million low-income workers - but now, it is supplementing and replacing them with a growing army of robots. So after many manufacturing jobs moved from the United States to China, they appear to be vanishing from China as well. (Reliable data on this transition are hard to come by. Official Chinese figures report a decline of 30 million manufacturing jobs since 1996, or 25 percent of the total, even as manufacturing output has soared by over 70 percent, but part of that drop may reflect revisions in the methods of gathering data.) As work stops chasing cheap labor, moreover, it will gravitate toward wherever the final market is, since that will add value by shortening delivery times, reducing inventory costs, and the like.

The growing capabilities of automation threaten one of the most reliable strategies that poor countries have used to attract outside investment: offering low wages to compensate for low productivity and skill levels. And the trend will extend beyond manufacturing. Interactive voice response systems, for example, are reducing the requirement for direct person-to-person interaction, spelling trouble for call centers in the developing world. Similarly, increasingly reliable computer programs will cut into transcription work now often done in the developing world. In more and more domains, the most cost-effective source of "labor" is becoming intelligent and flexible machines as opposed to low-wage humans in other countries.

CAPITAL PUNISHMENT

If cheap, abundant labor is no longer a clear path to economic progress, then what is? One school of thought points to the growing contributions of capital: the physical and intangible assets that combine

with labor to produce the goods and services in an
 105 economy (think of equipment, buildings, patents,
 brands, and so on). As the economist Thomas Piketty
 argues in his best-selling book *Capital in the Twenty-*
110 first Century, capital's share of the economy tends
 to grow when the rate of return on it is greater than
 the general rate of economic growth, a condition he
 predicts for the future. The "capital deepening" of
 economies that Piketty forecasts will be accelerated
 further as robots, computers, and software (all of
 which are forms of capital) increasingly substitute for
 115 human workers. Evidence indicates that just such a
 form of capital-based technological change is taking
 place in the United States and around the world.

The United States has one of the world's
 highest levels of real GDP per capita - even as its
 120 median income has stagnated. Other countries are
 witnessing similar trends. The economists Loukas
 Karabarounis and Brent Neiman have documented
 significant declines in labor's share of GDP in 42
 of the 59 countries they studied, including China,
 125 India, and Mexico. In describing their findings,
 Karabarounis and Neiman are explicit that progress
 in digital technologies is an important driver of this
 phenomenon: "The decrease in the relative price of
 investment goods, often attributed to advances in
 130 information technology and the computer age, induced
 firms to shift away from labor and toward capital. The
 lower price of investment goods explains roughly half
 of the observed decline in the labor share."

But if capital's share of national income has
 135 been growing, the continuation of such a trend into
 the future may be in jeopardy as a new challenge
 to capital emerges - not from a revived labor sector
 but from an increasingly important unit within its own
 ranks: digital capital.

Adapted from <http://www.foreignaffairs.com/articles/141531/erik-brynjolfsson-andrew-mcafee-and-michael-spence/new-world-order>. July 2014
 Published on *Foreign Affairs* (<http://www.foreignaffairs.com>) -
 July/August issue, 2014.

1

The argumentation presented in the fragment "Recent advances in technology have created an increasingly unified global marketplace for labor and capital." (lines 1-3) is structured by

- (A) description
- (B) enumeration
- (C) cause-effect
- (D) problem-solution
- (E) chronological sequence

2

In Paragraph 2, 'both of whom' (line 19) refers to

- (A) "machines" (line 14) and "human labor" (line 15).
- (B) "the real winners of the future" (line 17) and "the providers of cheap labor" (line 18)
- (C) "the real winners of the future" (line 17) and "those who can innovate and create new products, services, and business models" (lines 21-22).
- (D) "the providers of cheap labor" (line 18) and "the owners of ordinary capital" (lines 18-19)
- (E) "cheap labor" (line 18) and "ordinary capital" (lines 18-19).

3

According to the information presented on lines 23 to 26, the referred distribution of income takes the form of a power law, in which

- (A) the power of those who innovate and create new products is restrained.
- (B) the distortion of income distribution in nations around the world is downgraded.
- (C) a small group of innovative professionals is significantly rewarded.
- (D) a functional relationship between some classes of fortune winners is denied.
- (E) the income distribution in most technological and developed countries can be refuted.

4

In Paragraph 3, the authors affirm that "...in the future, ideas will be the real scarce inputs in the world" (lines 27-28) because

- (A) only few creative and innovative citizens will be favored by fortune.
- (B) ideas will not be as highly valued in the future as they are nowadays.
- (C) the intensive spread of technology will prevent the proliferation of good ideas.
- (D) labor and capital will replace the strategic importance of ideas in the creation of new jobs.
- (E) new products, services and business models will depend less on the existence of good ideas.

5

The two subtitles found in the text (LABOR PAINS and CAPITAL PUNISHMENT)

- (A) indicate that both labor and capital are being substituted by recent advances in technology.
- (B) predict that both labor and capital will flow according to job creation and income distribution.
- (C) forecast challenging times for labor and capital in the global economy.
- (D) highlight the importance of globalization and automation growth.
- (E) anticipate somber days for the future of market investment.

6

According to the text, technology is “moving the world much closer to a single, large global market for labor, capital, and other inputs to production.” (lines 33-35) despite the

- (A) full mobility of low-cost labor.
- (B) high transaction and communication costs.
- (C) inefficiencies in services in advanced economies.
- (D) rising number of tradable goods in the world.
- (E) lacking in mobility of the labor sector.

7

In Paragraph 5 (lines 44-60) the authors explain why, in a technological and globalized world,

- (A) high wages are earned by all workers in developing countries.
- (B) economic laws state that all workers cannot earn the same wages.
- (C) developed countries consumers do not profit from low cost competition
- (D) workers in different countries can do the same task and receive similar payment.
- (E) displaced workers in advanced industrial countries are now employment generators.

8

In the fragments “...wages are held down by increasing competition from workers displaced from the tradable sector.” (lines 59-60) and “(Reliable data on this transition are hard to come by...)” (lines 75-76), **held down** and **come by** mean, respectively,

- (A) revealed – find
- (B) restrained – obtain
- (C) repressed – trust
- (D) raised – acquire
- (E) curbed – doubt

9

In “... part of that drop may reflect revisions in the methods of gathering data.” (lines 79-81) the writer expresses a(n)

- (A) unquestionable truth.
- (B) concrete possibility.
- (C) absolute obligation.
- (D) logical necessity.
- (E) improbable guess.

10

Automation, according to what is expressed in Paragraph 8 (lines 85-98), cannot be held fully accountable for

- (A) low productivity and skill levels of workers in developed countries.
- (B) menacing jobs in the call center sector in the developing world.
- (C) developing reliable computer systems to do transcription work.
- (D) threatening low-wage humans in many different areas.
- (E) low wages paid to workers in developing countries.

11

Thomas Piketty is mentioned in Paragraph 9 (lines 100-117) because he is

- (A) a world-famous writer of best-selling books in the area of international affairs.
- (B) a visionary writer capable of anticipating capital-based technological changes all around the world.
- (C) a best-selling author who specializes in economic forecasts for the US in the 21st century and beyond.
- (D) an economist who discussed the role of capital's share of the economy in the 21st century in a recently published book.
- (E) a controversial economist who believes that robots, computers and software will completely substitute human workers in the 21st century.

12

In ‘In describing their findings, Karabarounis and Neiman are explicit that progress in digital technologies is an important driver of this phenomenon’ (lines 125-128), ‘this phenomenon’ refers to the

- (A) high level of the real gross domestic product in the United States.
- (B) decline in the relative price of investment goods in the 59 countries studied.
- (C) progress in digital technologies in countries such as China, India and Mexico.
- (D) advances in information technology and the lower price of investment goods.
- (E) significant declines in labor's share of the gross domestic product in 42 countries.

13

The option in which the phrase in boldface is correctly explained is

- (A) **‘this broad factor-price equalization’** (lines 5-6) – this equalization of factors that generates high prices
- (B) **‘the nontradable part of the economy’** (lines 41-42) – the part of the economy that cannot be commercialized
- (C) **‘interactive voice response systems’** (line 90) – voice systems which are activated by required responses
- (D) **‘increasingly reliable computer programs’** (lines 93-94) – computer programs that are getting more untrustworthy
- (E) **‘capital-based technological change’** (line 116) – capital change based on technology

14

Based on the meanings the words in bold convey in the text,

- (A) **slighted** (line 11) and *ignored* are not synonymous.
- (B) **reap** (line 29) and *gain* are antonymous.
- (C) **surpassing** (line 65) and *exceeding* are not equivalent in meaning.
- (D) **threaten** (line 85) and *menace* express opposite ideas.
- (E) **jeopardy** (line 136) and *peril* are interchangeable in terms of meaning.

15

The expression in bold and the item in italics convey equivalent ideas in

- (A) "**As** they replicate themselves, they are also creating more capital." (lines 15-16) – *Although*
- (B) "Fortune will **instead** favor a third group: those who can innovate and create new products, services, and business models." (lines 20-22) – *thus*
- (C) "**Even though** labor is not fully mobile, the other factors increasingly are." (lines 35-36) – *Given that*
- (D) "**As a result**, the various components of global supply chains can move to labor's location with little friction or cost." (lines 36-38) – *Yet*
- (E) "**So** after many manufacturing jobs moved from the United States to China, they appear to be vanishing from China as well." (lines 73-75) – *Therefore*

16

The alternative in which all the words contain prefixes that express the idea in brackets is

- (A) unified (line 2) – intangible (line 103) [*negation*]
- (B) replicate (line 15) – decline (line 133) [*repetition*]
- (C) distribution (line 23) – increasingly (line 93) [*size*]
- (D) transaction (line 32) – income (line 120) [*movement*]
- (E) surpassing (line 65) – forecasts (line 112) [*time*]

17

In terms of numerical reference

- (A) 'one-third' (lines 38-39) refers to the (total) amount of goods and services in advanced economies that cannot be purchased.
- (B) '30 million' (line 77) refers to the amount of manufacturing jobs that have been created in the last 18 years in China.
- (C) '25 percent' (line 78) refers to the percentage of manufacturing jobs that have been extinguished in China since 1996.
- (D) 'over 70 percent' (line 79) refers to the decrease in the Chinese manufacturing output.
- (E) '42' (line 123) refers to the total number of countries researched by Karabarbounis and Neiman.

18

According to the text, digital capital

- (A) has been growing fast only in the developing world.
- (B) may be blamed for the advances in information technology.
- (C) does not risk to overthrow the capital's share of national income.
- (D) will be responsible for the revival of the labor share around the world.
- (E) an emerging new factor that may pose an imminent threat to capital.

19

The authors, in the original publication of this text, added the following paragraph to support one of their arguments. "Visit a factory in China's Guangdong Province, for example, and you will see thousands of young people working day in and day out on routine, repetitive tasks, such as connecting two parts of a keyboard. Such jobs are rarely, if ever, seen anymore in the United States or the rest of the rich world. But they may not exist for long in China and the rest of the developing world either, for they involve exactly the type of tasks that are easy for robots to do. As intelligent machines become cheaper and more capable, they will increasingly replace human labor, especially in relatively structured environments such as factories and especially for the most routine and repetitive tasks. To put it another way, offshoring is often only a way station on the road to automation."

This paragraph would fit in immediately after the paragraph that ends in

- (A) "Fortune will instead favor a third group: those who can innovate and create new products, services, and business models." (lines 20-22)
- (B) "And the effect of global competition spills over to the nontradable part of the economy, in both advanced and developing economies." (lines 40-43)
- (C) "And this second story is surpassing the first, with some of its greatest effects destined to hit relatively unskilled workers in developing nations." (lines 64-67)
- (D) "As work stops chasing cheap labor, moreover, it will gravitate toward wherever the final market is, since that will add value by shortening delivery times, reducing inventory costs, and the like." (lines 81-84)
- (E) "In more and more domains, the most cost-effective source of "labor" is becoming intelligent and flexible machines as opposed to low-wage humans in other countries." (lines 95-98)

20

The communicative intention of the text is to

- (A) discuss the new roles labor and capital may be adopting in the globalized economy in the near future.
- (B) blame automation for jeopardizing unskilled workers in most developing countries in the world.
- (C) justify why cheap, abundant labor will continue to be the only way towards economic progress.
- (D) argue against the role of technology in the integration of existing sources of labor and capital.
- (E) reveal that globalization has played a major role in lowering communication and transaction costs.