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The Imagined Dichotomy of Accounting versus Economic Income Concepts

Yoshitaka Fukui

Abstract

Human beings tend to see the world through the lens of dichotomous thinking. Accounting researchers are no exception and are particularly partial to the accounting versus economic income dichotomy. Although the authors of the main paper are more nuanced than usual, their arguments are centered around it nonetheless.

In this companion paper, I would like to show that masters of neoclassical economics in the twentieth century, Irving Fisher and John Hicks in particular, had quite different ideas on income from what recent accounting “reformers” advocate. Accordingly, what economic monists and fair value advocates assert is not tenable even if we take neoclassical economics as a given framework. I am confining myself to the neoclassical equilibrium world throughout because the conventional dichotomy would become all the more questionable if it were shown to be untenable even under a neoclassical framework.

However, my adopted approach is wanting in exploring a two-way interaction between accounting and economics, to which the main article has made a noteworthy contribution.

It is time to abandon a curious obsession with the dichotomy and explore a fascinating link between accounting and economics through the now half-forgotten Austrians and other Continental Europeans, whether you embrace neoclassical economics or not.

KEYWORDS: income, profit, John Hicks, Irving Fisher, accounting and economics

JEL Classification Codes: A12, B26, B53, G00

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1. Introduction

Human beings tend to see the world through the lens of dichotomous thinking. Accounting researchers are no exception and particularly partial to the accounting versus economic income dichotomy. Although the authors of the featured paper (Tsunogaya, Okada & Patel, 2011) are more nuanced than usual, their arguments are centered around it nonetheless.

In their carefully conducted research, the authors contrast Accounting Monism with Economic Monism: the former “relies on the revenue and expense view in which income is calculated by comparing realized revenues and matched expenses during the accounting period”, while the latter “is based on the asset and liability view in which income is calculated by changes in net assets at the beginning and end of the accounting period, excluding changes from transactions with shareholders.” Moreover, there exists a hybrid of the two, Economic and Accounting Dualism, which “includes both the asset and liability view and the revenue and expense view” (pp.3-4).

After examining the Japanese accounting system as an illuminating example, the authors have come to conclude that “[h]istorical evolution provides useful insights into the application of Economic and Accounting Dualism” criticizing “excessive emphasis on Economic Monism” (p.41). I have no quarrel with the authors’ judgment. At the very least it is undeniable that “[t]wo major perspectives have influenced accounting research and practices, namely the ‘Accounting perspective’ (Accounting income) and the ‘Economic perspective’ (Economic income)” (p.4).

However, does such a stark dichotomy between accounting and economic income actually exist? In this companion paper, I would like to show that masters of neoclassical economics in the twentieth century had quite different ideas on income from those of Economic Monists among accounting practitioners and researchers today. While it is a common practice to assume rather than show the existence of economic income conceptually distinct from accounting one citing seemingly relevant passages from distinguished economists sporadically, I will let them express themselves in their own words. I believe few if any are opposed to my choice of likely candidates advocating for economic income: Irving Fisher and John Hicks.

A caveat is in order at the outset: I will confine myself to the neoclassical equilibrium world throughout. I believe this very limited scope is a strength rather than weakness because the conventional dichotomy would become all the more questionable if it were shown to be untenable even under a neoclassical framework, to which Economic Monists seem to adhere.

2. Irving Fisher, the First Economic Theorist of Accounting

Different from his contemporary archrival John Maynard Keynes, Irving Fisher is no longer a household name. However, not only Joseph Schumpeter wrote that “some future historians may well consider Fisher as the greatest of America’s scientific economists up to our own day” in the middle of the last century, but also two of the most likely contenders for the title in the latter half of the century, Paul Samuelson and James Tobin, agreed with the Austrian’s judgment (Schumpeter, 1954, p.872; Samuelson, 1967, p.17; Tobin, 2005, p.19).

Fisher’s fundamental contributions to economic theory were first summarized early in the last century: *The Nature of Capital and Income* and *The Rate of Interest* in 1906 and 1907 respectively. The former, “which was much admired by Pareto, besides presenting the first economic theory of accounting, is (or should be) the basis of modern income analysis” (Schumpeter, 1954, p.872), while the latter’s “greatest contribution ... is its presentation of a definitive model of general equilibrium determination of interest rates” (Samuelson, 1967, p.30).

It is not unreasonable to claim that accounting researchers should start with consulting Fisher if they want to study the relations between income and capital or flow and stock more than superficially; they would feel all the more so should they know where he got his main conceptual framework. The following remark of his son is a pleasant surprise for accountants (Fisher, 1956, p.123):

In his unfinished manuscript *My Economic Endeavors*, he confessed that at the time of writing *Mathematical Investigations* he had not appreciated the need for drawing a fundamental distinction between capital and income, with respect to the element of time. Just as “accountants distinguish sharply between capital accounts or balance sheets relating to a point of time and income accounts relating to a period of time” he came to realize that the theory of capital and income should be built along similar lines. But when he had first joined Yale’s department of political economy in 1895, “economics and accountancy were almost total strangers to each other.”

Yes, although it is a pity that Fisher could not have Shyam Sunder as a colleague then, the greatest American economist of the last century owed his economic theory to “mere” accounting!

Fisher schematized his income and capital concepts as in Figure 1 in *The Theory of Interest* (Fisher, 1930a, p.15), which can be considered an extended revision of Fisher (1907a) added with a summary of Fisher (1906) as its first

chapter *Income and Capital*. Fisher reversed the order of the title of the 1906 book because John Canning, the author of *The Economics of Accountancy* (Canning, 1929) suggested that “the subject matter should have been presented in reverse order, inasmuch as income is the basis of the concept of capital value and is, in fact, the most fundamental concept in economic concept” (Fisher, 1930b, p.3).

Rebutting his critics, he clarified his position succinctly (Fisher, 1907b, p.432; 1908, p.24):

No sound theory of capital value can gain acceptance until we give up thinking of capital value as an independent entity existing apart from anticipated income. Capital value is merely a present expression for future income. We must always begin our capital reckoning with income, and with that item of income most remotely future... The ordinary man, however, thinks in precisely the opposite order, proceeding from capital to income and regarding an increment of capital as growing out of the capital instead of being merely part of the capital value subsequent income.

It is important to observe at the outset that, although physical income comprising goods and services is produced by physical capital, the economic value of capital is, paradoxically, produced by the economic value of that income. We may say that apples are produced by an orchard, but we cannot say that the value of the apples is produced by the value of the orchard. On the contrary, the value of the orchard is produced by the value of the apples.

From Fisher’s perspective, it is a logical conclusion to exclude capital gains from income (Fisher, 1930a, pp.25-26):

It is not uncommon for economic students to make the mistake of including capital gains as income. Capital gains, as already implied, are merely capitalization of future income. They are never present income. Therefore a true meticulous accounting, item by item, of the income, or of the services and disservices, rendered by any specified group of capital items will infallibly grind out the truth... We shall always find that only the income actually detached from, or given off for enjoyment by, that group, as in cutting coupons from a bond, will result from the summation of the accountant, who will never record as income the increase or decrease in the capital itself.

Fisher urged that we should distinguish income from earnings, and stressed the supremacy of the former over the latter (Fisher, 1906, pp.234-236):

Realized income is the value of the actual service secured from the capital; earned income is found by adding to realized income the increase of capital-value, or deducting from it the decrease. We may designate them briefly simply as income and earnings...Since, then, earned income cannot be derived without assuming realized income, and since capital-value has been shown to be the present value of the latter, and not of the former, it is clear that realized income is the more fundamental concept of the two.

In Fisher's framework, capital is a rather derivative concept playing only a secondary role. What is crucial for economic analysis is first and foremost income (Fisher, 1930a, pp.12-13):

Capital, in the sense of capital value, is simply future income discounted or, in other words, capitalized. The value of any property, or rights to wealth, is its value as a source of income and is founded by discounting that expected income... In whatever ways the ownership be distributed and symbolized in documents, the entire group of property rights are merely means to an end – income. Income is the alpha and omega of economies.

3. John Hicks, the Accountant of the Economics Profession

Like Fisher, Hicks also acknowledged his intellectual debt to accounting explicitly. When asked "Would you like to be remembered as the accountant of the economics profession?" in an interview shortly before his death (Klamer, 1989, p.180), he replied "I would not in the least mind. No, I would not."

What kind of economic theory did Mr. Accountant among economists develop? According to Samuelson (1967, p.30), an admirer of both Fisher and Hicks, "the 1907 Fisher system... is completely isomorphic to the microeconomic model of general equilibrium in J. R. Hicks, *Value and Capital*", though Hicks himself did not mention Fisher at all in this classic.

Here I will concentrate on Hicks's income concept explained in Hicks (1946) rather than his dynamic economics in general. While the book is broadly divided into statics (Parts I and II) and dynamics (Parts III and IV), "I expect that

these parts of our investigations (contained in Parts III and IV) will seem to most readers the most interesting, as they are certainly the most important” (p.5).

After elaborating his theory of interest in the preceding three chapters, he devoted the final chapter of Part II (Chapter XIV) to income before embarking on intertemporal general equilibrium in the latter parts of the book.

However, this chapter starts with such a negative remark (p.171):

[W]e have also concluded all that it is necessary to say about the foundations of dynamic economics. If we chose, we could thus proceed at once to analyse the working of the dynamic system... My decision to abstain from using these [income and other] concepts in the last five chapters was, of course, quite deliberate. In spite of their familiarity, I do not believe that they are suitable tools for any analysis which aims at logical precision... At bottom, they are not logical categories at all; they are rough approximations, used by the business man to steer himself though the bewildering changes of situation which confront him.

Nevertheless stressing that “the practical purpose of income is to serve as a guide for prudent conduct”, Hicks defined “a man’s income as the maximum value which he can consume during a week, and still expect to be as well off at the end of the week as he was at the beginning” and claimed that “this is what the central meaning must be.” Then he proposed three kinds of operational income concepts, Income No. 1, Income No. 2 and Income No.3, to approximate the central meaning of income (pp.172-176). To avoid unnecessary confusion in the present context, I assume the general price level is intertemporally constant. Because Income No. 3 exactly coincides with Income No. 2 under the assumption, Income No. 3 will not be dealt with explicitly hereafter.

Income No. 1 is “the maximum amount which can be spent during a period if there is to be an expectation of maintaining intact the capital value of prospective receipts”, while Income No. 2 is “the maximum amount the individual can spend this week, and still expect to be able to spend the same amount in each ensuing week.”

Accounting researchers often cite the same passages when discussing the relations between economic and accounting income concepts. Although it is not uncommon to equate Income No. 1 with the income concept of Hicks, such insightful scholars as Bromwich et al. (2010) attribute Income No. 1 to the asset-liability view of accounting measurement and Income No. 2 to the revenue-expense view, and conclude that Hicks endorsed neither view exclusively.

Although Income No. 1 coincides with Income No. 2 under the constant interest rate assumption, which Hicks often assumed in order to make his

argument more easily understood, it is not the case if this restrictive assumption is relaxed. Hicks (p.174) himself recognized this point and acknowledged that “Income No. 2 is then a closer approximation to the central concept than Income No. 1.” Income No. 1, the amount making intact the stock value during the period, is only used pedagogically as a first approximation because it is more intuitive and easily graspable than Income No. 2.

Hicks, who recognized that expectation plays a critical role in dynamic economics, explicitly considered the inevitable fact that expectation is never exactly realized. Therefore income ex post should be distinguished from income ex ante, the latter of which is more important than the former (p.179):

The income which is relevant to conduct must always exclude windfall gains; if they occur, they have to be thought of as rising income for future weeks (by the interest on them) rather than as entering into any effective sort of income for the current week. Theoretical confusion between income ex post and ex ante corresponds to practical confusion between income and capital.

Should we read the main text of Chapter XIV, it would seem impossible to draw the conclusion that Hicks’s income concept justifies the asset-liability view, which is too often claimed in the accounting community.

However, though not explicated in the main text, what is crucial for a proper understanding of Hicks’s dynamic economics as well as the conception of income is the point that “true income, and consequently profit, is something like (Milton) Friedman’s permanent income” (Klamer 1989, p.173). What Hicks regarded as income (series) is not the stream of expected receipts but a standard stream which has the same present value of the former (p.184).

Whichever of the three ‘approximations’ to the concept of Income we choose to use, the calculation of income consists in finding some sort of standard stream of value whose present capitalized value equals the present value of the stream of receipts which is actually in prospect.

It is unfortunate that such an important idea was not discussed in the main text but relegated to Notes to Chapter XIV. This relegation is most likely to contribute to the fact that accounting researchers pay too little attention on the point. Because economics used to be far less mathematical than today, not just this point but many other important topics were only explicated in Notes or Mathematical Appendix.

Under Hicks's framework, a rise in interest rates without any change of expected receipts increases income if the duration of an expected actual stream is shorter than that of a standard income stream, while the capital value, the present value of the expected stream, decreases. In a word, income goes up but capital down in value. Why does such a "paradox" happen? Because the present value of the actual stream decreases less than that of the ex ante standard income stream, the ex post standard income stream should be increased to equalize the present value of both actual and standard streams.

Although "we shall be well advised to eschew income and saving in economic dynamics. They are bad tools, which break in our hands" (p.177), in actual fact Hicks used income (and saving) extensively in Part IV (Chapters XV and XXIII in particular), the core of the book.

As it is clear that Hicks had personal income in mind in Chapter XIV, careful readers may wonder whether the argument about personal income can be applicable to corporate profit without reservation. Hicks replied to this perceptive question unambiguously (p.196):

We have seen that a person's income can be regarded as the level of a standard stream whose present value is the same as the present value of his prospective receipts. The same applies to a firm. Its income (or profit) is the level of a standard stream whose present value is the same as the present value of its prospective net receipts.

In some contexts, the distinction between personal income and business profit is of critical importance to economic reasoning, but not always so. If neither agency nor aggregation problem is at issue, it is not unreasonable to equate a firm with its owner-manager, as practiced by Hicks.

4. Forgotten Austrian Connection

It is important enough to mention that Friedrich Hayek (1935) proposed the same idea of income as a standard stream four years before the first edition of *Value and Capital* was published in 1939. Moreover, Hayek acknowledged that his conception of income came from Fisher (Hayek, 1935, p.245):

[T]he solution of the problem which seems to be implied in his discussion, or at least the only solution of the problem which seems to be consistent with it, appears to be very much the same as that attempted in this paper.

Actually in Chapter XIV (what a coincidence!) of Fisher (1906), we can discern the seeds of the similar argument as developed by Hayek and Hicks (Fisher, 1906, p.255):

We have learned, then, to distinguish between standard and realized income. The one is ideal, the other actual. The one is that income which, if it were received, would have the level of capital-value unchanged; the other is that income which is actually received and detached from capital, no matter whether that capital, as a result, is increased or decreased.

It is another widely shared conventional wisdom to attribute modern economic thinking to the Anglo-American tradition starting with Adam Smith. However, the masters of neoclassical economics taken up here, not only Hayek but also Fisher and Hicks are very much Austrian.

Fisher dedicated his magnum opus (Fisher, 1930a) to Eugen Böhm-Bawerk (and John Rae). All the more important is the fact that Fisher owed his theory to Böhm-Bawerk more than he realized (Schumpeter, 1954, p.847). Although we may have to discount the disciple's praise for his teacher (Schumpeter was a student of Böhm-Bawerk), even Samuelson (1967, p.28), who was not fond of non-mathematical verbal presentation à la Austrian, admitted that "Fisher can be said to have written what Böhm-Bawerk should have intended to be his proper theory."

As pointed out by Samuelson, the direct link of Hicks's dynamic economics to Fisher's is apparent, though not acknowledged by Hicks himself. This fact alone is sufficient to claim that Hicks was also influenced by Austrian economics. In actual fact, Hicks (1946, p.222) paid due recognition to Böhm-Bawerk claiming that "[h]e was quite right to conceive of the process of capitalistic production as being essentially a process in time".

Not just economic income has been influenced by Austrian economics. Although American scholars seem to be forgetful nowadays, academic accounting did not start from Hatfield (1909). As this pioneering work itself showed, in the early part of the last century, Americans kept a watchful eye on the Continental European accounting studies as Japanese today do on the American ones.

Eugen Schmalenbach was one of the most celebrated Continental accounting scholars then. I do not know how much his work influenced contemporary American scholars, but few if any Japanese researchers disagree with the opinion that he was the most influential accounting theorist in Japan up to the 1960s. Regardless of his influence, his theory of financial statements (Bilanzlehre) most fully developed in Schmalenbach (1933) dovetails with the traditional conception of accounting income.

Though not an Austrian but a Rhinelander, he explicitly recognized the importance of Austrian economics (Wiener Schule) to his accounting theory citing Böhm-Bawerk and Friedrich von Wieser (Schmalenbach, 1925, p.41). Therefore we may claim that accounting income also has an Austrian origin.

Neoclassical economics is not an Anglo-American property. In addition to Austrians, many Frenchmen, Italians and other Continental Europeans have contributed to its development before the nineteenth century. In his pioneering work on capital and income, Fisher (1896, pp.517-520) praised Anne-Robert-Jacques Turgot claiming that “his conception was practically the one here proposed”, while he was very critical of Adam Smith:

He seized upon the distinction between capital and income, but, instead of noting their different bearings to the element of time, he sought to describe the different sorts of objects constituting capital and income... The explicit statement that stock consists of two parts, only one of which was capital... turned the discussion of capital from the true road, and converted it into a vain search for some criterion of classifying wealth into capital and income.

5. Farewell to the Dichotomy

As mentioned at the outset, I have tried to deconstruct the economic versus accounting dichotomy deliberately from a purely neoclassical point of view . This limited exploration by no means implies that a neoclassical equilibrium approach is the only valid way to analyze accounting and economic phenomena. Rather I want to show that the conventional dichotomy between economic and accounting income is not a proven fact even if neoclassical economics is taken at face value as done by Economic Monists or advocates for recent accounting “reforms”.

Still, even if I may have succeeded, what I have shown here is simply that accounting, an able and obedient maid, does not serve well economics, the queen of social sciences, under the conventional dichotomy. It is certainly not enough to point out that Economic Monists should pay more attention to the primacy of income over capital in the sense that the latter is the capitalized or discounted value of the former, if accounting strives to be an equal partner of economics as a scholarly endeavor.

In this regard, my exploration is admittedly wanting, to say the least. However, once the straitjacket of the money-less and institution-less general equilibrium system is relaxed, the importance of accounting to economics really emerges and “[t]he reconciliation must come from both ends, like the digging of a major tunnel” (Shubik, 1993, p.233). It is not a coincidence that Ronald Coase, the founder of new institutional economics, takes accounting seriously.

Moreover, a two-way interaction between economics and accounting was called for in the very first issue of *Econometrica* by none other than Schumpeter (1933, p.9), who claimed “economists cannot indefinitely do without that vast reservoir of fact, nor cost accountants, bookkeepers, and so on, do without the economists’ contribution.”

Needless to say, the featured article is such an attempt. Also noteworthy is some work of Yuri Biondi that has shown not only the conception of income from an accounting point of view paves the way to the original contribution of accounting towards a deeper understanding of business and non-business organizations, but also this accounting way of thinking (including Schmalenbach’s dynamic accounting) has been heavily influenced by Carl Menger, the founder of Austrian economics, as well as Schumpeter (Biondi, 2005; 2010).

It is time to abandon a curious obsession with the dichotomy and explore a fascinating link between accounting and economics through the now half-forgotten Austrians and other Continental Europeans, whether you embrace neoclassical economics or not.

References

- Biondi, Y., “The Firm as an Entity: Management, Organization, Accounting,” *Universita degli Studi di Brescia Working Paper No. 46* (available at SSRN: <http://ssrn.com/abstract=774764>), 2005.
- Biondi, Y., “Schumpeter’s Economic Theory and the Dynamic Accounting View of the Firm: Neglected Pages from the Theory of Economic Development,” *Economy and Society* 37 (4), 2008, pp. 525-547.
- Biondi, Y., *Money without Value, Accounting without Measure: How Economic Theory Can Better Fit the Economic and Monetary System We Live in*, in *Money and Calculation: Economic and Sociological Perspectives*, edited by M. Amato, L. Doria and L. Fantacci. London, U.K.: Palgrave, 2010.
- Bromwich, M., R. Macve and S. Sunder, “Hicksian Income in the Conceptual Framework,” *Abacus* 46(3), 2010, pp.348-376.
- Canning, J. B., *The Economics of Accountancy*. New York, U.S.A.: Ronald Press, 1929.
- Coase, R. H., “Accounting and the Theory of the Firm,” *Journal of Accounting and Economics* 12 (1), 1990, pp.3-13.
- Fisher, I., “What Is Capital?,” *Economic Journal* 6 (24), 1896, pp.509-534.

- Fisher, I., "The Rôle of Capital in Economic Theory," *Economic Journal* 7 (28), 1897, pp.511-537.
- Fisher, I., *The Nature of Capital and Income*. New York, U.S.A.: Macmillan, 1906.
- Fisher, I., *The Rate of Interest: Its Nature, Determination and Relation to Economic Phenomena*. New York, U.S.A.: Macmillan, 1907a.
- Fisher, I., "Professor Fetter on Capital and Income," *Journal of Political Economy* 15 (7), 1907b, pp.421-434.
- Fisher, I., "Are Savings Income?," *American Economic Association Quarterly, Third Series* 9 (1), 1908, pp.21-47.
- Fisher, I., *The Theory of Interest: As Determined by Impatience to Spend Income and Opportunity to Invest it*. New York, U.S.A.: Macmillan, 1930a.
- Fisher, I., "The Economics of Accountancy," *American Economic Review* 20 (4), 1930b, pp.603-618.
- Fisher, I. N., *My Father Irving Fisher*. New York, U.S.A.: Comet Press, 1956.
- Fukui, Y., "The Economic Consequences of Fair-Value Accounting" (in Japanese), *Kinyu Kenkyu* 30 (3), 2011, pp.19-71.
- Hatfield, H. R., *Modern Accounting: Its Principles and Some of its Problems*. New York, U.S.A.: D. Appleton, 1909.
- Hayek, F. A., "The Maintenance of Capital," *Economica* 2 (7), 1935, pp.241-276.
- Hicks, J. R., "Maintaining Capital Intact: A Further Suggestion," *Economica* 9 (34), 1942, pp.174-179.
- Hicks, J. R., *Value and Capital, Second Edition*. Oxford, U.K.: Oxford University Press, [1939] 1946.
- Klamer, A., "An Accountant among Economists: Conversation with Sir John R. Hicks," *Journal of Economic Perspectives* 3(4), 1989, pp.167-180.
- Radner, R., "Existence of Equilibrium of Plans, Prices, and Price Expectations in a Sequence of Markets," *Econometrica* 40 (2), 1972, pp.289-303.
- Samuelson, P. A., *Irving Fisher and the Theory of Capital*, in *Ten Economic Studies in the Tradition of Irving Fisher*, edited by W. Fellner. New York, U.S.A.: John Wiley, 1967.
- Schmalenbach, E., *Grundlagen der Selbstkostenrechnung und Preispolitik*. Leipzig, Germany: Gloeckner, 1925.

- Schmalenbach, E., *Dynamische Bilanz*, Sechste Auflage. Leipzig, Germany: Gloeckner, 1933.
- Schumpeter, J. A., "The Common Sense of Econometrics," *Econometrica* 1 (1), 1933, pp.5-12.
- Schumpeter, J. A., *History of Economic Analysis*. New York, U.S.A.: Oxford University Press, 1954.
- Shubik, M., "Accounting and its Relationship to General Equilibrium Theory," *Economic Notes* 22 (2), 1993, pp.226-234.
- Tobin, J., "Irving Fisher (1867-1947)," *American Journal of Economics and Sociology* 64 (1), 2005[1987], pp.19-42.
- Tsunogaya, N., Okada, H. and Patel, C., "The Case for Economic and Accounting Dualism: Towards Reconciling the Japanese Accounting System with the Global Trend of Fair Value Accounting," *Accounting, Economics, and Law* 1 (2), 2011, Article 5.