



**VICTORIA JUNIOR COLLEGE**

**JC 2 PRELIMINARY EXAMINATION 2017**

**H3 Economics**

**9809/01**  
**3 hours 15 minutes**

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**READ THESE INSTRUCTIONS FIRST**

Write your index number and name 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 any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

**Section A**

Answer **all** questions.

**Section B**

Answer **two** questions.

At the end of the examination, fasten all your work securely together.

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

## Section A

Answer **all** questions in this section

## The Economics of Climate Change – Challenges and Opportunities

### Extract 1: United States (US) withdrawal from the Paris Agreement

"We're getting out." It was with these words that US President Donald Trump signified the United States' decision to break from the Paris Agreement on Climate Change.

In 2016, the Paris Agreement marked a turning point in the battle against climate change. World leaders from across the globe united for the first time in history to legally ratify action against pollution through the United Nations Framework Convention. The ultimate purpose of the Paris Agreement was to lower emissions to combat global warming.

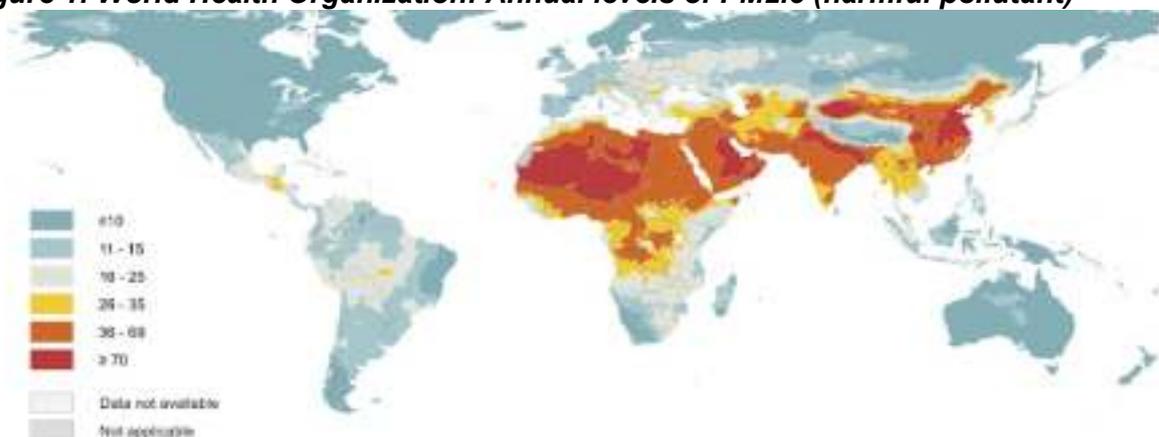
The European Union (EU) has rejected Trump's idea of re-working the deal around US industry demands. On Wednesday 14 June, European Commission president Jean-Claude Juncker told the EU Parliament in no uncertain terms that "the European Union will not renegotiate the Paris agreement (in the aftermath of the US decision to pull out)."

In a statement released by a foreign ministry spokesperson, China has maintained its decision to support for the Paris Accord: "The general trend of green, low-carbon and sustainable development advocated by the Paris Agreement coincides with China's policy of promoting ecological advancement. However the other countries may change, China will continue to pursue innovative, coordinated, green, open and shared development, bear in mind its domestic requirements for sustainable growth, step up concrete efforts to deal with climate change and faithfully implement the Paris Agreement." Beijing also sees the opportunity to develop strategic renewable industries needed to combat climate change.

Having famously stated that climate change is a "hoax", Trump promises to resurrect the United States' mining and fossil fuel industry.

Source: *wired.com.uk*, 2017

**Figure 1: World Health Organization: Annual levels of PM2.5 (harmful pollutant)**



## Extract 2: Transition to a low-carbon economy?

The technological changes we need to transition to an energy infrastructure that does not make the planet hotter will require a fundamental shift in the way we power things, and that transition is already underway. Renewables—especially wind and solar—are already competitive or even cheaper in many countries with electricity produced by burning coal, oil and gas.

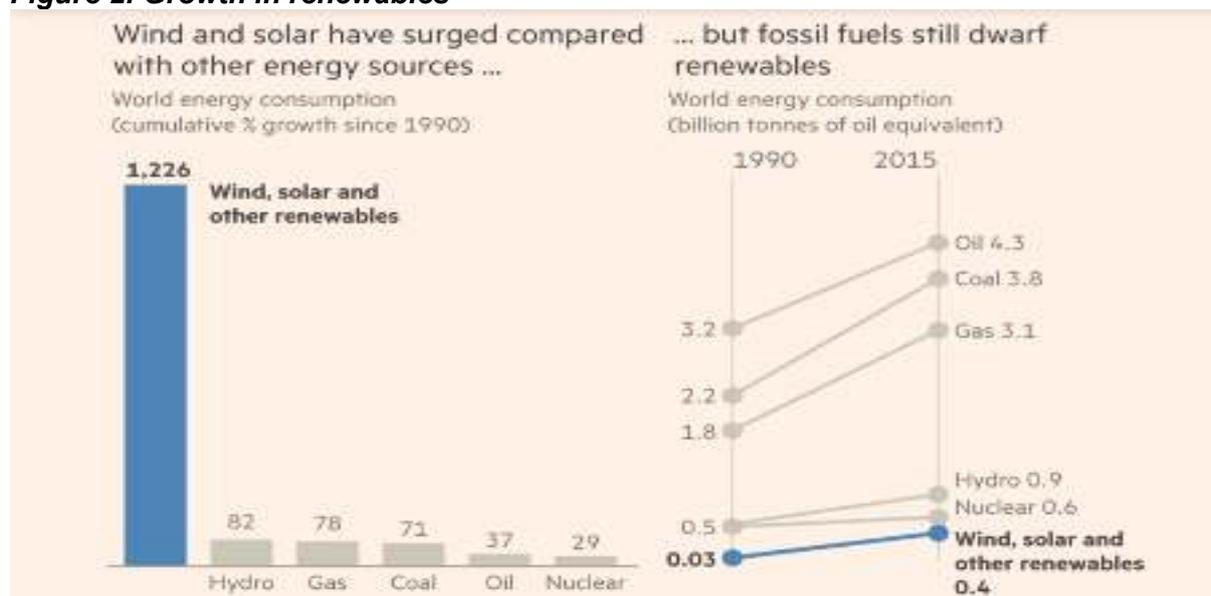
But that's not enough; keeping the power on during cloudy and calm days, and at night requires some way to store electricity which was a significant hurdle a few years ago. Without affordable storage, adding renewable capacity to existing electric grids can be difficult, as power produced during peak times (like mid-afternoon on a sunny day) must be dumped if there isn't demand for it as electricity cannot be stored and in many cases, there must still be fossil fuel fired coal plants to tide us over when the sun and wind are down.

In order to take full advantage of the ability of earth's natural energy endowments like sun and wind, we need to be able to store electricity cheaply. There is a lot of effort devoted to finding cheaper ways to store electricity, in everything from ultra-capacitors to better batteries. The other possibility is a region-wide grid to transport energy to where it is needed.

Technology development and adoption proceed in what often feels like fits and starts, but in aggregate is often described with an s-shaped or sigmoid curve, with few people adopting new technologies in the early, expensive and buggy stages, but with increasing adoption, the kinks and costs are worked out, leading to accelerated adoption, and finally market saturation. While it is clear that some renewable technologies are already cost-competitive and being adopted, we need cheaper storage technologies to keep that progress on the S-curve, which is why news of promising new technologies is watched so closely.

Source: Huffington Post Blog, 16 September 2016

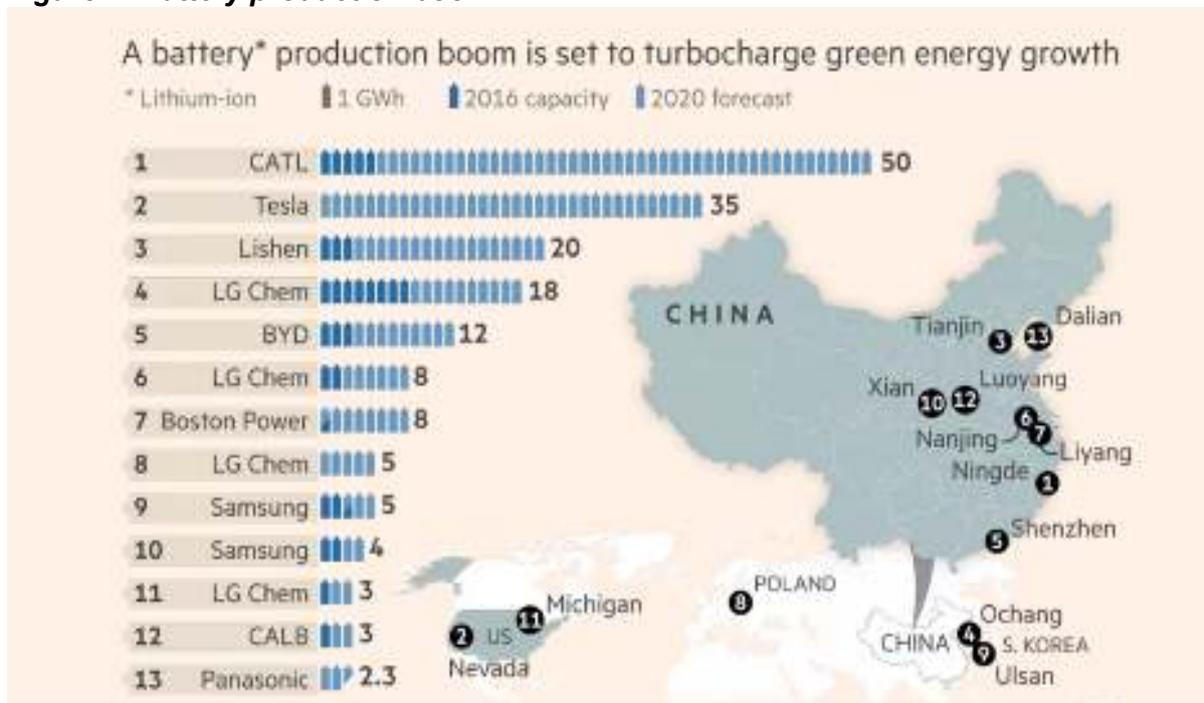
Figure 2: Growth in renewables



Source:BP

**Figure 3: Falling costs of renewables**

Source: Bloomberg New Energy Finance

**Figure 4: Battery production boom**

Source: Benchmark Mineral Intelligence

### Extract 3: China and India's Development Strategies

China and India's economic success has been largely interpreted as the result of thriving economic and political reforms. The unparalleled performance of China and India, and their influence on the world economy, has been larger and faster than implied in earlier research.

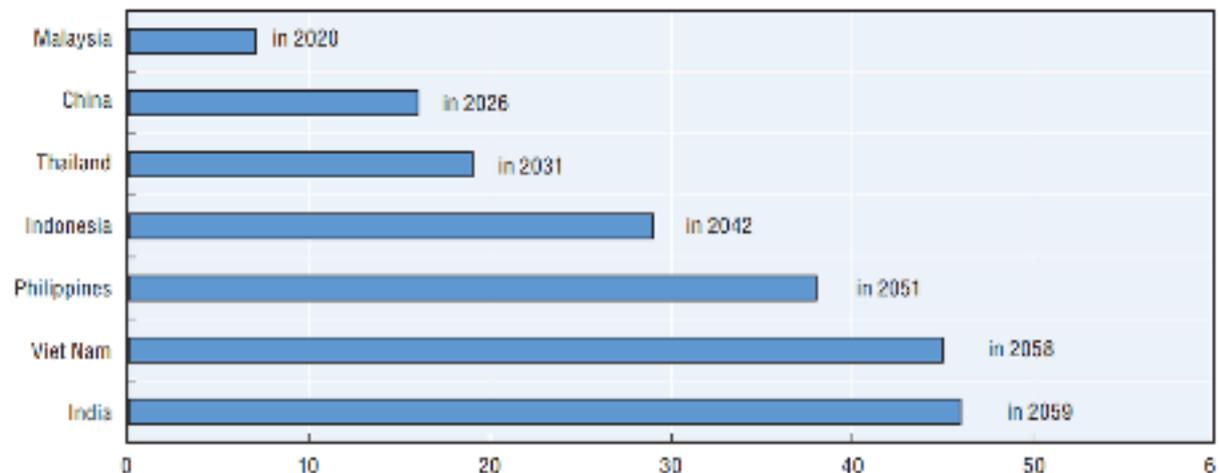
However, the political economy view of such phenomena cannot be overlooked, particularly in the case of China. Therefore, it is pertinent to emphasize the role of the government in designing and implementing successful development policies and structural reforms.

First, a key lesson from China's experience is the adoption of a pragmatic approach to economic reforms. Second, industrial policy has been at the heart of development policies and strategies in developing countries, although not particularly so in India. In the case of strategies and economic reforms, this policy's implementation produced varied outcomes, and with different levels of success. Third, trade and the liberalization of commercial policies have played a primary role in the Southern Engines' growth success.

Needless to say, growth and development strategies are challenged by the multiplicity or non-uniqueness of institutional arrangements needed for reforms to succeed and to achieve desirable ends.

*Source: United Nations University, 2010*

**Chart 1: "Best scenario" simulation of estimated time required to become high-income countries for middle-income countries in Emerging Asia (years)**



*Note: Based on World Bank's criterion for classifying economies, high-income countries are defined as having GNI per capita above USD 12 000 in 2013. Growth, CPI and exchange rate prospects in this simulation are in line with MPF-2014. Population projections are based on UN data. Source: 12OECD Development Centre*

**Table 1: Selected economic statistics of China and India (US\$)**

China 				India 			
Government							
GDP (M\$) [-]	2016	11,216,201 M\$		2,268,39 M\$	2016	GDP (M\$) [-]	
GDP per capita [-]	2016	5,113\$		1,701\$	2016	GDP per capita [-]	
Debt [-]	2015	4,782,637 M\$		1,568,137 M\$	2016	Debt [-]	
Debt (%GDP) [-]	2015	42.61%		68.56%	2016	Debt (%GDP) [-]	
Debt Per Capita [-]	2015	3,480\$		1,185\$	2016	Debt Per Capita [-]	
Deficit [-]	2015	312,762 M\$		148,206 M\$	2016	Deficit [-]	
Deficit (%GDP) [-]	2015	2.79%		6.57%	2016	Deficit (%GDP) [-]	
Expenditure (M\$) [-]	2016	3,615,775.0		829,678.4	2016	Expenditure (M\$) [-]	
Education Expenditure (M\$) [-]	1999	20,706.2		71,381.7	2013	Education Expenditure (M\$) [-]	
Education Expenditure (%Bud.) [-]	1999	12.63%		14.09%	2013	Education Expenditure (%Bud.) [-]	
Gov. Health Exp. (M\$) [-]	2000	21,210.4		5,389.8	2000	Gov. Health Exp. (M\$) [-]	
Gov. Health Exp. (%Bud.) [-]	2014	10.43%		5.05%	2014	Gov. Health Exp. (%Bud.) [-]	
Defense Expenditure (M\$) [-]	2016	215,723.2		55,342.5	2016	Defense Expenditure (M\$) [-]	
Defense Expenditure (%Bud.) [-]	2000	15.00%		14.09%	2010	Defense Expenditure (%Bud.) [-]	

Source: <http://countryeconomy.com> accessed on August 2017

### Question 1

- (a) Explain the need for the Paris Agreement. [6]
- (b) Assess the rationality of US and China's decisions with regards to the Paris Agreement. [8]
- (c) Discuss reasons for the continued growth in renewable energy and its related market. [8]
- (d) Discuss the policies the Indian and Chinese government should undertake in order to achieve high-income status. [8]

[Total: 30]

## Section B

Answer **two** questions from this section

- 2 The higher the level of education the more rational one becomes and the better decisions people make with regards to shopping for clothes and whether to volunteer for a good cause. Discuss this statement. [35]
- 3 Using academic principles and examples to illustrate your answer, assess the concept of Porter's Five Forces including its limitations. [35]
- 4 Foreign workers with skills in artificial intelligence, robotics and information technology workers as well as entrepreneurs in the sharing economy should be allowed into the host country whilst low-wage unskilled foreign labourer should be kept out. [35]  
  
Discuss the implications on efficiency for an economy that adopts the above policy.
- 5 The big and truly powerful multinational companies benefit disproportionately more than host countries. To what extent do you agree with this statement? [35]
- 6 Discuss possible strategies emerging economies and developed countries can employ to accelerate economic growth in a globalised world. [35]

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