This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The Formation and Stocks of Total Capital

Volume Author/Editor: John W. Kendrick

Volume Publisher: NBER

Volume ISBN: 0-87014-271-2

Volume URL: http://www.nber.org/books/kend76-1

Publication Date: 1976

Chapter Title: Total Capital Stock, by Type and Sector, in Relation to Income and Product

Chapter Author: John W. Kendrick

Chapter URL: http://www.nber.org/chapters/c3807

Chapter pages in book: (p. 94 - 110)

# 4

# Total Capital Stock, by Type and Sector, in Relation to Income and Product

The rates of growth in man-made capital stocks relative to income and product are directly related to the saving and investment functions covered in the preceding chapter. This is so statistically as well as theoretically, since our reproducible stock estimates are derived from the investment estimates by means of the perpetual inventory method explained in chapter 2.

Here we are concerned with the movements of stocks in relation to product, with particular reference to the gross versions of each. As we shall see, the ratios of gross to net capital and product have changed little over the four decades under review; also, the gross stock estimates are more relevant for an analysis of changes in productive capacity and productivity. Due to the probable upward biases of the capital deflators, which affect the various types and sectors differentially, the percentage distributions are calculated from the aggregates in current dollars as well as in constant dollars.

The sector distributions relate to the financing of investment and the resulting capital stocks. But since we are also interested in the stocks used, or "commanded," particularly in the private domestic business economy, where the capital and product estimates are independent of each other, we present capital estimates on a use basis for that sector in the following chapter. This means, in particular, that much of the human capital, which is largely financed by the personal sector, is allocated to the business sector on a basis of sector employment ratios.

## **Total National Wealth**

The current value of total gross capital stock increased from about \$1.2 trillion in 1929 to \$10.9 trillion in 1969, or at an average annual rate of 5.7 per cent. The growth rate of adjusted GNP was 0.2 percentage point higher. This was associated with a modest drop in the total capital-output ratio from 9.4 in 1929 to 8.7 in 1969—most of it occurring after 1948, when the ratio was 9.2. Conversely, the ratio of product (income) to total capital increased from 0.106 to 0.115, an average growth rate of less than 0.2 per cent a year. With some adjustments to convert product to factor income, this relation can be used to calculate rates of return on capital (see the following chapter).

When the growth in current dollar total GNP is reduced by a 2.8 per cent average annual rate of increase in the implicit price deflator for total gross national wealth (GNW), real GNW is seen to have grown at a 2.8 per cent average annual rate over the period under review. The implicit price deflator for adjusted GNP rose at a significantly slower rate than that for total GNP-2.4 per cent-so the rate of increase in real adjusted GNP was 3.4 per cent a year. Thus, total capital productivity grew at an average rate of 0.6 per cent a year, although the upward bias in the GNW price deflator suggests that the true increase was probably less than that. Nevertheless, it does appear that the growth in real stock of total capital does not explain all the increase in real GNP, as hypothesized by Schultz. In terms of real total capital coefficients, the decline was from 10.5 in 1929 to 9.4 in 1948 and 8.4 in 1969-a more marked and more regular decline than that in the current dollar ratio. (See Chart 4-1 and Table 4-1.) We defer until the next chapter a more detailed analysis of the role increasing capital productivity plays in economic growth.

On a net basis, the real capital-output ratio is lower than on a gross basis and drops slightly more. This reflects the fact that the ratio of net to gross real total wealth was 65.8 per cent in 1929 and 63.4 per cent in 1969, whereas the ratio of real net to gross national product was on a higher level, and rose slightly from 70.2 per cent to 71.1 per cent over the period. In other words, total capital productivity increased a bit more on a net basis than on a gross basis. Different methods of computing depreciation could result in somewhat different results, of course.

Although over the entire 1929–1969 period the average growth rate of real total NNW was almost as high as that of real total GNW—2.7 versus 2.8 per cent—it was 0.4 percentage point lower during 1929– 1948 and 0.2 higher during 1948–1969. This reflects the fact that there was a significant drop in the ratio of net to gross wealth between 1929

#### 96 THE FORMATION AND STOCKS OF TOTAL CAPITAL

**Billion 1958 dollars** 9,000 8,000 Ratio scale 7,000 6,000 5,000 4,000 Gross national wealth 3,000 2,000 1,000 900 800 700 600 500 400 Adjusted gross national product 300 200 Ratio Capital Coefficient, GNW/GNP 14 12 Constant dollar 10 Current dollar 8 6 4 2 0 '34 '39 **'**44 **'**49 '54 **'**59 **'**69 1929 '64

Chart 4-1. Real Gross National Wealth and Product, United States, 1929-1969

-

	Current Dollars	Price Deflators (indexes,	Constant Dollars
	(billions)	1958 = 100)	(billions)
	A. Absolute L	evels	
Adjusted GNP			
1929	127.3	50.5	252.4
1948	327.7	77.9	420.6
1969	1,247.9	130.4	957.2
Total GNW			
1929	1,202.7	45.4	2,647.6
1948	3,012.2	76.0	3,963.6
1969	10,906.6	135.2	8,069.9
Employed GNW	,		
1929	915.0	44.0	2,079.6
1948	2,373.1	75.8	3,132.5
1969	8,583.5	135.0	6,358.3
B. Avera	ge Annual Percenta	ge Rates of Change	
Adjusted GNP			
1929-69	5.9	2.4	3.4
1929-48	5.1	2.3	2.7
1948-69	6.6	2.5	4.0
Total GNW			
1929-69	5.7	2.8	2.8
1929-48	4.9	2.7	2.1
1948-69	6.3	2.8	3.4
Employed GNW			
1929-69	5.8	2.8	2.8
1929-48	5.1	2.9	2.2
1948–69	6.3	2.8	3.4
	C. Ratios, GNV	V/GNP	
Total GNW/GNP			
1929	9.4	.90	10.5
1948	9.2	.98	9.4
1969	8.7	1.04	8.4
Employed GNW/GNP			
1929	7.2	.87	8.2
1948	7.2	.97	7.4
1969	6.9	1.04	6.6

Table 4-1.	U.S.	Total	Gross	National	Wealth	and	Product

\_\_\_\_

-

~

#### 98 THE FORMATION AND STOCKS OF TOTAL CAPITAL

Year	Wealth	Product	Year	Wealth	Product
1929	.658	.702	1957	.613	.695
1937	.631	.696	1960	.616	.695
1948	.609	.708	1969	.634	.711
1953	.616	.717			

Table 4-2. Ratios of Total Net to Gross Wealth and Product, Peak Years, 1929-1969

and 1948, with a partial recovery thereafter (particularly between 1960 and 1969), as shown in the preceding table. By contrast, the ratios of net to gross real product fluctuated within a much narrower range.

When real total capital stocks *employed* are related to real national product, the ratios are lower, of course, but the trends are virtually the same as for the total capital coefficients, both gross and net. This is because the ratio of employed to total real stocks changed very little in peak years for the entire period (except 1937). It was 0.785 in 1929, 0.790 in 1948, and 0.788 in 1969 on the gross basis, resulting in the same growth rate for employed as for total real gross stocks 1929–1969. The ratio rose slightly more on a net basis. On both bases the ratios fell in recession years, of course. It will be realized that the employment adjustment was made only for the human capital, since it is assumed that nonhuman stocks are consistently "employed."<sup>1</sup> The price deflators for employed stocks rose slightly more than for total stocks, so that the growth rates of employed stocks in current prices were 0.1 percentage point higher than for total stocks in current prices, both gross and net.

If an adjustment were made for "utilization," the ratios would be lower yet. But it is not certain what the relative trend would have been, since some decline in the utilization rate of human stocks (reflecting a decline in average hours worked) may have been offset by a rising trend in utilization of nonhuman capital. The data on the latter are not firm enough to provide a basis for adjustment.

Looking at movements of real gross capital coefficients between cycle peaks (see Table 4-3), we see that the downward trend was reversed between 1929 and 1937, and again between 1953 and 1957 and 1957–1960, as incomplete recoveries failed to bring production back to optimum rates of capacity utilization. This is also true, though to

1. Robert Solow of the Directors' Reading Committee points out that the employed human capital estimates may be overstated to the extent that the average education of employed persons is greater than that of nonemployed persons of working age. It is not obvious, however, that the *movements* of employed human capital would be biased.

a lesser degree, when real human stocks are adjusted by the proportions embodied in the employed work force.

It is also evident that the capital coefficients have invariably increased between the peak and trough years of all cycles shown. This is to be expected, since real stocks generally continue to rise during contractions, while production drops or rises only very little. Significant increases in the capital coefficients occurred during the contractions of the 1930s. They were very small since World War II, reflecting the mildness of postwar contractions. The smallest rise in the real capital coefficient (little more than one per cent on a total basis) was in 1960– 1961, when real product rose modestly.

Finally, it is of some interest to look at the movements in the average real gross capital coefficients in relation to the incremental coefficients. For this purpose we have computed the average coefficients for the average stocks and product over successive business cycles (measured from peak to peak) and the incremental coefficients as ratios of changes in the two variables between successive business cycle averages. This abstracts from cyclical and erratic movements,

Real Tota Real Ad		otal GNW/ Adj. GNP	Real To Emp Real A	DTAL GNW LOYED/ ADJ. GNP
Year	Peaks	Troughs	Peaks	Troughs
1929 1933	10.5	15.2	8.2	11.2
1937 1938	11.5	12.2	8.7	9.3
1948 1949	9.4	9.7	7.5	7.6
1953 1954	8.8	9.2	7.0	7.2
1957 1958	9.1	9.5	7.2	7.4
1960 1961	9.3	9.4	7.2	7.3
1969	8.4		6.6	

 Table 4-3.
 Real Total Gross Capital Coefficients in Peak and Trough

 Years of Business Cycles, 1929–1969, U.S. National Economy

	TOTA	L CAPITAL FFICIENTS	TANGIBLI CAPITAL	e Nonhuman Coefficients	TANGIE CAPITAL (	ILE HUMAN Coefficients	INTANGH COEF	SLE CAPITAL FICIENTS
Years	Average	Incremental	Average	Incremental	Average	Incremental	Average	Incremental
1929-37	12.6		6.8		2.6		3.2	
1937-48	9.3	4.3	4.9	1.9	1.8	ø.	2.6	1.7
1948-53	9.0	8.1	4.6	3.6	1.7	1.3	2.8	3.2
1953-57	8.9	8.2	4.5	4.0	1.6	1.3	2.8	2.9
1957-60	9.2	12.4	4.6	5.8	1.7	2.1	2.9	4.5
196069	8.7	7.1	4.2	2.9	1.6	1.2	2.9	3.0
NOTE: The in real adju	"incrementa sted GNP.	l" coefficients wer	e computed as	the ratio of the ch	anges from th	e previous cycle av	verage in real (	gross capital and

,

-

1929–1969
e Averages,
Cycl
Business
Incremental,
Average and
Coefficients,
Capital
Economy:
. National
U.S.
Table 4-4.

100

which impart instability particularly to the incremental capital coefficients. Changes in the coefficients reflect changes in output and capital mix, factor substitutions, and possible changes in underlying production functions.

The total real gross capital coefficient for the national economy dropped in every subjeriod except 1957–1960, reflecting the fact that incremental coefficients were lower than average coefficients. (See Table 4-4.) The lowest incremental coefficient was in 1937–1948 relative to 1929–1937, reflecting the substantial slack in the economy during much of the earlier period that permitted a greater proportionate expansion in output than in capital and capacity. The highest incremental coefficient in 1957–1960 relative to 1953–1957 reflected the continued rapid expansion of investment and capital despite a slow rise in output and an increasing slowdown in the economy. Over the period under review, the average of the incremental coefficients was about 8.0, compared with an average coefficient of 8.7 in the final subperiod. This suggests that further declines in the average capital coefficient will be limited and gradual, unless there is a significant change in the incremental productivity of total capital in the future.

The same observations apply to the tangible components of total capital shown in the table. In the case of real intangible capital, the incremental coefficients have been quite close to the average coefficients (although more variable, of course), so that the average ratios have essentially remained on a plateau, with a slight upward tilt. If this continues, further declines in the total capital coefficients and corresponding increases in capital productivity will obviously depend on the incremental tangible capital coefficients remaining below the average coefficients.

### Real Total Gross Stocks, by Sector

Our discussion of sectoral behavior is confined to total real gross stocks, but the picture would not differ much for stocks in current dollars or on a net basis. The overall capital price deflators show much the same trends (with prices in the personal sector rising less and those in the public sector rising more than business and average prices), and grossnet capital ratios have not changed significantly by sector. Also, real gross capital coefficients are generally considered to be more significant in capacity and productivity analysis.

#### **102** THE FORMATION AND STOCKS OF TOTAL CAPITAL

Over the period 1929–1969 as a whole, growth in real capital stocks in the business and rest-of-world sectors was far slower than the 2.8 per cent average annual rate of the total. Personal sector capital grew somewhat faster, and public capital, much faster (see Table 4-5). Consequently, business capital, one-third of the national total at the beginning of the period, dropped below 22 per cent in 1969, and American capital located abroad fell from 1.2 to 0.7 per cent. At the same time, personal sector capital rose from about 53 to 56 per cent, and public capital, from about 13 to almost 22 per cent.

In terms of the two major subperiods, most of the relative decline in business capital was completed by 1948; the relative expansion in public capital had taken place before then, followed by a slight relative decline during 1948–1969, while most of the relative increase in personal sector capital took place after 1948. The relative downtrend in U.S. net capital holdings abroad was evident in both subperiods.

It is obvious from the foregoing that only public sector capital grew in relation to the 3.4 per cent average annual growth rate in real (adjusted) GNP. The capital coefficients of the other sectors declined, with total real GNP used as the denominator. It is more meaningful, however, to relate real gross stocks of total capital by sector to the real gross product originating in each. Then the changes in sectoral shares of capital can be explained statistically by changes in sector shares of real GNP and changes in the sector capital coefficients relative to that of the economy.

Looking first at the shares of GNP originating in each sector (Table 4-6), one sees that the government share rose markedly between 1929 and 1948 and then subsided, but was still well above the 1929 level in 1969. The personal sector share fell a bit in the first major subperiod, but then rose somewhat above the 1929 level by 1969. The business share fell throughout, whereas the drop in the foreign sector share was over by 1948. (See Chart 4-2.)

The capital coefficient of the public sector was almost the same in 1969 as in 1929, in contrast to the 20 per cent drop in the overall capital coefficient; this relative increase magnified the effect the expanded public share of real GNP had on the public share of capital stock. The capital coefficient of the personal sector dropped a bit more than the overall coefficient, but not enough to prevent the sector's increased GNP share from showing up in an increased share in total capital as well. On the other hand, a marked relative decline in the business sector capital coefficient accentuated the effect of the decline in the sector's share of GNP on its capital stock share, and the same was true of the foreign sector.

	Total	Business	Personal	Government	Rest of World
	A. Average	e Annual Pe	rcentage Ra	tes of Change	
Real total GNW					
1929-69	2.8	1.7	3.0	4.2	1.5
1929-48	2.1	0.2	2.2	5.2	1.4
1948-69	3.4	3.1	3.7	3.2	1.5
Real adj. GNP					
1929-69	3.4	3.2	3.6	4.2	2.7
1929-48	2.7	2.5	1.5	5.9	
1948–69	4.0	3.9	5.5	2.7	5.9
	]	B. Percentag	ge Distribut	ions	
Real total GNW					
1929	100.0	33.2	52.8 <sup>.</sup>	12.9	1.2
1948	100.0	23.2	53.1	22.7	1.0
1969	100.0	21.7	56.0	21.7	0.7
Real adj. GNP					
1929	100.0	73.9	17.6	7.9	0.6
1948	100.0	71.3	14.3	14.2	0.3
1969	100.0	69.8	19.0	10.8	0.4

 Table 4-5.
 Total Gross Capital Stocks and Product by Sector, Average Annual Rates of

 Change and Percentage Distributions, U.S. National Economy, 1929, 1948, and 1969

**Table 4-6.** Total Gross Capital Stocks and Product, by Sector, Billions of 1958 Dollars, and

 Capital Coefficients

	Total	Business	Personal	Government	Rest of World
	A. Bi	llions of 19	58 Dollars		
Total real GNW					
1929	2,647.6	878.1	1,397.5	340.7	31.3
1948	3,963.6	918.8	2,104.9	898.8	41.1
1969	8,069.6	1,747.6	4,518.3	1,748.2	55.8
Real adj. GNP originating					
1929	253.5	187.4	44.6	20.1	1.4
1948	417.8	297.7	59.7	59.2	1.2
1969	960.6	670.7	182.2	103.7	4.0
	B. To	tal Capital (	Coefficients		
Ratios, GNW/GNP					
1929	10.5	4.5	31.3	17.0	22.4
1948	9.5	3.1	35.2	15.2	34.2
1969	8.4	2.6	24.8	16.9	14.0

Chart 4-2. Real Gross National Wealth, by Sector, Per Cent Distribution: 1929, 1948, 1969



# Real Total Stocks, by Type

Here our discussion relates only to the U.S. domestic economy, since net foreign assets cannot be broken down by type. The first thing that may strike the reader in looking at the distributions by type of capital presented in Table 4-7 is the substantially faster growth in intangible capital than in tangible capital. Over the 1929–1969 period, real total gross stocks of intangible capital grew at an average rate of 3.8 per cent, compared with a 2.4 per cent rate for tangible capital. The growth rates of each accelerated during 1948–1969 from the earlier subperiod, but the point differential remained about the same. Once capital is recombined into human and nonhuman categories, the former shows a 3.1 per cent annual growth rate, as against a 2.5 per cent rate for the latter, with human capital including most of the fast-growing intangibles.

If these rates are translated into partial factor productivity ratios, given the 3.4 per cent annual growth rate of real product, it follows that

#### CAPITAL STOCK-AND INCOME AND PRODUCT

	Total		INTANGI	BLES	TANGIBLES			
Year	Gross Capital	Total	Human	Nonhuman (R&D)	Total	Human	Nonhuman	
	A. Tot	al Gross	Capital St	tocks (billions	of curre	nt dollars)	)	
1929	1186.2	275.0	272.5	2.6	911.1	290.4	620.7	
1948	2974.6	803.4	784.2	19.2	2171.2	634.1	1537.1	
1969	10837.4	4175.9	3889.9	286.0	6661.5	1650.9	5010.6	
		B. Imp	licit Price	e Deflators (19	<b>958 = 10</b>	0)		
1929	45.3	43.1	43.1	37.7	46.1	57.0	42.3	
1948	75.8	68.9	69.1	60.8	78.8	85.3	76.3	
1969	135.2	148.6	148.9	144.4	128.0	119.0	131.3	
	C. Tota	l Real Gr	oss Capit	al Stocks (bill	ions of 1	958 dollar	s)	
1929	2616.3	638.7	631.9	6.9	1977.6	509.7	1467.9	
1948	3922.6	1166.2	1134.6	31.6	2756.4	743.0	2013.4	
1969	8014.1	2810.8	2612.7	198.1	5203.3	1387.3	3816.0	
D. Average Annual Percentage Rates of Change in Total Real Gross Stocks								
1929-69	2.8	3.8	3.6	8.7	2.4	2.5	2.4	
1929-48	3 2.2	3.2	3.1	8.3	1.8	2.0	1.7	
1948-69	3.5	4.3	4.1	9.1	3.1	3.0	3.1	

 Table 4-7.
 Total Gross Capital Stocks, by Major Types, U.S. Domestic Economy

the tangible capital productivity ratio rose at an average annual rate of 1.0 per cent, while the ratio of real product to real intangible capital fell by 0.4 per cent. The ratio of real product to real human capital grew 0.3 per cent a year, compared with 0.9 per cent for nonhuman capital productivity, on average.

Looking at the composition of the intangible category, we note that nonhuman capital resulting from research and development grew much faster than the human component, but that the latter had a much larger weight. Within the human intangibles, capital in the education and training and health areas grew at a much faster rate than that resulting from mobility outlays. (See Table 4-8.)

The human and nonhuman tangibles showed about the same rates of growth. Within the latter, equipment had the highest growth rate, followed, in descending order, by inventory stocks, structures, and land. The land factor reflected changes in the pattern of land use and the inclusion of the new states of Alaska and Hawaii in 1959 (which had little influence on other types of capital, however).

In line with the differential growth rates, real intangible stocks

<b>Table 4-8.</b> Economy	Total C	iross Capital St	ocks: Det	ail of Huma	n Intangil	oles and t	Vonhuman Ta	ingibles, U.S. I	Domestic
		HUMAN INT.	ANGIBLE	S			NONHUMAN	<b>FANGIBLES</b>	
Year	Total	Education & Training	Health	Mobility	Total	Land	Struc- tures	Equip- ment	Inven- tories
		A. Tot	al Gross	Capital Sto	cks (billi	ons of cu	urrent dollars	(	
1929	272.5	225.8	31.2	15.4	620.7	111.5	304.0	143.8	61.5
1948	784.2	674.0	83.1	27.1	1537.1	197.9	779.2	419.4	140.6
1969	3889.9	3331.4	460.0	98.5	5010.6	686.8	2520.6	1447.7	355.4
			B. Imp	licit Price ]	Deflators	(1958 =	100)		
1929	43.1	42.7	47.2	42.3	42.3	41.7	37.8	50.6	54.5
1948	69.1	69.1	69.7	68.4	75.6	70.1	77.2	73.6	92.6
1969	148.9	148.6	153.1	138.3	131.3	169.1	141.9	110.6	109.7
		C. Total	Real Gr	oss Capital	Stocks (	billions o	of 1958 dolla	rs)	
1929	631.9	529.3	66.1	36.4	1467.9	267.2	803.6	284.2	112.8
1948	1134.6	975.7	119.3	39.6	2013.4	282.4	1009.3	570.0	151.8
1969	2612.7	2241.2	300.4	71.2	3816.0	406.2	1776.5	1309.4	323.9
	D.	. Average Ann	ual Perc	entage Rate	es of Cha	nge in R	eal Total Gr	oss Stocks	
1929–69	3.6	3.7	3.9	1.7	2.4	1.1	2.0	3.9	2.7
1929-48	3.1	3.3	3.2	0.4	1.7	0.3	1.2	3.7	· 1.6
1948-69	4.1	4.0	4.5	2.8	3.1	1.7	2.7	4.0	3.7

106	
-----	--

Chart 4-3. Real Gross Domestic Wealth by Major Type, Per Cent Distribution: 1929, 1948, 1969



grew from under one-fourth of the total in 1929 to more than one-third in 1969. (See Chart 4-3.) In current dollars the growth is relatively greater, due to a faster increase in the price deflator for intangibles than in that for tangibles. Also, because of a faster rising price index, nonhuman tangibles show a smaller drop in current than in constant prices, while the converse is true of tangible human equipment. (See Table 4-9.)

Within the human intangible category (Table 4-10), education is by far the largest grouping, accounting for more than 85 per cent in 1969, compared with under 12 per cent for health and about 2.5 per cent for mobility. Both of the first two percentages were a bit higher than in 1929, whereas the mobility proportion dropped.

Within the nonhuman tangible category, the land proportion dropped drastically in both current and constant dollar distributions, particularly the latter. The stock of structures held at near 50 per cent of the current dollar total, but fell relatively in the constant dollar distribution. Equipment rose in both the current and constant dollar distributions, particularly the former. Inventory stocks rose as a percentage of

	TotalINTANGIBLES				TANGIBLES			
	Gross			Nonhuman				
Year	Capital	Total	Human	(R&D)	Total	Human	Nonhuman	
	A. Perce	ntage C	ompositio	n of Real Tot	al Gros	s Stocks		
1929	100.0	24.4	24.2	0.3	75.6	19.5	56.1	
1948	100.0	29.7	28.9	0.8	70.3	18.9	51.3	
1969	100.0	35.1	32.6	2.5	64.9	17.3	47.6	
<b>B. P</b>	ercentage	Compo	sition of C	Current Dolla	r Total	Gross Sta	ocks	
1929	100.0	23.2	23.0	0.2	76.8	24.5	52.3	
1948	100.0	27.0	26.4	0.6	73.0	21.3	51.7	
1969	100.0	38.5	35.9	2.6	61.5	15.2	46.2	
C. Percen	tage Com	position	n of Curren	nt Dollar Tot	al Gros	s Stocks, l	by Sector	
1929								
Business	100.0	7.2	6.8	0.4	92.8	0.0	92.8	
Personal	100.0	26.9	26.9	0.0	73.1	42.2	30.9	
Government	100.0	47.3	46.6	0.7	52.7	0.0	52.7	
1969								
Business	100.0	16.6	12.7	3.9	83.4	0.0	83.4	
Personal	100.0	40.6	40.4	0.2	59.4	27.8	31.6	
Government	100.0	53.8	46.7	7.2	46.2	0.0	46.2	
D. Percen	itage Com	positio	n of Curre	nt Dollar Tot	al Gros	s Employ	ed Stocks	
1929	100.0	17.7	17.4	0.3	82.3	13.2	69.1	
1948	100.0	21.6	20.7	0.8	78.4	12.6	65.8	
1969	100.0	32.7	29.3	3.4	67.3	8.5	58.8	

**Table 4-9.** Total Gross Capital Stocks, by Major Types, U.S. Domestic Economy,

 Percentage Distributions

the constant dollar aggregate, but fell somewhat in the current dollar distribution.

In the percentage distributions of gross capital *stocks employed*, the human components are smaller, since it is for this component alone that total capital is adjusted downward to that actually available for productive activity. (Since nonhuman capital does not have an alternative use, it is considered available for productive employment all the time.)

Sections C of Tables 4-9 and 4-10 show the per cent distributions by type and by sector (of finance) for the years 1929 and 1969. It is striking that the intangible capital proportion was much higher in government than in the other sectors, and that it was lowest in business.

Percentage Dis	stribution	5							
		HUMAN INT	ANCIBLES				NONHUMAN	TANCIBLES	
Year	Total	Education & Training	Health	Mobility	Total	Land	Struc- tures	Equip- ment	Inven- tories
		A. Perce	intage Co	mposition	of Real	Total Gr	oss Stocks		
1929	100.0	83.8	10.5	5.8	100.0	18.2	54.7	19.4	7.7
1948	100.0	86.0	10.5	3.5	100.0	14.0	50.1	28.3	7.5
1969	100.0	85.8	11.5	2.7	100.0	10.6	46.6	34.3	8.5
		B. Percentage	Compos	ition of Cu	rrent D	ollar Tot	al Gross Sto	ocks	
1929	100.0	82.9	11.4	5.7	100.0	18.0	49.0	23.2	9.9
1948	100.0	85.9	10.6	3.5	100.0	12.9	50.7	27.3	9.1
1969	100.0	85.6	11.8	2.5	100.0	13.7	50.3	28.9	7.1
	С. Р	ercentage Con	position	of Current	Dollar '	Total Gr	oss Stocks, ł	oy Sector	
1929									
Business	100.0	93.0	2.5	4.5	100.0	23.7	47.5	17.0	11.8
Personal	100.0	79.0	13.3	7.6	100.0	6.7	46.2	36.9	10.1
Government	100.0	90.2	9.5	0.3	100.0	24.0	64.4	11.5	0.1
1969									
Business	100.0	94.4	3.5	2.Ì	100.0	20.1	42.6	26.8	10.4
Personal	100.0	82.4	13.9	3.6	100.0	9.3	49.7	34.7	6.2
Government	100.0	89.9	9.7	0.4	100.0	10.1	64.0	23.0	2.9

Table 4-10. Total Gross Capital Stocks: Detail of Human Intangibles and Nonhuman Tangibles, U.S. Domestic Economy,

109

But government intangible capital had the lowest relative growth rate over the period (despite a relatively rapid growth of government R&D capital), while business had the highest rate.

Conversely, the tangibles comprised the greatest proportion of business and the smallest of government capital. Although the personal sector was in the middle with respect to total tangibles, it was the only sector financing human tangibles, and its proportion of tangible nonhuman capital alone, at around 31 per cent, was the lowest of the sectors.

A further look at the nonhuman tangible breakdowns shows that only the personal sector increased its share of land and structures. As to equipment, both business and government increased their proportions, while the personal sector's percentage fell slightly. Inventory proportions declined in both the business and personal sectors, but rose in governments. Within the human intangibles category, sector proportions of education and training and health rose on the whole at the expense of the mobility percentage, except for the government sector, which shows a slight drop in the education-training proportion and a relative rise in that of mobility.