ECON 336
ECONOMIC DEVELOPMENT

Semester and Year: Semester 1, 2011

Unit convenor: Joseph Macri

Prerequisites/Corequisites: ECON200 or ECON201 or ECON203 or ECON204 or ECON214 or ECON215 or BBA204 or BBA214; and (STAT122 or STAT170 or STAT171 or PSY122).

Credit Points: 3

Students in this unit should read this outline carefully at the start of the semester. It contains important information about the unit. If anything is unclear, please consult the unit convenor.

ABOUT THIS UNIT

This course is designed to give students a critical understanding of the inherent problems developing countries. It provides an in-depth analysis of the different explanations and measures that may be taken to foster economic development with a specific focus on the various constraints that may hinder economic development. The range of topics covered includes: the meaning of economic development, historical experience and major theories of economic development, income distribution and poverty, population growth, the role of education, international trade, sustainability, health, nutrition, third world debt and foreign aid, and the role of the market and institutions in fostering economic development.

TEACHING STAFF AND CONTACT DETAILS

Mr Joseph Macri,
Room: E4A-415
Phone: 9850 9469
E-mail: joseph.macri@mq.edu.au

UNIT WEB PAGE

The unit uses a Blackboard web page that can be accessed via http://learn.mq.edu.au/ which you should check this web page regularly. If you are unable to access the website because you are not aware of or have forgotten your username and password, please contact the IT helpdesk located on Level 1 of the Library on 9850 6500. The IT helpdesk will also be able to assist you with using Blackboard. Please note that there is also a help feature in Blackboard and you may refer to this instead for assistance in using...
Blackboard. If you have any problems accessing this web page you should go to the Online Teaching Facility support web page at http://online.mq.edu.au/docs/tecinf.html

**CONSULTATION TIMES**

Consultation times will be announced at the beginning of the course. Students experiencing significant difficulties with any topic in the unit are strongly encouraged to seek assistance immediately. Please note however that I will answer emails only sent from official Macquarie University email accounts.

**CLASSES**

There will be one three-hour session each week.

**Day and Time:** Thursday 10am-1pm  
**Room:** E7B T3

It is essential that students **attend all sessions**, as the examination/tests will focus on material discussed in the lectures and supplemented with the relevant readings.

**REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS**

**Prescribed Textbook:**


**Other Useful Readings**


Aghion, Philippe and Howitt, Peter (2009), The Economics of Growth, MIT Press, US.


Useful Resources on the Internet:

The following online resources will prove to be very useful.

- The International Development Research Centre (IDRC): http://www.idrc.ca/en/ev-1-201-1-DO_TOPIC.html
- International Monetary Fund: http://www.imf.org/
- World Trade Organisation: http://www.wto.org/
- Center for International Development at Harvard University: http://www.cid.harvard.edu/
- Institute of Development Studies: http://www.ids.ac.uk/ids/
- Asian Development Bank: http://www.adb.org
- World Resources Institute http://www.wri.org/ and http://earthtrends.wri.org/
- Various World Development Reports (available free online on World Bank website). Excellent source of information.
Useful Economic Development Journals:


**LEARNING OBJECTIVES**

At the completion of this course students will be able to:

1. understand the main issues confronting developing countries;
2. critically evaluate the growth and development performance of developing with a specific focus on issues of poverty and inequality;
3. have a solid understanding as to why there are very large differences in income per capita and output per worker across all countries;
4. communicate effectively on contemporary economic development issues;
5. understand the importance and impact of international trade on economic development;
6. understand the tradeoffs and choices confronting developing countries in the process of economic development and sustainability;
7. understand the importance of health, nutrition and education on economic development;
8. understand the current international policy debates on aid and development;
9. critically evaluate the role and importance of institutions and institutional change in fostering economic development.

**GRADUATE CAPABILITIES**

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop the capabilities the University's graduates will need to develop to address the challenges, and to be effective, engaged participants in their world.

Through these *Learning Outcomes*, this unit contributes to the development of the following *Graduate Capabilities*:

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>MQ Graduate capabilities which the unit contributes to explicitly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 5, 7, 9</td>
<td>Discipline Specific Knowledge and Skills; Critical Analytical and Integrative Thinking</td>
</tr>
<tr>
<td>2, 3, 6, 8</td>
<td>Problem Solving and Research Capability</td>
</tr>
<tr>
<td>4, 6</td>
<td>Engaged and Ethical Local and Global citizens</td>
</tr>
</tbody>
</table>
The teaching strategy in ECON336 recognises that students learn independently and assume responsibility for the learning process and with academic integrity. The teaching philosophy is articulated as follows:

Lectures – large group learning (3 hours each teaching week, except for seminar presentations)

Lectures are intended to provide an overview economic development both in theory and practice. The lectures will also provide students with a good understanding of major and current issues on development.

Independent Learning – learning by doing (approximately 6 hours each teaching week and 9 hours each week during the mid-semester recess)

ECON336 relies heavily on independent learning where students read the relevant chapters, revise lecture notes, understand questions that will be regularly asked in class and extend themselves by doing additional reading, questions, exercises and problems.

Seminars – small group presentations in Weeks 5, 7, 9, 11 and 13

In seminars (Weeks 5, 7, 9, 11, 13) all students in the entire course will be required make a short group presentation to the entire group on a current topic in economic development. The seminars topics will be an extension of the lecture material where students will be expected to thoroughly research and present their findings to the entire class.

NOTE: THE STRUCTURE AND ALLOCATION OF STUDENTS TO THEIR RESPECTIVE SEMINAR GROUPS WILL BE DONE IN WEEK 3 OF CLASS LECTURES.
The total marks for ECON336 will be calculated as follows:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weighting</th>
<th>Date</th>
<th>Learning Outcomes</th>
<th>Expected Student Workload (Hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical Exercise (Compulsory)</td>
<td>10%</td>
<td>Week 3 (1st hour of Lectures)</td>
<td>1,2</td>
<td>2</td>
</tr>
<tr>
<td>Class Test 1</td>
<td>10%</td>
<td>Week 6 (1st Hour of Lectures)</td>
<td>1-4</td>
<td>30</td>
</tr>
<tr>
<td>Class Test 2</td>
<td>15%</td>
<td>Week 12 (1st hour of Lectures)</td>
<td>1-9</td>
<td>30</td>
</tr>
<tr>
<td>Seminar Report and Presentations</td>
<td>15%</td>
<td>Allocated in Week 3</td>
<td>1-9</td>
<td>20</td>
</tr>
<tr>
<td>Final Examination</td>
<td>60%</td>
<td>Examination Period</td>
<td>1-9</td>
<td>48</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) **Statistical Exercise:**

It is a requirement of this course that each student undertake a simple statistical analysis. This statistical exercise is attached to this unit outline. Students are required to download data to a spreadsheet file and then compile a set of clearly labelled charts and tables with their own explanations and interpretations. The statistical exercise is due in **Week 3** of lectures.

(b) **Class Tests: (Total 25%)**

Class tests 1 and 2 will be conducted in the **first hour** of lectures in **Week 6 and 12**, respectively, of the scheduled classes. The structure and examinable content will be provided to students in due course. It is important to note that absence from class tests will result in a mark of zero, unless a student’s absence is supported by acceptable documented (medical) evidence.

(c) **Seminar Presentations: (15%)**

There will be **6 seminar** meetings (Weeks 3, 5, 7, 9, 11, 13) during the semester. Attendance at seminars, preparation for seminars and participation in class discussion is compulsory. To re-emphasise, attendance at seminars and contribution to seminar discussion are partial requirements for completing this course satisfactorily. At each seminar meeting a class roll will be taken. **For each seminar missed, you will lose 1% of the TOTAL assessment marks. PLEASE NOTE: SEMINAR MATERIAL IS EXAMINABLE FOR BOTH** Each student will be allocated to a seminar group in **Week 3** of Lectures. Each group will be required to present their allocated topic to the lecture group in
their allocated week. In addition, each group will be required to submit a 5-6 page hard copy **AND electronic copy** on the seminar that they are presenting **ON THE DAY** of their presentation. This report is a **GROUP** submission and therefore students in each seminar group should meet several times before the seminar presentation to discuss the topic and to make arrangements for the seminar presentation as well as the submission of the report. These arrangements should include the division of the topic so that each student participates in the group presentation.

The submission of the hard copy and electronic version of the seminar report on the **day of your allocated** seminar is **compulsory** and each student must participate in a verbal presentation on their allocated topic. Failure to fulfil any one of these conditions will mean that course requirements will not have been met and will involve automatic failure in the unit. The non-attendance at a seminar meeting when an individual is due to present a paper is clearly regarded as unacceptable. If you do have genuine problems of misadventure which affect the presentation of your seminar please let me know **before** the relevant seminar meeting is due to be held.

In the evaluation of a student’s seminar presentation/ report the following factors (criteria) will be considered:

**Criteria for Presentations:**

1. The standard displayed in English expression and sentence construction and the level attained in the written articulation of ideas.

2. The ability to exhibit critical analysis in the subject area.

3. The ability to develop ideas in a logical or sequential fashion.

4. **STUDENTS MUST NOT SIMPLY READ FROM THEIR PAPERS.**

5. Students will also have the opportunity to evaluate their peers, via a Peer Evaluation form, which students will be allowed to examine at the end of the semester.
SEMINAR TOPICS

Seminar 1 (Week 3)

The purpose of this seminar is to allocate seminar topics, submission of the Compulsory Statistical Exercise, which is attached at the back of this Unit Outline, and the remainder of the time for the first seminar will be devoted to the following questions:

(i) Why is an understanding of development crucial to policy formulation in developing nations? Do you think it is possible for a nation to agree on a rough definition of development and orient its strategies accordingly?

(ii) What are the main points raised in Amartya Sen’s article?

Todaro, Chs. 1-4.

Sen, Amartya (1988) The concept of Development, Handbook of Development Economics, Volume 1, Edited by H. Chenery and T.N Srinivasan. (This chapter will be placed on the ECON336 website, under Seminar 1). Note: it will be in your interest to read this article as it will be examinable in the mid-semester test 1 and final examination.

Seminar 2 (Week 5)

In 1973, Robert McNamara (President of the World Bank and former Professor at Harvard Business School) wrote: “The greatest single obstacle to the economic and social advancement of the majority of the peoples in the underdeveloped world is rampant population growth” (McNamara, R., 1973, One Hundred Countries, Two Billion People. New York: Praeger, p.31).

What is the relationship between population growth and economic development? Explain why population growth may be an impediment to achieving sustainable economic development? If it is a problem, should the government try to limit population growth? Discuss counter-arguments that view population growth as a positive driver of economic development.

Suggested References:

Todaro, Ch. 6.

Perkins et al, Ch. 7

Thirwall, Ch. 8


Seminar 3 (Week 7)

How do the trade policies of developed countries affect the ability of less developed countries to benefit from greater participation in the world economy? What are the costs and benefits of trade liberalisation? Explain how and why, governments may seek to regulate trade?

Suggested References:

Todaro, Ch. 13.

Perkins et al, Ch. 18.

Hogendorn, Chs. 13, 14 & 15.


Seminar 4 (Week 9)

“The Stern Review: The Economics of Climate Change, released in October 2006, immediately captured the attention of governments, policymakers and the public. The Review’s central message is that climate change is a serious threat to human welfare that demands urgent global action now. It warns that climate change has the potential to lead to major economic and social disruption- on a scale similar to the world wars and the great depression - later in this century and beyond.” (Productivity Commission, p. IX, 2008).

What are the main objectives of the Stern Review? What empirical evidence is being put forward to suggest that there is a serious threat to our environment, particularly if we do not act? Is the evidence credible? What, if any, are the drawbacks of a study of this nature (paying particular attention to the assumptions of the models and the recent report by the Productivity Commission (2008))? Why are developing countries particularly vulnerable to many of the problems likely to be caused by global warming?

Suggested References:

Stern Review Source: http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm


The Intergovernmental Panel on Climate Change http://www.ipcc.ch/


Seminar 5 (Week 11)

What is foreign aid (how is it defined)? What are the different types of foreign aid? Who are the big providers of foreign aid? Who are the big recipients of foreign aid? Is there ever validity in the idea of using foreign aid to break a vicious circle of poverty?

Suggested References:

Cypher & Dietz pp 583 – 589.

Todaro & Smith Ch 14.


Seminar 6 (Week 13)

Suggested References:

“An estimated 158 million children aged 5-14 are engaged in child labour - one in six children in the world. Millions of children are engaged in hazardous situations or conditions, such as working in mines, working with chemicals and pesticides in agriculture or working with dangerous machinery. They are everywhere but invisible, toiling as domestic servants in homes, labouring behind the walls of workshops, hidden from view in plantations” Source: http://www.unicef.org/protection/index_childlabour.html).

What is the extent of the problem of child labour? The report and presentation should distinguish between the different classifications of working children: “economically active children”, “child labour”, “children in hazardous work” and “children in unconditional worst forms of child labour”. You should also look at the problem globally, regionally, by age, by gender and by country.

What are the costs and benefits associated with the elimination of child labour? What are the different policy approaches to the problem of child labour? Provide examples of policy initiatives which have been used to combat the problem of child labour.

Suggested readings


Todaro & Smith Ch 8

(d) Final Examination: (60%)

A final examination is included as an assessment task for this unit to provide assurance that:

i) the product belongs to the student and
ii) the student has attained the knowledge and skills tested in the exam.
A 2 hour final examination for this unit will be held during the University Examination period.

The University Examination period in First Half of 2011 is from June 6–24 (inclusive).

You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations. [http://www.timetables.mq.edu.au/exam](http://www.timetables.mq.edu.au/exam)

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. The University’s policy on special consideration process is available at [http://www.mq.edu.au/policy/docs/special_consideration/policy.html](http://www.mq.edu.au/policy/docs/special_consideration/policy.html)

If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period.

The Macquarie university examination policy details the principles and conduct of examinations at the University. The policy is available at: [http://www.mq.edu.au/policy/docs/examination/policy.htm](http://www.mq.edu.au/policy/docs/examination/policy.htm)

**IMPORTANT NOTICE ON FINAL EXAM**

Students **MUST** pass the **FINAL EXAMINATION** in order to satisfactorily complete an economics unit. Failure to fulfil this condition will involve automatic failure in the unit.

**Note:** It is also Macquarie University policy **NOT** to set early examinations for individual or groups of students. All students are expected to ensure that they are available until the end of the teaching semester; that is the final day of the official examination period. Therefore, please **DO NOT REQUEST** an earlier exam.
GRADES

Macquarie University uses the following grades in coursework units of study:

HD - High Distinction
D - Distinction
CR - Credit
P - Pass
F - Fail

Grade descriptors and other information concerning grading are contained in the Macquarie University Grading Policy which is available at: http://www.mq.edu.au/policy/docs/grading/policy.html

COURSE OVERVIEW

(a) Meaning of Development, Historical Experience and Major Theories of Economic Development
(b) Income Distribution and Poverty, Social Indicators and distribution.
(c) Population Growth and Economic Development and Rural-Urban Migration
(d) Issues of Education and the Agricultural Sector in Development
(e) International Aspects of Development: The Structure of World Trade: The Classical Arguments for International Trade - Static Allocative Effects and Dynamic Growth Effects.
(f) Trade Policies in Developing Countries: Export Promotion, Import Substitution, and Economic Integration
(g) Economic Growth and Development
(h) Sustainable Development
(i) The World Bank, IMF and Structural Adjustment; Global Financial Crisis.
(j) Third World Debt and Foreign Aid
(k) Health Development

LECTURE OUTLINE

WEEK 1

Meaning of Development, Historical Experience and Classic Theories of Economic Development

Todaro and Smith, Chs. 1-4.
Cypher and Dietz, Chs. 3-4
Perkins et al., Chs. 1-4.


WEEK 2

Income Distribution, Poverty, Social Indicators and Distribution

Todaro and Smith, Ch. 5.

Perkins et al., Ch. 6.


WEEK 3

Population Growth, Economic Development and Rural-Urban Migration

Todaro and Smith, Chs. 6 & 7

Cyper and Dietz, Ch. 12

Perkins et al, Ch. 7


WEEK 4

Issues of Education and the Agricultural Sector in Development

Todaro and Smith, Chs. 8 & 9.

Cyper and Dietz, Chs. 11 &12

Perkins et al, Ch. 8.


WEEK 5

The Structure of World trade: The Classical Arguments for International Trade - Static Allocative Effects and Dynamic Growth Effects.

Todaro and Smith, Ch. 12.

Hogendorn, Ch. 13.

Thirlwall, Ch. 16.

WEEK 6

Mid-Semester Class Test (1st Hour)

Trade Policies in Developing Countries: Export Promotion, Import Substitution, and Economic Integration

Todaro and Smith, Ch. 12


WEEK 7

Economic Growth and Development

Todaro and Smith Ch. 3

Thirwall Ch.4


**WEEK 8**

**Economic Growth and Development & Sustainable Development**

Todaro and Smith Ch.10

Thirwall Ch.4


**WEEK 9**

**Sustainable Development**

Todaro and Smith Ch. 10

Thirwall pp. 284-90


**WEEKS 10 -12**

**Class Test 2 (Week 12)**

*The World Bank, the IMF, and the Effectiveness of Structural Adjustment and Stabilisation Policies: The international context: financial crisis and beyond*

Todaro & Smith Ch 13.

Cypher & Dietz Ch 17.

World Bank web site; [www.worldbank.org](http://www.worldbank.org)

IMF web site; [www.imf.org](http://www.imf.org)

Bretton Woods Project web site; [www.brettonwoodsproject.org](http://www.brettonwoodsproject.org)


WEEK 13

Health and Development

Todaro & Smith, Ch 8.


Websites for Food & Agricultural Organization (FAO) - www.fao.org and for the World Health Organization (WHO) - www.who.int. Both the FAO and the WHO are UN organizations and their websites are full of lots of information, reports and papers that can be accessed for free. You can also check the World Bank website again as it has information on health and nutrition. In particular, the FAO’s The State of Food Insecurity in the World Reports 1999-2004 are referenced regularly in the lectures.


**ACADEMIC HONESTY**

The nature of scholarly endeavour, dependent as it is on the work of others, binds all members of the University community to abide by the principles of academic honesty. Its fundamental principle is that all staff and students act with integrity in the creation, development, application and use of ideas and information. This means that:

- all academic work claimed as original is the work of the author making the claim
- all academic collaborations are acknowledged
- academic work is not falsified in any way
- when the ideas of others are used, these ideas are acknowledged appropriately.
Further information on the academic honesty can be found in the Macquarie University Academic Honesty Policy at http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

GRADING APPEALS AND FINAL EXAMINATION SCRIPT VIEWING

If, at the conclusion of the unit, you have performed below expectations, and are considering lodging an appeal of grade and/or viewing your final exam script please refer to the following website which provides information about these processes and the cut off dates in the first instance. Please read the instructions provided concerning what constitutes a valid grounds for appeal before appealing your grade.

http://www.businessandeconomics.mq.edu.au/new_and_current_students/undergraduate_current_students/how_do_i/grade_appeals

STUDENT SUPPORT SERVICES

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at http://www.student.mq.edu.au.

IT CONDITIONS OF USE

Access to all student computing facilities within the Faculty of Business and Economics is restricted to authorised coursework for approved units. Student ID cards must be displayed in the locations provided at all times.

Students are expected to act responsibly when utilising University IT facilities. The following regulations apply to the use of computing facilities and online services:

● Accessing inappropriate web sites or downloading inappropriate material is not permitted. Material that is not related to coursework for approved unit is deemed inappropriate.
● Downloading copyright material without permission from the copyright owner is illegal, and strictly prohibited. Students detected undertaking such activities will face disciplinary action, which may result in criminal proceedings.

Non-compliance with these conditions may result in disciplinary action without further notice.

Students must use their Macquarie University email addresses to communicate with staff as it is University policy that the University issued email account is used for official University communication.
ECON336

ECONOMIC DEVELOPMENT

COMPULSORY STATISTICAL EXERCISE

2011

DUE: WEEK 3, LECTURES
Compulsory Statistical Exercise

Part A:

Select the following country according to the beginning letter of your own surname and answer the following questions:

A – D - India
E – H - Argentina
I – L - Brazil
M – P - China
Q – T - Tunisia
U – Z - Vietnam

1. For your selected country listed above visit the following website http://data.worldbank.org/indicator and find out the latest data on the following:

   • GNI (Formerly GNP) per capita, Atlas Method (current US$)
   • Three other indicators of the level of development (your choice).

   Justify, in one sentence, why you selected the three other indicators.

2. For the same country, taking the most recent date possible, what is the GDP per capita at common (US, i.e. PPP) prices as measured in the Summers and Heston project (http://pwt.econ.upenn.edu/php_site/pwt62/pwt62_form.php)

3. Using the same country go to the following website http://iresearch.worldbank.org/PovcalNet/jsp/index.jsp and calculate the various measures for the latest period available and then copy this data into an Excel spreadsheet, which you then copy and include in your hard copy submission (Note: For students doing China please do both China- rural and China-urban; students doing Argentina it is Argentina-Urban).

Part B:

Cross-country data are frequently used for the inductive analysis of development patterns and also for testing theoretical hypotheses about development. Consider differences in the child mortality rate (CMR) across the continuum of development, as measured by GNP (GNI) per capita (call this Y). The database for this exercise is given in the Table 1 below.

(a) From the data in Table 1 below calculate the average values of CMR and Y for:

   (i) Low- income countries
   (ii) Low-middle –income countries
   (iii) Upper-middle-income countries
Table 1
Child Mortality Rates (CMR) and Per Capita Income for 24 Selected LDC's

<table>
<thead>
<tr>
<th>Low-Income Economies</th>
<th>GNP (GNI) per capita (PPP$)</th>
<th>Under-5 Mortality Rate per 1,000 live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>340</td>
<td>216</td>
</tr>
<tr>
<td>Tanzania</td>
<td>630</td>
<td>158</td>
</tr>
<tr>
<td>India</td>
<td>1,210</td>
<td>104</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>1,230</td>
<td>127</td>
</tr>
<tr>
<td>Kenya</td>
<td>1,360</td>
<td>110</td>
</tr>
<tr>
<td>Senegal</td>
<td>1,750</td>
<td>113</td>
</tr>
<tr>
<td>China</td>
<td>1,910</td>
<td>43</td>
</tr>
<tr>
<td>Honduras</td>
<td>1,930</td>
<td>70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low-Middle-Income Economies</th>
<th>GNP (GNI) per capita (PPP$)</th>
<th>Under-5 Mortality Rate per 1,000 live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>2,130</td>
<td>142</td>
</tr>
<tr>
<td>Bolivia</td>
<td>2,270</td>
<td>115</td>
</tr>
<tr>
<td>Cameroon</td>
<td>2,300</td>
<td>124</td>
</tr>
<tr>
<td>Philippines</td>
<td>2,480</td>
<td>56</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2,810</td>
<td>24</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2,970</td>
<td>98</td>
</tr>
<tr>
<td>Peru</td>
<td>3,080</td>
<td>75</td>
</tr>
<tr>
<td>Egypt</td>
<td>3,670</td>
<td>93</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper –Middle Income Economies</th>
<th>GNP (GNI) per capita (PPP$)</th>
<th>Under-5 Mortality Rate per 1,000 live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tunisia</td>
<td>5,130</td>
<td>63</td>
</tr>
<tr>
<td>Brazil</td>
<td>5,250</td>
<td>76</td>
</tr>
<tr>
<td>Hungary</td>
<td>5,740</td>
<td>21</td>
</tr>
<tr>
<td>Columbia</td>
<td>5,760</td>
<td>29</td>
</tr>
<tr>
<td>Argentina</td>
<td>6,080</td>
<td>38</td>
</tr>
<tr>
<td>Mexico</td>
<td>7,490</td>
<td>49</td>
</tr>
<tr>
<td>Malaysia</td>
<td>8,050</td>
<td>20</td>
</tr>
<tr>
<td>Korea, Republic</td>
<td>8,950</td>
<td>18</td>
</tr>
</tbody>
</table>


(b) (i) Plot the three points corresponding to the averages you calculated in part (a). *(Note: Label GNP(GNI) per capita on the horizontal axis and Child Mortality on the vertical axis)*

(ii) What do you observe about the general relationship between Y and CMR?

(c) Now examine several individual countries in relation to the pattern that you derived from the group averages.
(i) From Table 1, what are the values of CMR and Y for each of the following eight countries?

Ethiopia
China
Honduras
Pakistan
Cameroon
Sri Lanka
Brazil
Malaysia

(ii) Plot these eight points on the same diagram from part (b).

(iii) What factors other than Y might account for the deviations between CMR values and the average pattern established in part b? Provide two plausible answers.

(d) Do the country-specific statistics invalidate the presumption that there is a pattern to the changes in child mortality rates that occur in the course of economic development?

NOTE: LENGTH NO MORE THAN 2 PAGES (INCLUDING DIAGRAMS).
MACQUARIE UNIVERSITY
ECON336 ECONOMIC DEVELOPMENT STATISTICAL EXERCISE

Coversheet Declaration

Unit .......................... Assignment ............................

Name ......................... Student number ......................

I certify that

- This assignment is my own work, based on my personal study and/or research
- I have acknowledged all material and sources used in the preparation of this assignment, including any material generated in the course of my employment
- If this assignment was based on collaborative preparatory work, as approved by the teachers of the unit, I have not submitted substantially the same final version of any material as another student
- Neither the assignment, nor substantial parts of it, have been previously submitted for assessment in this or any other institution
- I have not copied in part, or in whole, or otherwise plagiarised the work of other students
- I have read and I understand the criteria used for assessment
- The assignment is within the word and page limits specified in the unit outline
- The use of any material in this assignment does not infringe the intellectual property / copyright of a third party
- I understand that this assignment may undergo electronic detection for plagiarism, and a copy of the assignment may be retained on the database and used to make comparisons with other assignments in future

Signature .................................................................

Date .................................................................

This declaration is a summary of the University policy on Academic Honesty. For the policy in full, please refer to Student Information in the Handbook of Undergraduate Studies or http://www.mq.edu.au/policy/docs/academic_honesty/policy.html