

A Review of High School Economics in the Philippines: 1902–2005*

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"The economic world is a misty region. The first explorers used unaided vision. Mathematics was a lantern by which what was before dimly visible now looms up in firm, bold outlines. The old phantasmagoria disappear. We see better. We see further."

-Irving Fisher (1892)¹

ABSTRACT

Economics is an important component of social science instruction in secondary level education in the Philippines. This paper aims to trace the evolution of economics education in Philippine high school through a review of all available textbooks, from the very beginning of the institution of the subject. Analyzed are the changing content, the cor-

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¹ Quoted in Sydsæter and Hammond (1995).

rectness of the concepts taught, the language used in the books, the way different contemporary Philippine issues in economic development is treated, and the writer of the textbook himself or herself. The analysis also looks at the guidelines writers use in coming up with reference materials intended for a course in economics for graduating high school students. Moreover, the way the government approves these books is also examined. The findings suggest that economics has not been spared from errors, inconsistencies, and problems that other subjects presumably face in the basic education curriculum of the Philippines.

INTRODUCTION

Economics is an important component of social science instruction in secondary level education in the Philippines. In fact, it is a required course for graduating high school students all over the country.

History of economics in Philippine secondary schools²

The creation of a general curriculum for basic education (elementary and high school) was far way back to the objective of the American colonial government to promulgate the English language. In doing so, the Americans deemed it important to establish a system of massive public instruction in the country.

To meet this main objective, Act 372, which mandated the establishment of a national curriculum for basic education, was ratified through Philippine Legislation. The said curriculum was created by the Bureau of Education, which first specified the subjects that were to be contained in each of the year levels in basic education.

In the same year, economics first appeared in the secondary curriculum, which was intended for fourth year students. Although there were four existing curricula for different secondary schools (with different names for the course in economics), the general theme of economics being a basic course was carried by these curricula.

Hugo Herman Miller, then Head of the Department of Industrial Information of the Bureau of Education, was tasked by Frank R. White, Director of Education, to prepare a year's course for economics for high school. White asked Charles H. Storms, instructor in the Philippine Normal School, to assist

² A chronological outline of significant events in Philippine high school economics can be found in Appendix A.

Miller in the preparation of the book. Storms was mainly responsible for compiling the data sets needed for the book to be made (Miller 1913). The *Outline of a Year's Course* was submitted and approved in 1912.³

Miller's book, *Economic Conditions in the Philippines*, was published the following year, 1913. The Bureau of Education adapted the title of the book as the title of the economics course in high school. The book was updated in 1920 and again in 1932 in which it was released under a new title, *Principles of Economics Applied to the Philippines*.

In June 1949, the Department of Education through the Bureau of Public Schools drafted a unit plan titled *Course in Economics for the Fourth Year Classes in Secondary Schools*, and the Board of Textbooks released a *Brief Outline of the Course in Economics for the Fourth Year Classes in Secondary Schools* in consonance with the book, *Economic Education*, authored by the National Council for the Social Studies. With these publications, a second book in high school economics came out in 1956 authored by Jose L. Celeste, Diosdado G. Capino, and Zosimo C. Ella. In addition, another introductory economics textbook for high school was released in 1949 authored by Andres V. Castillo.

Nothing much happened in the intervening years until Martial Law. With the declaration of Martial Law and the launching of the New Society (*Bagong Lipunan*) months later, the government through the Ministry of Education, Culture and Sports launched a revision of the curricula of both the elementary and high school levels across the country. At the secondary level, economics was within the social sciences domain then known as the *Bagong Araling Panlipunan sa Bagong Lipunan*. It was taught as the Philippine Development and Progress course, intended for third year students.

Under the New Secondary Education Program-Secondary Education Development Program (NSEC-SEDP) in 1989, economics replaced the old Philippine Progress and Development course, which was also offered in the third year. By 1998, under the Philippine Secondary Schools Learning Competencies (PSSLC), the economics course was moved to the fourth year in place of the World History course, which was to be given in the third year. This was also the start of the thrust for the use of the national language for academic instruction, which stipulated that social science courses in high school would have to be taught either in English or in Filipino, with economics being no exception.

³ In *Economic Conditions in the Philippines*, it was indicated, however, that Miller completed the outline in 1911.

CURRICULAR OUTLINES AND REVIEWS

The Department of Education⁴ promotes the development of economics instruction through the formulation of the national curriculum. Headed by the Curriculum Development Division of the Bureau of Secondary Education, the national curriculum consists of eight key areas: Mathematics, Science, English, Filipino, Social Studies, Technology Home Economics (THE), Physical/Health Education, Arts and Music, and Values Education.⁵ The basic education curriculum, given these subjects (or key areas), follows a specified learning competencies outline in the form of an outline of objectives or desired outcomes after a year of teaching the respective courses.

The desired learning competencies

The Desired Learning Competencies are a product of the Department's effort to improve and enhance the curriculum of secondary education by providing a standard curricular guide in the different learning dimensions of basic education. The desired learning competencies are intended to be the minimum objectives that must be met.⁶

In the aspect of social science instruction (economics, in particular), the "formal" introduction of economics in the secondary curriculum has met three revisions since its institution in the 1989 SEDP. Nevertheless, these revisions only changed a little the order of concepts taught in economics, and some objectives were added or realigned to meet the needs of the changing world and their relation to the economic development path of the country.

UNESCO-PSSC report

In 2000, the Social and Human Sciences Committee of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Commission of the Philippines and the Philippine Social Science Council (PSSC) published a report on the evaluation of all textbooks in the Philippine basic education curriculum (from grade 1 to fourth year). In connection with this review, economics textbooks in high school were also reviewed and scrutinized.

⁴ It was known before as the Department of Education, Culture and Sports (DECS). The reorganization took place in 2001 through Republic Act (R.A.) 9155 (Governance of Basic Education Act) when the culture aspect was solely designated to the National Council for the Culture and the Arts (NCCA) and the sports aspect to the National Sports Commission.

⁵ Recently, social studies, together with values education, music, arts, and physical education and health education, is offered in a single course called "Makabayan." This course condenses the key areas from eight to five.

⁶ However, a World Bank Report assessing the Philippine basic education found that the minimum competencies for the Philippines are also the maximum.

Although the review was more encompassing in terms of the framework (aspects of learning, the subject matter itself, meeting the objectives of instruction, and the desired results), the review treated the basic education disciplines in the “broad strokes of content analysis.”

The following year, the PSSC published a follow-up report, which proposed a curriculum for the social sciences for basic education (elementary and high school). The proposed curriculum in economics seemed to have been intended to be used not only in developing the reference textbooks in economics but also as an instructional guide in teaching the course.

Gerardo P. Sicat: market failures in textbook industry

Dr. Gerardo P. Sicat of the University of the Philippines School of Economics (UPSE) authored *A Survey of Materials in Introductory Economic Education* in 1984 (published in the monograph series of the Philippine Institute for Development Studies [PIDS] and in the UPSE Discussion Paper Series [October 1983])⁷. The said paper contributed to the publication of his textbook, *Economics*, in 1983.

In doing his review, Sicat read existing textbooks in elementary economics, both at the collegiate and secondary levels. He recognized the same problem that the Americans saw during their establishment of a mass public education in the Philippines—that the textbooks are not contextualized for Philippine use and are primarily intended for the use of the countries where they come from. Sicat saw two channels through which the problem could be resolved: (1) “preparation of textbooks that would be written with the Philippine economy in mind,” and (2) “the ‘bridging role’ provided by the communication of economics to the lay public,” which is primarily done by the Center for Communication and Research or CRC (now known as the University of Asia and the Pacific).

Sicat also analyzed the status of the textbook industry and the process of publishing books during that time. He offered several reasons for the presence of few good-quality textbooks in the Philippines:

“There could be several reasons for the failure to produce more and better quality textbooks. Some of these are: (1) the thinness of the professional market for textbook writing; (2) the relative underdevelopment of the profession; (3) perceived lack of market; (4) the relative, low prestige of textbook writing among the professionals; (5) the underdevelopment of the textbook and publishing industry; and (6) the competition offered by foreign textbooks which are available at inexpensive prices.”

⁷ Some of the high school textbooks reviewed by Sicat are listed in the References under the heading “High School Textbooks Reviewed by Other Authors.” The list also contains those reviewed by another author, Hornedo.

Tereso S. Tullao Jr.: a more understanding of the basics

Dr. Tereso S. Tullao Jr. of the De La Salle University made a set of suggestions (as well as comments) regarding the current state of economics education in high school. His suggestions—addressed mainly to high school economics educators—were directed at the redefinition of the flow of economic principles and concepts (Tullao 1996). At a glance, this suggestion was closer to the DECS curriculum compared to the UNESCO-PSSC-suggested curriculum.

ANALYTICAL FRAMEWORK AND METHODOLOGY

The review of textbooks conducted in this paper focuses on the following areas:

1. the historical development of economics before and after the Second World War, up to the Martial Law years;
2. the bilingual policy adapted intensively after the 1989 SEDP, the 1998 PSSLC, and others thereafter;
3. the mathematical content of the books and how mathematics entered into the high school textbooks in economics;
4. the way the books have arranged topics especially those related to the different contemporary issues in Philippine economic development;
5. the comparison between the authors with economics background and those without, in terms of how credible they have been in producing reference materials; and
6. an enumeration and analysis of the different errors, inconsistencies, and other questionable content these textbooks contain.

The level of economic content of the textbooks is also analyzed, especially how they present the issues related to Philippine economics. This can show how the authors prioritize the importance of contextualizing the economic concepts and issues in relation to the Philippine setting.

REVIEW OF THE TEXTBOOKS⁸**Prewar economics**

At the very beginning of the American occupation, economics was included in the menu of basic instruction.

Miller's books did not present a pure economic content. Instead, he opted to discuss relevant "economic conditions" of the Philippines at that time or what he considered to be the most important things a Filipino high school student must learn and understand in that period.

⁸ The high school economics textbooks reviewed in this paper are listed in the References under the heading "High School Textbooks Reviewed."

Although the works of Miller have clearly shown the status of the different sectors related to the macroeconomic performance of the country under the American period (agriculture, manufacturing, and services), this became a resident topic of discussion in the whole century of high school economics instruction in the Philippines. This was aided much by statistics (i.e., tables of data) from the Bureau of Census and Statistics, which gathered data for the Census of Agriculture (held every 10 years) and the Census of Population (held every five years, or even less). All these data were presented through GIS maps⁹, line graphs, bar charts, and pie charts, and the tabular data were all placed at the end of the book as appendixes.

In treating the “economic conditions” of the country, Miller presented a logical sequence or flow of discussion for the different agricultural crops and other primary goods beginning with resource utilization: first, the history of the industry or the system; second, the “present” status of the industry; third, the identification of problems; and fourth, the proposed solutions and other suggestions for key areas of development. Aside from agriculture (which comprised almost half of the *Economic Conditions*), he also tackled other dimensions of agriculture under the following chapters: location and character of agriculture, development in agriculture, land tenure, and agricultural labor.

This bias in favor of agriculture can be explained by the advocacy of the Bureau of Education during that time. Given the specialized high school curricula of the Bureau, it constructed an agricultural curriculum that was intended primarily for rural high schools. Moreover, Miller’s *Economic Conditions* became a standard textbook in economics in that period, no matter what secondary curricula or what type of major a high school student wished to pursue. Even with the establishment of a vocational curriculum in 1918, *Economic Conditions* remained the standard textbook for the four types of curricula, namely, agriculture, commerce, home economics, and trade.

Miller also touched on other sectors of the economy such as manufacturing, fisheries, forestry, animal industry, and foreign sector¹⁰. He concluded his book with a summary chapter.

On the other hand, Miller’s *Principles of Economics Applied to the Philippines* (1932) was advanced in terms of economic content. Miller divided the book into two major units: the “principles of economics” and the “economic conditions of the Philippines.” His “principles of economics” were mostly on the foundational concepts in economics presented in prose form. Even mathematically

⁹ Miller’s book was the *only* economics textbook in high school to use GIS maps in presenting statistical data.

¹⁰ Miller referred to foreign trade as “exchange.”

inclined topics like the law of diminishing marginal returns, laws of supply and demand, utility, and cost of production were tackled in a purely textual language.

Even in the “principles of economics” part of the book, Miller did not put away the examples and applications proximate to the conditions of the Philippine economy and society at that time. Unlike the present textbooks, he did not mention many names or groups of people in his manuscripts. He only mentioned the Mercantilists in discussing balance of trade,¹¹ Gresham’s law in bimetallism of money, and the Malthusian law in relation to the law of diminishing returns.

In all of these, Miller provided proximate applications of economics to the average Filipino high school student: an appreciation of the course especially the theories of economics through simplistic language and the localized application of economics through issues and the current economic conditions of the country.

Postwar economics

The year 1949 saw the re-institutionalization of economics in secondary education. In 1956, *Economics for Philippine High Schools* (by Celeste et al.) was published and then reprinted in 1978.¹² It was the only textbook in the history of Philippine high school economics that came in two volumes of more or less 500 pages each.

This textbook focused on the basic objectives of the government in propelling economic growth and development under the relative circumstances during the time it was published. It dealt extensively with the “infant-industry argument” and the nationalization of corporations. It argued for such institutions as the driving force of economic development. Discussions focused on the importance of advocating the Bell Trade Act and the Parity Rights Law, both of which were passed during the administrations of Manuel A. Roxas and Elpidio S. Quirino.¹³

In addition to the Celeste et al. book, a book called *Philippine Economics* by Andres V. Castillo was published in 1949.

The prewar and postwar books share some commonalities: the analysis of the authors of the country’s economic conditions, the overwhelming use of

¹¹ This is in the 1913 edition of the *Economic Conditions in the Philippines*.

¹² According to Sicat (1984), the original copyright date of the book was 1946 and even a 1982 edition was published. However, between the 1982 edition and the earlier editions, only the copyright date has changed, and there were not much data updates from the data set of the 1950s (that is, the 1948 Census of Agriculture and Population).

¹³ Books published prior to the Martial Law regime would seem similar to the books of the Philippine Development and Progress course: they were the means by which the government at that time disseminated information about its activities, programs, and projects. These books also communicated to their readers the importance of government endeavors—a “moral suasion” strategy of the government in order for the public to accept its projects and programs.

statistical data from the Bureau of Census, and the dominance of these books in the market. As to the last similarity, this refers to the book of Miller and of Celeste et al. that did not have “rival” or competing textbooks in the market¹⁴; their books were the sole references of economics in their respective periods. Miller’s *Principles*, in fact, became the prototype of secondary economics textbooks of the postwar era.¹⁵

New Society economics

Under President Ferdinand E. Marcos, the same theme prevailed in high school economics textbooks. From the objectives of the New Society and the Martial Law regime, economics books became the mouthpiece of the government in its socio-economic planning and agenda, of which they spoke about the presidential decrees (PD) on land reform (PD 2 and PD 27), the Education Decree (PD 6-A), the Masagana 99 program, and others. They delved into the importance of the government support agencies (various the ministries), the current situation of the Philippines and the desired situation for the country under the New Society, and the importance of land reform and infrastructure. For instance, in the book by Enriquez and Pulido (1980), the authors called the Martial Law regime as the “golden age of infrastructure in the Philippines.”

Books changed in form, content, and emphasis in a span of less than 10 years: from the very simple (Dionisio et al. 1978) to the very complex, self-contained, and comprehensive content on the subject matter. By simple, this meant that the early books of the 1970s contained only values-oriented discussions on social institutions, religious institutions, environmental awareness, and patriotism through recognition of national symbols and the various ethnic groups in the country.¹⁶ They did not really carry in them what must really be discussed in economics classes. Reading them today, they would give readers the impression that they are simply basic social science textbooks with an emphasis on environmental awareness.

Meanwhile, the relatively complex books went deeper by unraveling basic economic concepts such as the theories of demand and supply and elasticity, national accounting, the different economic subsectors (household, business, and industry), and issues in economic development. These books have become the prototype of 21st century high school economics textbooks that were later on updated given the continuing research in the field.

¹⁴ Strictly speaking, there existed a competition between Celeste et al. and Castillo, but the former was the one widely used in Philippine high schools during the postwar period.

¹⁵ Sicat (1984) shared the same observation.

¹⁶ Some of these books would reflect even the current impression of foreigners who had never been to the Philippines: a highly agricultural country characterized by nipa huts and vast rice fields.

An examination of the economics textbooks of the pre-SEDP suggests that they served more or less as “propaganda textbooks” of the government¹⁷. Not surprisingly, this was most evident under the Martial Law Regime when civil liberties and academic freedom were severely curtailed. The discussion of concepts contained in these textbooks was limited to such things as the functions and role of money in transactions, the importance of export orientation, and the import-dependent state of the economy (Lolarga et al. 1985).

Economics and *Ekonomiks*

At the onset of the 1989 NSEC-SEDP, courses in the *Araling Panlipunan* cluster were formally prescribed to be taught in either Filipino or English, the first (and up to now the only) bilingual courses in the high school curriculum. With this new trend, secondary schools (especially private high schools) were given the choice to teach economics in either Filipino or English.¹⁸

A principal problem evident in these bilingual books is the problem of correct and understandable translation. There is no standard way of translating English economics textbooks to Filipino (or *Tagalog*)—an observation also shared by Dr. Emmanuel S. de Dios of the UPSE. This has caused numerous problems. For instance, some books chose to discuss economics with the corresponding translations in their books but without providing adequate glossaries or terms for review (some even translated English words to Filipino without putting notes of translation). This is liable to cause confusion especially if students use several textbooks as references. The translation may be correct but not understandable.¹⁹

This does not mean, however, that economics must not be taught in Filipino and must be maintained to be written in English. But there are some terms and concepts that may be more comprehensible if such words will be maintained in their English form.²⁰ The move to teach social sciences in the national language is a laudable step toward the nationalistic objectives of education. But this may be another way of masking sophistication and may not help in the appreciation of the subject matter: if economics itself is bombarded with so many technical terms, then translating them in Filipino (in the strict sense of the words used) may not help in

¹⁷ Books of Philippine Progress and Development course reflect much of the ideals and vision of the New Society and the rules of Martial Law; for example, as cited in Dionisio et al. (1978): no jaywalking, following the curfew, no bringing of deadly weapons in public places, and honest and proper payment of taxes.

¹⁸ At present, all public schools are required to teach social studies in Filipino; the option to teach it in Filipino or English is given *only* to private schools.

¹⁹ Appendix B lists some commonly translated English words and phrases used in high school economics textbooks.

²⁰ Another thing is the correct grammar in Filipino, which must be conscientiously observed by the authors.

the comprehension of the concepts and issues. With the constant changing colloquial language, it is highly suggested that textbooks must also be translated in a way similar to the current state of the day-to-day language. Or, if the objective of the translation is to correct errors in the colloquial language (in the strict sense of its grammar and syntax), then these books must provide notes to aid in the understanding of economics in Filipino (and this imposes an additional burden on the part of the student).

“Mathematical revolution”

One of the effects of the curricular revisions of the Department of Education during the SEDP was the emphasis on the fundamental laws of supply and demand in economics. Not only are they tackled in the conceptual sense, the algebraic derivations through tabular representations of notional supply and demand schedules are employed as well.

In macroeconomics, most books introduce the concept of national accounting, which is a good introduction in the discussion of the different sectors of the macroeconomy. The famous equation, $Y = C + I + G + NX$, can now be read in textbooks. Some books have even aided this fundamental aggregate equation with the 45-degree line in the aggregate demand (*AD*)-aggregate output (*Y*) space (also known in economics as the Keynesian cross). In addition, simple calculations of growth rates have been added in the text, especially in discussing population growth and economic growth (GNP and GDP).

Thesis, antithesis, and synthesis

The economic themes of high school textbooks primarily dealt with contemporary issues faced by the country during the time these books were published. Even the early books of Miller (1913, 1920, 1932), Celeste et al. (1956), and Castillo (1949) had their say on what must be done with the economic problems faced by the country during the period their books were published and used.

With the perennial issues in Philippine economic development, textbooks have offered a wide range of topics that are of utmost importance. Some of the most prominent issues include (1) land reform, way back from the Agricultural Land Reform Code of 1963 (R.A. 3844), Masagana 99, and P.D. 27, up to the implementation of R.A. 6657 or the Comprehensive Agrarian Reform Law of 1988 (CARL); (2) the General Agreement on Tariffs and Trade (GATT) with the opening of the economy toward globalization; and (3) the Expanded Value-added Tax (e-VAT).

Discussion on land reform is limited to the history of laws that were enacted for their specific purposes (R.A. 3844, P.D. 27, and R.A. 6657), but there is no direct evaluation in these books as to the effectiveness of land reform policies over the decades.

Related to labor economics is the discussion on the state of overseas Filipino workers²¹ (OFWs). Especially during the mid-1980s, economics textbooks advocated the importance of OFWs as one of the integral drivers of economic growth through the annual remittances received by the country as a whole.

Regarding the issues of environmental degradation and rapid population growth, no book offered any concrete solution or prescription on how to address these problems (whether economic in approach or not).²²

In public finance, books constantly present the different taxes and the current state of Philippine taxation, with emphasis on the implementation of the e-VAT. However, the presentation of the e-VAT often looks like an information dissemination pamphlet of the Bureau of Internal Revenue. It usually contains the general mechanics of the e-VAT and some details but without any evaluation of its effectiveness or some other comments.

Exports-over-imports is the constantly recurring theme in international trade discussions in high school economics textbooks, since the time of Miller's publications. This is why as stated earlier, books emphasized the development of export-producing sectors and the remittances of the OFWs in propelling economic growth. The only addition to the topic is the discussion of the globalization trend and the participation of the Philippines in the GATT and the World Trade Organization. This is in contrast to the earlier advocacy of postwar books supporting the "infant-industry" argument.

At some point, religion-related topics (e.g., religious concerns and doctrines especially those of the Catholic Church), in congruence with economic issues of efficiency versus equity in distribution and poverty alleviation, may be encountered in the Philippine development economics portion of the textbooks.²³ Torralba and Villegas (1975 and 1991) have even quoted the words of Pope Pius XII (the doctrine of an equitable resource distribution) and Pope Paul VI (the doctrine of equitable markets) in relation to the abovementioned issues. Zaide (1997) even used biblical verses in discussing certain economic concepts in her textbook.²⁴ Banayo and Barsig (1972) even discussed in their introductory chap-

²¹ Earlier known as overseas contract workers (OCWs).

²² At this point, the question "why should an economics textbook be prescriptive?" may arise in the analysis.

²³ This is a prominent characteristic of economics textbooks during the latter part of the 1970s to the middle part of the 1980s. However, a recent economics textbook (Zaide 1997) talks about *humanist* and *godly* economics.

²⁴ The use of Catholic doctrines on economics textbooks may be attributed to the fact that the Philippines is a predominantly Christian nation and the only Christian nation in Asia. In the Philippines, 93.2 percent are Christians, of which approximately 82.9 percent are Catholics (<http://www.nscb.gov.ph/view/people.asp>); that majority are Catholics is tied to the 333 years of occupation by the Spaniards (1565-1898).

ter that scarcity can be attributed to the “Fall of Man” (cf. book of Genesis), i.e., the “lost paradise.”

Economist vis-à-vis educator

What makes an educator and an economist²⁵ differ in their perspective of teaching economics is very much evident in the final outcome of their written textbooks.

On the one hand, the books written by educators²⁶—those who finished their master’s and doctorate degrees in education specializing in social sciences—are similar to what can be considered an “encyclopedia” of introductory economics. These books strictly follow the mandated guideline curriculum of economics for high school. Topics range from the most basic economic concepts, the history of economics as a social science (from Adam Smith to John Maynard Keynes, even way back to the time of the Mercantilists and the Physiocrats)²⁷, the history of Philippine economics (from the *balangay* to the administration of President Arroyo), the numerous issues in Philippine economic development (either in brief or in full detail), the macroeconomy and the interacting sectors, the microeconomy and the supply-demand dynamics, updates on new economic models, and so on. These books may give the impression of wanting to be a “self-contained” introductory economics textbook as much as possible without being dragging or being too voluminous (no book is greater than 400 pages, on the average). This also confirms the report of UNESCO-PSSC (Hornedo 2000).

On the other hand, professional economists—those who at least had their training in economics and the social sciences²⁸, are currently in research, or have obtained graduate and/or undergraduate degrees in economics—have provided textbooks that are intended to be as simple as possible: their goal being to provide an “economics for the layman.” These books, though shorter when compared with those written by the abovementioned group, frequently discuss topics in an outline that differs somewhat from that prescribed by the Department of Education. As some books would explicitly state, their objective in discussing economics in their books is to prevent the use of highfalutin terms and complex mathematical and statistical models, and instead, explain issues in their most understandable language. Supplementary illustrations only include

²⁵ Strictly speaking, the terms “educator” and “economist” are not mutually exclusive. The way these words are used is further explained in the context of the issues discussed in this section.

²⁶ Examples are the books authored by Antonio et al. [1999] (2001) and Cruz et al. (1999).

²⁷ The inclusion of topics related to the history of economic thought began to be prominent in the books of the late 1990s and persisted up to the present time.

²⁸ Examples of which are the books by Tullao (1990, 1998, 2004), Cororaton et al. (2005), and Belen et al. (2002). In the UNESCO-PSSC report, Hornedo commended the book written by Gonzalez et al. (1999).

data tables related to discussed topics, and simple graphs to aid some concepts that cannot be separated from mathematics.

Surprisingly, even those who are nonmajors in economics have written their respective economics textbooks for high school, either as a single author or in collaboration with other academics seeking to provide reference books that are as good as those written by educators and economists. Examples are those written by education majors who did not specialize in the social sciences or by some academicians who may have seen their fields as connected with economics such as physics (Ongsotto et al. 2002), business administration (Miranda 1992), psychology (Sebastian 2002), and history (Zaide 1997). This does not mean that those who are not professional economists (or those in the academe) do not have the right to write reference books in economics²⁹. However, it is important to note that most errors encountered in the review of economics textbooks were committed by these writers who are noneconomists—an observation that will be elaborated in the next section.

“Multidimensional” problems

For the ordinary graduating high school student, it may be too sophisticated to discuss the Hecksher-Ohlin model of international trade or the Harrod-Domar model of economic growth.

Typographical errors

Even a professional economist reading a high school economics textbook will be somewhat startled to find that PPP is defined as the “purchasing power of *peso*” (Antonio et al. [1999] 2001) or to see names like “*Tomas* (Thomas) Malthus” (Casanova et al. 1987), “William Stanley *Jeyons* (Jevons),” and “Governor General Jose Basco y *Varga* (Vargas)” (Cachola et al. [1991] 1996).

Graphs are not exempted from errors of this form. An example of which is the depicted demand and supply curves. Instead of demand curves labeled with the conventional letter “D,” they are labeled “S,” which is a convention for supply curves (Cachola et al. [1991] 1996).³⁰

²⁹ Textbooks have discussions on the relationship of economics to other fields of knowledge, particularly the social and natural sciences. This is in line with the desired learning competencies and the national curriculum of the Department of Education.

³⁰ It would seem that writers, editors, and the publishers of the books may not have proofread and edited these books well (especially for brevity, clarity, and correctness of the economic concepts and ideas). Such uncorrected errors may affect the appreciation of the subject, in the overall sense. The persistence of these errors gives the reader/reviewer the impression that the presentation is not a matter of utmost importance or priority. In addition, several books are poorly bulleted or their headings and subheadings not properly identified.

Mathematical errors

The mathematics employed in high school economics is not spared from errors. For example, we know for a fact that at the introductory level students are introduced to the computation of elasticity (using arc elasticity). The formula is given by

$$\varepsilon_d = \frac{\% \Delta Q_d}{\% \Delta P} = \frac{q_2 - q_1}{(q_2 + q_1)/2} \div \frac{p_2 - p_1}{(p_2 + p_1)/2}$$

Macarubbo (2000) presents the formula of arc elasticity equivalently as

$$\varepsilon_d = \frac{\% \Delta Q_d}{\% \Delta P} = \frac{(q_2 - q_1)/(q_2 + q_1)}{(p_2 - p_1)/(p_2 + p_1)}$$

However, Chua and Gonzales (2005) present the equivalent of a point-elasticity as

$$\varepsilon_d = \frac{\% \Delta Q_d}{\% \Delta P} = \frac{q_2 - q_1}{q_1} \div \frac{p_2 - p_1}{p_1}$$

As is well known, this does not give the same answer for price decreases as it does for price increases.

In the analysis of costs of a firm in production theory (in the books of Sicut and Samuelson), it is very fundamental to know that

$$AC = \frac{TC}{q} \quad \text{and} \quad MC = \frac{\Delta TC}{\Delta q}$$

where AC is the average cost, TC is the total cost, MC is the marginal cost, and q is the amount of goods produced. In Ongsotto et al. (2002), cost curves are defined as

$$AC = \frac{TC}{q} \quad \text{and} \quad MC = \frac{VC}{q}$$

where VC is the variable cost of the firm in producing q units. Comparing the two formulas for finding the MC, then the formula of Ongsotto et al. (2002) is erroneous since we know for a fact that

$$AVC = \frac{VC}{q}$$

where AVC is the average variable cost from producing q units. Below the cited formulas, Ongsotto et al. (2002) explained that “The marginal cost must always be less than the average cost but the more items [are] produced the close[r] the two values will be together.” If this is the case, then there are two plausible counterarguments: (1) the book is referring to average variable cost but is using the term “marginal cost,” which is not equivalent to average variable cost; and (2) if assuming that indeed the book is using marginal cost correctly to refer to the curve, then it is not true since on the right-hand portion of the point where the MC curve intersects the AC curve, $MC > AC$, and thus is not consistent with the explanation implying that it is always true that $MC < AC$, and as q increases then,

$$\lim_{q \rightarrow \infty} (MC - AC) = 0 \Leftrightarrow \lim_{q \rightarrow \infty} (AC - MC) = 0$$

The abovementioned formulas may be disputed again for the complex assumptions that may have been neglected in the presentation. For one, the formula of Chua and Gonzales (2005) on elasticity may be a point-elasticity formula rather than the conventional arc elasticity in high school textbooks. On the other hand, the marginal cost formula in Ongsotto et al. (2002) may be supported by the assumption that the production function is linear. However, there are no assumptions or clarifications stated when the formula appeared in their respective discussions. Moreover, if they are coming from their standard references (Sicat and Samuelson books), then clarifications are indeed necessary, for the cost functions presented are not linear and the standard elasticity formulas are of the arc-elasticity type.

Another example, Torralba and Villegas (1975) present an “equation” in their book (which is even enclosed in a box for emphasis):

$$\text{demand schedule} + \text{supply schedule} = \text{prices}$$

This is perhaps to imply that this is a fundamental equation in demand-supply analysis that students must remember. However, the above equation is presented without an accompanying explanation. (More exactly, the authors should have written: demand schedule \cap supply schedule = {equilibrium price and quantity}, but that would probably be incomprehensible.)

Conceptual errors

For example, there are conventionally cited functions of money such as (1) a medium of exchange, (2) a standard of value, (3) a store of value, and (4) a standard of deferred payment. However, there are books containing messages on the use of money as “a reward,” “a medium of motivation,” and “a kind of gift.”³¹

Another example: economics through the years has developed a multiparadigm of the states of the world and the corresponding economic solutions from the bipolar conflict between the Keynesians and the Classical Economists. These have been transformed to the Neoclassical, the New Classical, the Neo-Keynesian, the New Keynesian, and the Post-Keynesian paradigms, respectively. Again, who is in the authority to teach that there are only two existing paradigms (or what has been referred to in their book as dimensions) of economics: the Neoclassical (summarizing all the classical and neoclassical economists) and the Radical (Karl Marx and John Maynard Keynes) paradigms of economics (Cruz et al. 1999)?

Illogical arrangement and irrelevant topics

It would seem that the sequence of topics in an economics textbook in high school is experiencing a “vicious cycle,” that is, it has been repeated over and over but still erroneous. One example committed by most books discussing own price elasticities of demand and supply is that the own price elasticity of demand is discussed at the end portion of a chapter on demand, and that goes also with the chapter of supply. A more logical arrangement would be to discuss elasticity as a single topic as it has several economic applications and does not only rely on the computations and formula presentations (again, the problem of mathematics in economics textbooks).

NORMATIVE AND POSITIVE ALTERNATIVES

These errors manifest the poor textbook policy being implemented (the guidelines in terms of the content and the approval of textbooks) in the country. From the survey of books across the years, it is obvious that the errors have even multiplied as the books began to diversify, beginning in the period of the New Society Economics. Some possible explanations for the existence of such errors are the following:

- ◆ Newer textbooks have made liberal references to the former (or older books) without even reviewing or checking if these older books are

³¹ Even earlier high school textbooks in economics contain this teaching about money; in addition, another primary function of money given is as a medium for which banks remain solvent (Celeste et al. 1956; Cachola et al. [1991] 1996).

correct in terms of content and sequence of topics. For example, since older books discuss the different types of forests and trees in high school economics textbooks (and clearly, this is not related to economics), newer books have adopted the same content. Up to now, some economics textbooks continue to discuss these perpetually occurring irrelevant topics in economics textbooks.

- ◆ An institutional problem exists among publishers, in the form of “rent-seeking” behavior. Since publishers maximize their gains in publishing textbooks at the shortest possible time, they fall short in proofreading and reviewing the books, getting appropriate authors, and innovating and exploring the guidelines of the content of the books (which are intended to be at their minimum).
- ◆ Finally, perhaps, no economics institutions of higher learning are explicitly consulted in the formation of the learning competencies.

The model of “rent-seeking” and “captured market hypothesis”

In modeling the “rent-seeking” behavior mentioned above, we use the deductive logic that given a bad textbook policy of the government, this results in an imperfect market for textbooks, thus the end-product is the observed low quality of these books. However, since it is only the low quality of the textbooks that is observed in the economics education curriculum, then through inference, we may logically say that such low quality is due to a possible existence of imperfect competition in textbooks, borne by the bad policy of textbooks by the government. The unobserved part of logic in the induction may be called the “captured market hypothesis.”

Since the public high school is a sure market for textbooks, authors, editors, and publishers would be much willing to follow these guidelines to ensure that there will be someone who will buy their output. As such, perfect competition among high school economics textbooks ceases: the fact that public high schools act as a “captured market” for publishers, then writers/authors would merely stick to the guidelines.

To maximize gains in the business endeavor, the publisher wishes to produce textbooks in the shortest possible time, responding in haste to the demands of learning institutions and the Department of Education, in particular. To produce the manuscript, a publisher may consult a regular pool of writers, and in writing the textbook, the writers may strictly or closely adapt his or her writing to the prescribed guidelines if only to reduce the bureaucratic time of approval.

Revisiting the guidelines

Looking again at the guidelines set by the Department of Education for high

school economics, an intensive writer who wishes to explain adequately and thoroughly his or her desired content would perhaps be spending, on average, a thousand pages or even more. However, the approval guidelines require that the book must be as handy as possible.

Books that are not under the learning competencies guidelines can be compared to the books under these guidelines. On the one hand, it can be argued (again) that the “propaganda” nature of the books before the implementation of the 1989 NSEC manifests the strong normative economic aspect of high school during this period when it comes to policy analysis: it does not consider much of the empirical possibilities (i.e., theory predictions may not hold given certain conditions of the economy). This is the reason why perhaps (a) only a few books are published (as no much variations on policy analysis may be read), and (b) the theoretical analysis on the part of the student may not matter much (as solutions to economic problems and issues are already presented, prescribed, and justified).

On the other hand, books under the prescribed learning competencies were more positivist in nature (i.e., they consider recent studies/empirical findings using statistical data). Policy prescriptions in these books vary and are more liberal (relative to the prescribed topics in the curriculum) and concern the economic problems and issues in the Philippines. In addition, the books of the period present the advantages and disadvantages of the different policies that may be adapted (given the issues and problems) as well as the status of current and alternative economic orders (the basics of comparative economic systems).

Ideal “minimum competencies” of economics

After all these evaluations, one might wonder what the “ideal” curriculum of high school economics should be. In this paper, the suggestion of a “minimum criteria” for high school economics would perhaps be better than suggesting a new or improved high school economics (relative to the existing learning competencies).

Therefore, as can be gleaned from the analysis of errors committed in economics textbooks, there are four fundamental categories that a standard textbook in high school economics must satisfy:

- ◆ the correctness and conciseness of concepts and ideas in economics
- ◆ the correctness of mathematical tools used in explaining concepts and ideas in economics
- ◆ the suitability of language used by the author in writing the textbook, especially in Filipino-based textbooks, and
- ◆ the relevance of issues presented in these textbooks.

CONCLUSIONS AND RECOMMENDATIONS

It is the utmost goal of every educator, whether in the approving authority or in the level of teacher-student education, that economics in high school be as relevant and interesting as possible. However, with the current situation of bureaucracy and the implemented guidelines, this paper seeks to recommend the following to enhance the economics education in the secondary level:

- ◆ Create (or reinstate) a textbook board (for each subject or domain in secondary education) that will thoroughly evaluate all textbooks (whether for private schools or for public schools) as well as formulate a curriculum that will be used for economics in secondary education. The said board must be composed of curriculum authorities from the Department of Education, professional economists and economists in the academe, educators, and education authorities specialized in social studies.
- ◆ Keep the choice of language at the discretion of all schools whether private or public. Using English in social studies will not lessen the nationalistic objectives of the curriculum.
- ◆ Do not limit the freedom of the authors in writing their textbooks. To keep the textbooks handy, authors can divide a book into separate volumes.
- ◆ The textbook board should actively promote the use of books with more correct economic concepts, sound policy prescriptions, and adequate applications.
- ◆ Keep students well informed in economics especially its applications to the Philippine setting by not limiting their knowledge to a single textbook or a set of reference textbooks. Students should have access to other textbooks, especially those being used by the authors as their references.
- ◆ Check the adequacy of competent economics teachers. As Tullao (1996) already suggested and stressed, it is important that at the level of the teachers, economic concepts are well understood and grasped before conveying them to students.

APPENDIX A

A chronicle of the different years of historical events in Philippine basic education that relates to the teaching of economics³²

| Year | Events / Historical Highlights |
|-------------|---|
| 1902 | The general superintendent of schools recommended the preparation of textbooks possessing local color, local ideas, local descriptions, and local illustrations. Several book companies in America entered the field of adapting American texts to suit Philippine conditions. |
| 1904 | The first standard curriculum for basic education was created by the Bureau of Education, as mandated by Act 372 of the Philippine Legislation. |
| 1906 | An advisory committee (known as the First Advisory Committee on School Texts) was appointed by the Director of Education to make a careful study of all texts in Philippine schools and of the completeness of their adaptation to the course of study prescribed for the public schools at the time; the report was published in 1907. Four types of high school curricula were instituted by the Bureau of Education, all of which have their respective economics courses. This is the first time economics is instituted in high school (which is for the fourth year students). <ul style="list-style-type: none"> ◆ Academic curriculum (basic): Elements of Economics; Social and Economic conditions ◆ Normal curriculum (specialized): Elementary Economics ◆ Agricultural curriculum (rural high schools): Elements of Economics ◆ Commercial curriculum (commerce/business high schools): Political Economy |
| 1910 | A single curriculum was created; economics was maintained as a required course for fourth year high school students |
| 1911 | Hugo H. Miller was instructed by Frank R. White, director of the Bureau of Education, to create an outline of the course for economics. |
| 1913 | The first edition of Hugo Miller's <i>Economic Conditions of the Philippines</i> was published. This was also the name given to the course in economics in the secondary curriculum upon the publication of the book. The Secondary Advisory Committee on School Texts was formed by the Director of Education to further adapt textbooks; a list was published in 1916. |
| 1916 | The normal curriculum was re-introduced, which also carried the subject, <i>Economic Conditions in the Philippines</i> , as a required course for fourth year high schools. |

³² Fresnoza (1957), Manuel (1996), Ballestamon (1996), and Department of Education (1998, 2004).

- 1918 The subject was renamed to Economics, and for the first time was mandated to be taught for a period of 40 minutes at five meetings per week. A Third Advisory Committee on School Texts was formed by the Director of Education to perform similar tasks as of the two previous committees; their list of books was used from 1919 to 1921.
A vocational curriculum was established, with four different fields:
- ◆ Agriculture: Farm Economics (only in the farming major; other majors have none)
 - ◆ Commerce: Economic Conditions in the Philippines
 - ◆ Home Economics: Economics (both for the home economics major and the housekeeping and household arts major)
 - ◆ Trade: none
- 1920 An updated version of *Economic Conditions of the Philippines* was published.
- 1921 Act 2957 by the Philippine Legislation was enacted creating the Board of Textbooks, which was mandated to select and approve textbooks that will be used for all public schools in the country.
- 1927 A new curriculum was again implemented (a revision of the existing curriculum), but economics was not altered (still at 40 minutes per period for five periods in a week).
- 1928 The Board of Textbooks was declared illegal, and was dissolved.
- 1930 By Act 3772 (amending Act 2957), the Board of Textbooks was again re-instituted.
- 1932 The first experimental standard curriculum in high school was implemented in Capiz and Batangas high schools; this was known as the Type A Curriculum, which was implemented across the country in nonvocational public high schools in 1941. Economics was maintained at the same specifications.
Miller's Principles of Economics Applied to the Philippines was published, which is another update of the two previous editions of the *Economic Conditions in the Philippines*.
- 1936 The second experimental standard curriculum for high school, known as the Type B Curriculum, was implemented across the country up to 1941. Economics was maintained at the same specifications.
- 1947 Republic Act (RA) 139 further amended Act 2957 (as amended by Act 2185, 3402, and 3772), which redefined some of the functions of the Board of Textbooks.
- 1949 In June of that year, the Department of Education through the Bureau of Public Schools drafted a unit plan titled *Course in Economics for the Fourth Year Classes in Secondary Schools*, and the Board of Textbooks released a *Brief Outline of the Course in Economics for the Fourth Year Classes in Secondary Schools*.
- 1956 A general secondary curriculum was again re-installed, replacing the Home Economics curriculum, and the Type A and B Curricula. Economics was still unchanged. In addition, other special high school curricula were established:

- ◆ Agricultural curriculum: Agricultural Economics and Farm Management (40 minutes per period times one time a week)
- ◆ Agricultural-Forestry curriculum: Agricultural Economics and Farm Management (40 minutes per period times one period a week) for the first semester; Forestry Economics and Management (40 minutes per period times one period a week) for the second semester.
- ◆ Agricultural-Fishery curriculum: Agricultural Economics and Farm Management (40 minutes per period times one period a week) for the first semester; Fishery Economics and Fishery Management (40 minutes per period times one period a week) for the second semester.
- ◆ Agriculture-Teacher Education curriculum: none
- ◆ Private education curriculum: Economics (40 minutes per period times five periods a week)

- 1957 The Revised Philippine Educational Program was implemented, with Economics as an integral course in the social sciences domain (for fourth year students).
- 1973 The Revised Secondary Education Program (RSEP) was instituted to meet the objectives of the New Society program of the Martial Law regime. For the first time, economics was taught in the third year, and was subsumed into a course entitled *Philippine Development and Progress*. Courses in this new secondary program "use[s] the integrated and the conceptual approach in the presentation and development of knowledge, skills, habits, and attitudes encompassed in a particular subject area"³³ The social sciences domain was renamed social studies, under the slogan *Bagong Araling Panlipunan sa Bagong Lipunan*. Economics (as a full-blown course) was an elective, in accordance to the RSEP, and gave high school students an academic or vocational elective in high school (electives were offered from second to fourth year). In the same year, by virtue of PD 687, the Board of Textbooks was renamed Textbook Board.
- 1976 Under the Ten Year Educational Development Project by virtue of Presidential Decree 6-A, a Php383 million textbook production project was implemented with a counterpart loan worth US\$25 million from the World Bank. This was administered by the EDPITAF through the Textbook Board Secretariat. This aimed to reduce the textbook ratio from 10:1 to 2:1, with four curriculum development centers. The social studies domain was under the supervision of the Social Science Center.
- 1987 Under Executive Order 806, the Textbook Council and Instructional Materials Corporation (IMC) was created, replacing the Textbook Board. The IMC was "responsible for the adoption and selection of textbooks as well as supplementary and reference books for private elementary and secondary schools."³⁴

³³ *A Glimpse on the Educational System of the Philippines* (1983).

³⁴ Ballestamon (1996).

- 1989 The NSEC through the SEDP was implemented, requiring most subjects to be offered in 40-minute periods. The NSEC required Filipino as the medium of instruction for the teaching of social studies in all public high schools, but an option for private high schools.
- 1995 NBDB was created by virtue of Republic Act 8047, otherwise known as the Book Publishing Industry Development Act. This Act supports the phasing in of private corporations in publishing and distribution of textbooks, and the phasing out of the Instructional Materials Development Corporation (IMDC), a long-time agency attached to the DECS in textbook production and distribution.
- 1998 Revisions for the secondary education curriculum were implemented by updating the learning competencies in the 1989 NSEC/SEDP, as published in the PSSLC. Economics was again included in the fourth year curriculum.
- 2000 UNESCO and PSSC published a report on the evaluation of all textbooks in the Philippine Basic Education Curriculum, which also covered economics. It was followed with the publication of *A Draft Social Sciences Curriculum for Basic Education* in the *Social Science Information* (2001), and *Using Important Concepts in Social and Human Sciences to Improve Learning Content and Processes in Social Studies* (2002), which carried the suggestions of the UNESCO-PSSC for improving the Philippine basic education curriculum.
- 2004 PSSLC was again revised; more economic content and discussions of contemporary issues in Philippine development were integrated into the chapters or topics.

APPENDIX B

Economic terms, phrases, jargons, and other related concepts and their translation in various Filipino-versed high school economics textbooks.

| English | Filipino (Tagalog base) |
|--|--|
| absolute advantage | <i>pangkalahatan or lubos na kapakinabangan/kalamangan</i> |
| accounting | <i>pagtutuos, or less commonly pagbibilang</i> |
| advertisement | <i>anunsyo</i> |
| agriculture and fisheries | <i>pagsasaka at pangisdaan</i> |
| average (product/cost) | <i>katampatang antas</i> |
| backward-bending supply curve of labor | <i>kurbadang³⁵ paurong ng pagtustos sa paggawa</i> |
| balance of payments | <i>balanse ng mga babayarin/babayaran</i> |
| basket (of goods and services) | <i>sisidlan</i> |
| business cycle ³⁶ | <i>siklong pangkabuhayan, or siklo ng ekonomiya</i> |
| ceiling price | <i>takdang presyo/halaga</i> |
| ceteris paribus | <i>di nagbabago</i> |
| circular flow of goods and services | <i>paikot na daloy ng kalakal at paglilingkod</i> |
| cash | <i>kas</i> |
| command economy | <i>pinag-uutos na ekonomiya, sistemang planado, or administratibong comand</i> |
| common market (a type of economic union) | <i>pangkaraniwang pampamilihan</i> |
| company | <i>bahay-kalaka³⁷</i> |
| comparative advantage | <i>kainamang kapakinabangan/kalamangan, or naihahambing na kapakinabangan</i> |
| commodity | <i>paninda</i> |
| constant prices | <i>palagiang halaga</i> |
| cost | <i>gugulin, or pagtustos</i> |
| current prices | <i>kasalukuyang halaga</i> |
| demand | <i>pangangailangan (or simply demand/dimand)</i> |
| differentiable (derivatives / differentiation) | <i>nahahalawan</i> |

³⁵ Later, books would use *kurba* instead of *kurbada* since the latter denotes more of the English word "curvature."

³⁶ Some books would use the word *pag-inog* instead of the word *siklo*. See "vicious cycle of poverty."

³⁷ From the English word "investment house"; this Filipino translation may also refer to the word "corporation" in some economics textbooks.

| | |
|--|--|
| disadvantage | <i>kagahulan</i> |
| distribution (of goods and services) | <i>pamamahagi</i> |
| deficit (also shortage) | <i>kakulangan</i> |
| deficit spending | <i>kakulangan sa paggugol</i> |
| diagram | <i>dayagram</i> |
| dynamic (optimization) | <i>nababago</i> |
| efficient | <i>episyente</i> , or less commonly <i>mahinusay</i> |
| elasticity | <i>kaigkisan</i> |
| entrepreneur/investor | <i>emprisaryo</i> , <i>entrepreneyur</i> , <i>mangangalakal</i> , or <i>imbestor</i> |
| equilibrium | <i>ekilibriyo</i> , <i>ekwilibriyo</i> , or <i>katiningan</i> |
| expenditure | <i>huling gugulin</i> |
| export | <i>luwas</i> |
| factor | <i>paktor</i> , <i>sangkap</i> , or <i>salik</i> |
| final goods and services | <i>mga kalakal at paglilingkod na tapos</i> |
| figure | <i>pigura</i> |
| floor price | <i>presyong/halagang suporta</i> |
| forestry | <i>paggugubat</i> |
| full employment | <i>kabuuang empleyo</i> |
| function | <i>punsiyon</i> |
| line graph (or simply graph) | <i>talanguhit</i> |
| hierarchy of needs ³⁸ | <i>hagdan ng mga pangangailangan</i> |
| household | <i>sambahayan</i> |
| import | <i>angkat</i> |
| income | <i>kita</i> |
| index | <i>panuro</i> , or <i>indeks</i> |
| indifference curve | <i>kurba ng pantay layon</i> |
| input | <i>kabuo</i> , or <i>salik ng produksiyon</i> |
| investment (noun/ <i>pangngalan</i>) | <i>kapital</i> |
| investment (verb/ <i>pandiwa</i>) | <i>pamumuhunan</i> , or <i>pangangapital</i> |
| invisible hands ³⁹ | <i>hindi nakikitang kamay</i> |
| isoquant | <i>kurba ng pantay dami</i> |
| labor force | <i>lakas-paggawa</i> , or <i>hukbong paggawa</i> |
| laissez-faire | <i>hayaang mag-isa</i> |
| land reform | <i>repormang pansakahan</i> , <i>repormang</i> <i>agraryo</i> , or <i>reporma sa lupa</i> |
| law of diminishing marginal productivity | <i>batas na bumababang kapakinabangan</i> |
| law of diminishing marginal returns | <i>batas na lumiliit na (karagdagang) balik</i> |
| law of marginal utility | <i>batas ng karagdagang kasiyahan</i> |
| marginal cost pricing | <i>halaga ayon sa karagdagang gastos</i> |
| marginal product curve | <i>kurba ng karagdagang makagawa</i> |
| marginal product of labor | <i>karagdagang makagawa sa paggawa</i> |
| marginal propensity to consume | <i>karagdagang hilig sa pagkonsumo</i> |

³⁸ From Abraham Harold Maslow's theory of the hierarchy of needs.

³⁹ Adam Smith (1776).

| | |
|---|---|
| marginal propensity to save market supply/demand | <i>karagdagang hilig sa pag-iimpok pampamilihang suplay/demand, or suplay/demand sa pamilihan</i> |
| market economy | <i>ekonomiyang bilihan, or pampamilihang ekonomiya</i> |
| mixed economy | <i>pinagsama-samang ekonomiya, or pinaghalong (magkahalong) ekonomiya</i> |
| movement along (the demand/ supply curve) | <i>paglipat ng dami</i> |
| national accounting | <i>pangkabuhayang pagganap, or pambansang pagtutuos</i> |
| opportunity cost | <i>ipinagpalibang halaga, gastog pang-ekonomiko, or halaga ng pagkakataong isinakrisipyo</i> |
| output | <i>nabuo</i> |
| percent | <i>bahagdan, or less commonly porsyento</i> |
| perfect (competition or elasticity) | <i>ganap⁴⁰</i> |
| poverty line | <i>bilang ng mahihirap⁴¹</i> |
| production | <i>paggawa, or less commonly pagprodyus</i> |
| production possibilities frontier/curve | <i>kurba ng posibilidad sa produksyon</i> |
| public goods | <i>pampublikong kagamitan</i> |
| rate of substitution | <i>tanto ng paghahalili</i> |
| real income | <i>tunay na halaga ng kita</i> |
| savings | <i>pag-iimpok, or pagtitipid</i> |
| scarcity | <i>kakapusan</i> |
| shift (of the demand/supply curve) | <i>paglipat ng kurba</i> |
| slope | <i>dalisdis</i> |
| spending | <i>pagtustos</i> |
| stages of economic development | <i>mga yugto ng kaunlarang pangkabuhayan</i> |
| static (optimization) | <i>agaran</i> |
| stock | <i>istak</i> |
| supply | <i>suplay, or panustos⁴²</i> |
| surplus | <i>kalabisan, or less commonly sarplas</i> |
| table (data matrix) | <i>talahanayan</i> |
| tangency | <i>pagdadaplis</i> |
| terms of trade | <i>presyo sa kalakalang panlabas</i> |
| total (utility/cost) | <i>kabuuang antas</i> |

⁴⁰ Can also refer to the word "pure" (e.g. "pure monopoly").

⁴¹ This Filipino translation denotes more of the concept "poverty incidence" since the Tagalog phrase *bilang ng mahihirap*, when translated in English, means "number of poor people."

⁴² Related to the translation of spending or expenditure, since supply curves are very much related to the cost of production.

| | |
|--------------------------|--|
| underemployment | <i>hindi angkop na empleyo</i> |
| unemployment | <i>pagkadisempleyo, or kawalan ng trabaho</i> |
| utility | <i>kasiyahan, or kapakinabangan⁴³</i> |
| vicious cycle of poverty | <i>patuloy na pag-inog ng kahirapan</i> |
| wallet | <i>kalupi</i> |
| welfare economics | <i>pangkapakanang ekonomiks</i> |

⁴³ Confused with the translation of the English word "advantage"; nevertheless, some books would use the word *kalamangan* for "advantage" and *kapakinabangan* for "utility."

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⁴⁴ These are the some of the high school textbooks reviewed by G.P. Sicat and F.H. Hornedo in their respective manuscripts. The other textbooks are already included in the whole paper review. Hornedo did not provide the full bibliographical entries of some of the textbooks (i.e., those entries with author's name given as "et al.").