

Accounting for capital and income



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essay: Accounting for Capital and Income essay? The concepts of capital and income are bedrock in economic theory and business-world accounting. At first glance, the relationship between the two concepts appears straightforward, but, in reality, it can become quite nuanced, particularly when we introduce the passage of time.

In policy debates” especially those involving claims of growing inequality” its important to understand the theoretical relationship between capital and income, as well as the limitations of empirical measures of these two concepts. This article provides a “ primer” on the theoretical and empirical accounting of capital and income. It then presents three illustrative examples showing how these concepts are often misunderstood in modern policy debates. Our three examples highlight the importance of understanding both the theory and the practice of capital and income measurement. Analysts have often used statistics to make statements about U.

S. savings behavior and inequality, without understanding some important causes of the observed outcomes. This article will help the reader to avoid such pitfalls and interpret the empirical evidence more knowledgeably. In particular, changes to the tax code in the 1980s drastically altered the reporting of various types of income, even though the underlying income levels probably did not change nearly as much. This fact is highly relevant in todays policy disputes, because a pioneering indicator of growing wealth inequality is based on income tax data. It is entirely possible that the apparent surge in wealth inequality is largely spurious, reflecting large

changes in the tax code but not large changes in the underlying economic reality.

Two Perspectives on Capital and Income For more on computing the discounted present value of an asset, see Interest Rates, by Burton G. Malkiel in the Concise Encyclopedia of Economics. There are two ways to think about the connection between capital and income.

On the one hand, if we have an asset that we expect to yield a certain flow of payments in periodic bursts over time, we can compute its capitalized market value by summing up the present discounted value of the entire stream of expected future payouts. In this approach, the flow of income is the more fundamental or “primitive” concept, upon which the derivative idea of capital is built. As an example of this first approach, suppose that an investor considers purchasing a parcel of downtown real estate that includes an apartment building. The investor estimates that, after accounting for routine maintenance and other administrative expenses, the rent he will collect from tenants will yield him a net income of \$100,000 per year, a situation he expects to last indefinitely. Under these assumptions, at a 10-percent discount rate, the investor would be willing to pay up to \$1 million for the property, while at a 5-percent discount rate, he would be willing to pay up to \$2 million. This type of analysis shows the sense in which the underlying “fundamentals” are the origin of the market value of the wealth; it's not as if the investor's capital investment in the property would automatically generate a return of 5 or 10 percent. On the contrary, the original market price of the property adjusts so as to make the expected

return (all things considered, including uncertainty) on the apartment building comparable to the return on other such investments.

Although the capitalization method that we have just discussed is intuitive, Friedrich Hayek, in his monumental *Pure Theory of Capital*, took a different view. He started with capital as the fundamental concept. He defined income as the flow of consumption generated by a collection of capital goods that one could enjoy in a certain period, without impairing the future productive power of the capital. ¹ This approach is useful for dealing with change. For example, suppose that the above investor, using the market discount rate of 5 percent, plunks down \$2 million to buy the real estate containing the apartment building.

As predicted, in the first year, the asset generates \$100, 000 in net income. However, during the second year, the investor learns that several of the trees on the property have become infested with an insect and that, without corrective action, some of the trees will eventually topple into the building. Because the investor wants to protect the physical integrity of the building and thereby ensure its financial ability to continue to provide a flow of rental payments from tenants, he pays \$15, 000 to have the infected trees removed and replaced. Thus, his net income for the second year is only \$85, 000. Note that, in the second year, the owner actually received the same gross payments from his tenants as in the first year; he could have withdrawn the full \$100, 000 from the operation.

Yet such shortsighted behavior would have reduced future flows of income from the capital asset. Had the owner spent the full \$100, 000, he would

have been “consuming capital.” This discussion helps us appreciate Ludwig von Mises remarks on “calculation,” which was his term for the mental procedure by which money prices guide individuals in a market economy: Monetary calculation reaches its full perfection in capital accounting. It establishes the money prices of the available means and confronts this total with the changes brought about by action and by the operation of other factors. This confrontation shows what changes occurred in the state of the acting men's affairs, and the magnitude of those changes; it makes success and failure, profit and loss ascertainable. The system of free enterprise has been dubbed capitalism in order to deprecate and to smear it. However, this term can be considered very pertinent. It refers to the most characteristic feature of the system, its main eminence, viz.

the role the notion of capital plays in its conduct. ²The Capital Gain (or Loss): Where the Two Perspectives Unite
In the previous section, we saw that there are two ways to view the relationship between capital and income: In a static framework, where we can perfectly anticipate the magnitude and timing of future income yielded by an asset, its capital value will simply be the present discounted value of those future cash flows. In a dynamic framework, we can calculate the income (or loss) associated with an operation by the change in the capital value of its components. These two perspectives come together in the concept of a capital gain (loss), which is a type of income. Consider, again, our real estate investor, who uses a 10-percent market discount rate and invests \$1 million in an apartment building. A few years after the purchase, a new opera house opens down the street, making the neighborhood much more desirable. Consequently, the investor raises his

tenants rent and ends up netting \$200, 000 annually, after maintenance expenses. If this is now the “ new normal,” at the same 10-percent market discount rate, the capitalized value of the property jumps to \$2 million.

(From that point forward, the \$200, 000 annual net rental income represents a 10-percent return on the invested \$2 million of capital.) Thus, the investor enjoys a \$1 million capital gain the moment the new reality sinks in. For a different example, consider the original scenario again” i. e.

, the investor earns \$100, 000 in annual net income from his tenants. Now suppose that the market rate of interest suddenly falls from 10 percent to 5 percent. Even though the expected flow of annual net rental income remains the same, its present discounted value immediately jumps from \$1 million to \$2 million. (From that point forward, the \$100, 000 annual net rental income represents a 5-percent return on the invested \$2 million of capital.) The \$1 million difference registers as a capital gain, accruing (in a theoretical sense) the moment interest rates fall. Its important to stress that capital gains are actually income, in an economically meaningful sense.

In either of the above scenarios, the investor could have sold his property for \$2 million cash, even though he had initially put only \$1 million into it. There was, thus, a real sense in which the “ amount of capital invested in the operation” jumped from \$1 million to \$2 million as soon as people in the market processed the new information. Economic Theory versus Empirical Measures Although in theory, the connection between capital and income can be spelled out quite elegantly, in practice, discussions of these concepts are severely limited by the availability of data. In this section, three examples

highlight the pitfalls in relying on popular statistics of capital or income to draw conclusions about the economy.;;?