Learning and Teaching Practices in Economics – Example 1
Catering for Learner Diversity: facilitating students' mastery of complicated macroeconomic models

Introduction

Many students have difficulty in mastering complicated abstract macroeconomic models which consist of various variables, for instance, how an increase in people's wealth affects the market interest rate. The underlying hurdle that students face may be one or some of the following:

· identifying the relevant independent, dependent and constant variables involved;

· identifying the relevant relationship between any two variables involved;

· identifying the correct chained cause-effect relationships (i.e. with correct sequence) given a change in the independent variable in a problem; and

· presenting these chained cause-effect relationships in texts and graphs, etc.

Appropriate supports provided by teachers in accordance with the difficulties faced by students are important for helping them to overcome their problems.

Basic information of the school

· It is an aided, co-educational school;

· Most students are weak in analytical and writing skills;

· Chinese is the medium of instruction in Economics.

Details of the methods

(a) <u>The topic</u>
Factors affecting the market interest rate

(b) <u>The learning and teaching stage at which the method is practised</u>
After completing the topic of money market including money demand, money supply and the determination of equilibrium market interest rate, the teacher intended to consolidate and assess students' learning through a short quiz. The question is "以圖輔助，解釋當人們的財富增加對市場利率的影響。" Six versions of the learning task have been designed to cater for learners' diversity.

(c) <u>The various versions</u>

Version A

題目：以圖輔助，解釋當人們的財富增加對市場利率的影響。(7 分)

❶ *The question*

利率

Ms

N₂

N₁
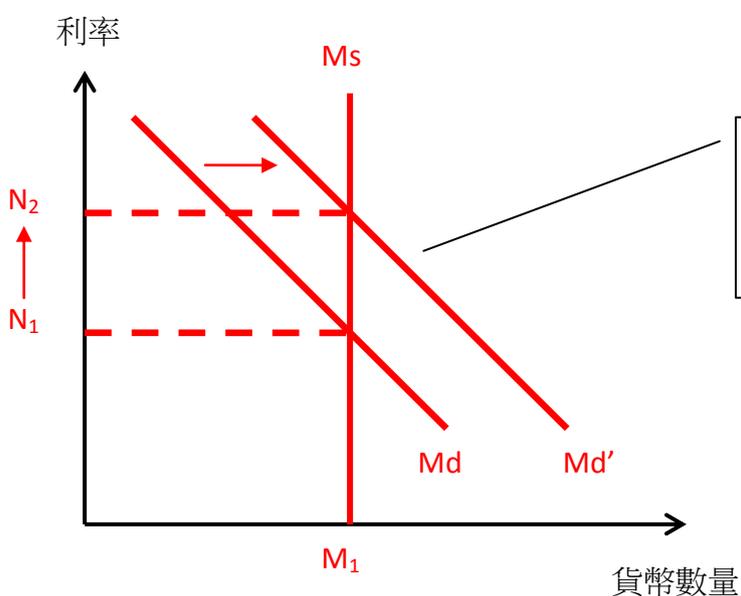
❷ *The required diagram with the x-axis variable and y-axis variable provided. Students are required to draw the red parts.*

Md   Md'

M₁

貨幣數量

當人們的財富__增加__(增加/減少)，人們會__增加__(增加/減少)消費。這會導致交易性貨幣需求__上升__(上升/下降)。

因此，貨幣需求會__上升__(上升/下降)，貨幣需求曲線會向__左__(左/右) 移動。最終，市場利率會__上升__(上升/下降)。

- ❸ *The skeleton of the answer (analysis) is provided. That is,*
  - *all relevant variables (independent and dependent) are provided;*
  - *the variables forming a relationship are put together;*
  - *the sequence of the chained cause-effect relationships is provided.*
- ❹ *Students are only required to choose the correct cause-effect relationship between two variables.*
- ❺ *It is relatively easy for students to identify the answers in this version. This helps students develop their sense of achievement and maintain motivation. Hence, this version can be the first step for helping the weakest students.*

Version B

題目	以圖輔助，解釋當人們的<u>財富增加</u>對<u>市場利率</u>的影響。(7 分)
原因	[財富] 當人們的財富增加，
影響 #1	[消費] (↑ / ↓) 人們會＿增加＿(增加 / 減少)消費。
影響 #2	[交易性貨幣需求] (↑ / ↓) 這會導致交易性貨幣需求＿上升＿(上升 / 下降)。
影響 #3	[貨幣需求] (↑ / ↓) 貨幣需求會＿上升＿(上升 / 下降)。
供需圖	
結果	[市場利率] (↑ / ↓) 最終，市場利率會＿上升＿(上升 / 下降)。

Version C

題目：以圖輔助，解釋當人們的財富增加對市場利率的影響。(7 分)

❶ *The question*

例子：

題目：以圖輔助，解釋當人們的儲蓄意欲增加對市場利率的影響。(7 分)
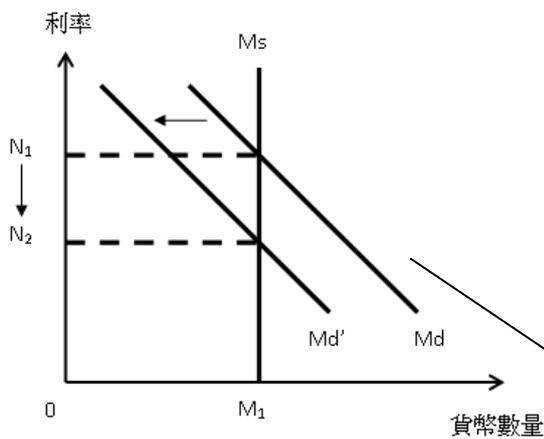
❷ *Students are provided with a parallel question together with the main points of the answer and a well-labeled diagram. The only difference between the two questions is the independent variable.*

利率

Ms

N_1

N_2

Md' Md

0   M_1 貨幣數量

❸ *Students may make reference to the sample diagram and the scoring criteria to construct their own diagram.*

圖中顯示
- 市場利率的改變 (1 分)
- 垂直的貨幣供應曲線 (1 分)
- 貨幣需求曲線向左移 (1 分)

❹ *Students may make reference to the textual answer of the parallel question to analyse the problem at hand and construct their own answer.*

文字解釋
- 當人們的儲蓄意欲增加，他們會減少消費。(1 分)
- 這會導致交易性貨幣需求下降。(1 分)
- 貨幣需求會下降。(1 分)
- 貨幣需求曲線會向右移動。最終，市場利率會下降。(1 分)

ž❺ *In version C, a parallel question with answer is provided. Students have to identify the similarities and differences between the parallel question and the question they need to tackle. They then transfer their knowledge acquired from the parallel question to construct their own answer.*

Version D

題目：以圖輔助，解釋當人們的財富增加對市場利率的影響。(10+10 分)		

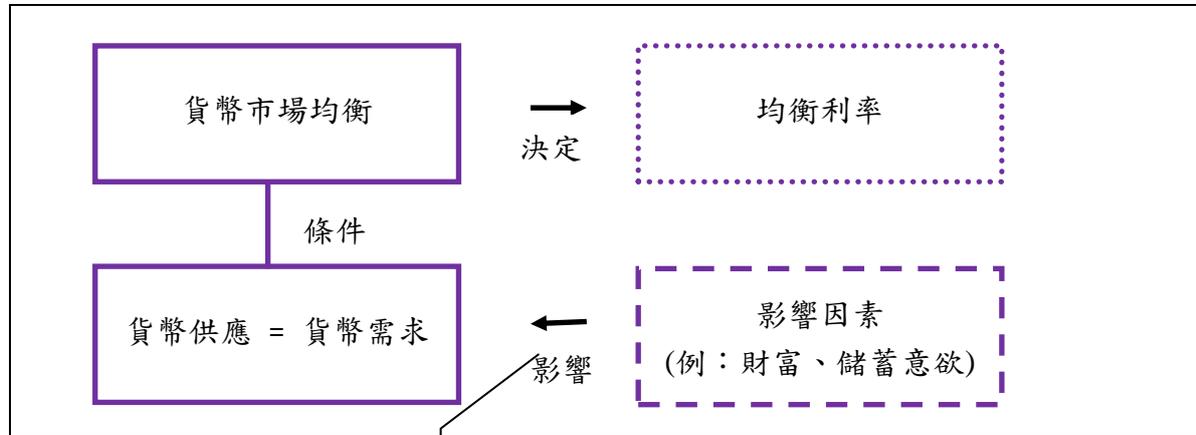| 評分準則	分數
原點	1
X 軸 (變項)	0.5
Y 軸 (變項)	0.5
貨幣供應曲線	1
貨幣數量：M_1	1
貨幣需求曲線 (舊)	1
貨幣需求曲線 (新)	1
箭號(貨幣需求曲線的改變)	1
市場利率(舊：N_1)	1
箭號(市場利率的改變)	1
市場利率(新：N_2)	1
圖表總分	**/10**

❹ *Students follow the scoring criteria to construct the diagram.*

❺ *Students refer to the variables (clues) provided in the question and analyse how these variables are affected sequentially.*

	評分準則	分數
當人們的財富增加，人們會增加消費。	財富及消費	1+1
這會導致交易性貨幣需求上升。	交易性貨幣需求	1+1
貨幣需求會上升。	貨幣需求	1+1
貨幣需求曲線會向左移動。	貨幣需求曲線	1+1
最終，市場利率會上升。	市場利率	1+1
	文字解釋總分	**/10**

❷ *The scoring criteria for the diagram are provided. This serves as a framework for guiding students to draw the diagram with the required features.*
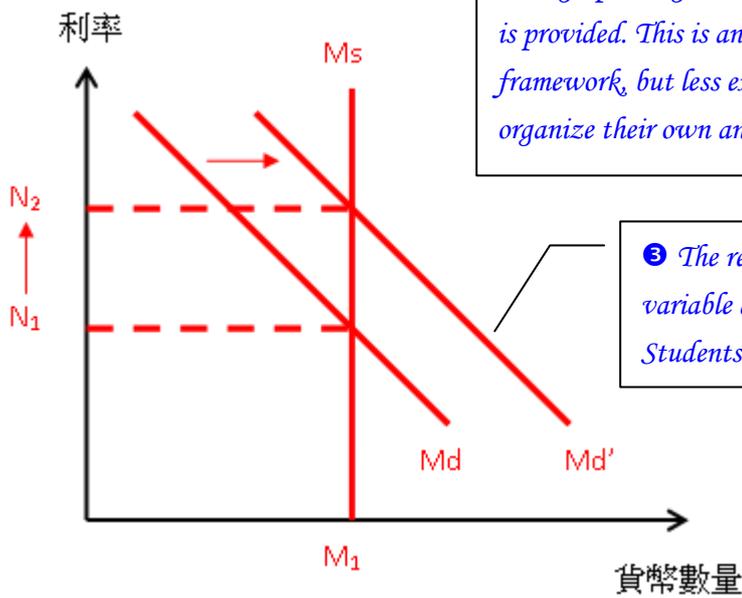
❸ *The variables included in the analysis (i.e. answer) together with the scores are listed out. Students are required to identify the sequential changes of these variables.*

❻ *Compared to version C, the clues provided in version D are less obvious. Students are not given with any sample but just the variables and curves relevant to the analysis. They need to think how the variables and curves are affected as well as write out the textual analysis on their own.*

Version E

題目：以圖輔助，解釋當人們的財富增加對市場利率的影響。(7 分)

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┌─────────────────┐              ┌┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┐
│   貨幣市場均衡    │  ───決定──▶  ┊    均衡利率      ┊
└─────────────────┘              └┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┘
        │  條件
┌─────────────────┐              ┌┄ ┄ ┄ ┄ ┄ ┄ ┄ ┄┐
│ 貨幣供應 = 貨幣需求 │  ◀───影響──  ┊    影響因素      ┊
└─────────────────┘              ┊ (例：財富、儲蓄意欲) ┊
                                 └┄ ┄ ┄ ┄ ┄ ┄ ┄ ┄┘
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利率

Ms

N_2

N_1

Md Md'

M_1

貨幣數量

當人們的財富增加，人們會增加消費。這會導致交易性貨幣需求上升。

因此，貨幣需求會上升，貨幣需求曲線會向左移動。最終，市場利率會上升。

Version F

題目：
以圖輔助，解釋當人們的財富增加對市場利率的影響。(7 分)

利率

Ms

N₂

N₁

Md   Md'

M₁

貨幣數量

關鍵字：
財富、消費、交易性貨幣需求、貨幣需求、利率

Remarks

(a)   Apart from the six versions suggested in this example, teachers may also break down the question into several parts for helping students to reach the final answer. One possibility is:

        (i)   In which market the market interest rate is determined?

        (ii) Will an increase in people's wealth affect the money demand? If yes, how?

        (iii) Will an increase in people's wealth affect the money supply? If yes, how?

        (iv) In light of the above analysis, with the aid of a diagram, explain how an increase in people's wealth affects the market interest rate.

    Teachers may further break down each of the above part into sub-parts according to the readiness of the students.

(b)   Teachers may notice that the above methods can be applied to topics which emphasize chained cause-effect relationship like demand and supply analysis in microeconomics and AS-AD analysis in macroeconomics.