
Capital Accumulation

Fiction and Reality

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CHART BOOK

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Recent Publications and Interviews

1. Bichler, Shimshon, and Jonathan Nitzan. 2015. Still About Oil? *Real-World Economics Review* (70, February): 49-79. <http://bnarchives.yorku.ca/432/>
2. Nitzan, Jonathan, and Shimshon Bichler. 2014. Can Capitalists Afford Recovery? Three Views on Economic Policy in Times of Crisis. *Review of Capital as Power* 1 (1, October): 110-155. <http://bnarchives.yorku.ca/414/>
3. Bichler, Shimshon, and Jonathan Nitzan. 2014. Le capital comme pouvoir. Vers une nouvelle cosmologie du capitalisme. Traduit de l'anglais par Corentin Debailleul et Vincent Guillin. *Supplement de la Revue du MAUUS*, June 12. <http://bnarchives.yorku.ca/409/>
4. Bichler, Shimshon, and Jonathan Nitzan. 2014. The Enlightened Capitalist. *Philosophers for Change*, May 6. <http://bnarchives.yorku.ca/399/>
5. Nitzan, Jonathan, and Shimshon Bichler. 2014. The Capitalist Algorithm. Reflections on Robert Harris' *The Fear Index*. *Real-World Economics Review* (67, May): 137-142. <http://bnarchives.yorku.ca/401/>
6. Bichler, Shimshon, and Jonathan Nitzan. 2014. No Way Out: Crime, Punishment and the Limits to Power. *Crime, Law and Social Change*. 61 (3, April): 251-271 (published in Online First in January 3, 2014). <http://bnarchives.yorku.ca/391/>
7. Bichler, Shimshon, Jonathan Nitzan, and Piotr Dutkiewicz. 2013. Capitalism as a Mode of Power: Piotr Dutkiewicz in Conversation with Shimshon Bichler and Jonathan Nitzan. In *22 Ideas to Fix the World: Conversations with the World's Foremost Thinkers*, edited by P. Dutkiewicz and R. Sakwa. New York: New York University Press and the Social Science and Research Council, pp. 326-354. <http://bnarchives.yorku.ca/372/>
8. Nitzan, Jonathan & Shimshon Bichler. 2012. *Le capital come pouvoir: une étude de l'ordre et du créordre*. Traduit de l'anglais par Vincent Guillin. Paris: Max Milo. <http://bnarchives.yorku.ca/337/>
9. Bichler, Shimshon, and Jonathan Nitzan. 2012. Capital as Power: Toward a New Cosmology of Capitalism. *Real-World Economics Review* (61, September): 65-84. <http://bnarchives.yorku.ca/343/>
10. Bichler, Shimshon, Jonathan Nitzan, and Tim Di Muzio. 2012. The 1%, Exploitation and Wealth: Tim Di Muzio interviews Shimshon Bichler and Jonathan Nitzan. *Review of Capital as Power* 1 (1): 1-22. <http://bnarchives.yorku.ca/344/>
11. Bichler, Shimshon, and Jonathan Nitzan. 2012. The Asymptotes of Power. *Real-World Economic Review* (60, June): 18-53. <http://bnarchives.yorku.ca/336/>
12. Soong, C.S. 2012. A Two-Part Radio Interview with Jonathan Nitzan on 'Capital as Power'. In *Against The Grain*. Berkeley: KPFA 94.1 FM, June 11 (52 minutes) and June 14. <http://bnarchives.yorku.ca/335/>
13. Bichler, Shimshon, and Jonathan Nitzan. 2012. Imperialism and Financialism: A Story of a Nexus. *Journal of Critical Globalization Studies* (5): 42-78. <http://bnarchives.yorku.ca/329/>
14. Nitzan, Jonathan, and Shimshon Bichler. 2009. *Capital As Power. A Study of Order and Creorder*. RIPE Series in Global Political Economy. New York and London: Routledge. <http://bnarchives.yorku.ca/259/>

Preface

There are many explanations for the recent global crisis, but most seem to agree that the origins of this crisis are largely *financial*: the crisis started in and was amplified by the financial sector.

Of course, when economists speak about a financial crisis, they don't speak of finance in isolation; they speak of finance in relation to the so-called real capital stock. The current crisis, they argue, happened not because of finance as such, but due to a 'mismatch' between financial and real capital. According to this view, the world of finance deviated from and distorted the real world of accumulation; and since there is no such thing as a free lunch, the ensuing financial crash and Great Recession were the price we all had to pay for failing to prevent the distortion.

This *mismatch thesis* – the notion of a reality distorted by finance – is broadly accepted. It is the basic premise of liberals, it is endorsed by Marxists, and it guides policy makers.

There is only one problem. The mismatch itself does not – and *cannot* – exist, and for the simplest of reasons: the very distinction between 'real' and 'financial' capital is entirely fictitious. . . .

Presentation Signposts

The Mismatch Thesis

- Duality: 'financial capital' versus 'real capital'
- Crisis: when finance distorts reality
- Fiction: when economists invent impossible equalities

The Duality

- Hume's classical dichotomy
- The real world: material production and consumption
- The financial mirror: symbolic images and echoes
- Capital goods versus capitalization

Marx's View

- Why is finance a fiction: no 'principal'; putative profit; the varying rate of interest
- The dilemma: finance 'distorts' values
- The Ghost in the Machine: crisis brings finance down to earth
- Why is there no Marxist theory of finance?

Irving Fisher's House of Mirrors

- From capital wealth to income services
- From income services to income value
- From income value to capital value
- From capital value to capital wealth
- The two sides of the balance sheet

The Quantity of Wealth

- The real benchmark: what is finance 'equal' to?
- Can material qualities be quantified: the Cambridge Controversy
- Fundamental quantities of physics: mass, distance, time, electrical charge and heat
- Fundamental quantities of economics: utils and snals (socially necessary abstract labour)
- Revealed preferences: let prices tell all
- The curse of equilibrium: Can we know it when we see it? Does it ever happen?
- The big cheat: reality is in the mirror, but the mirror is shattered
- With nothing to match, what is there to mismatch?

Microsoft vs. General Motors

- Who is the giant, who is the dwarf?
- Productive capacity and employment
- Equity and total capitalization
- A 'technological fix'?

Tobin's Q: Adding Intangibles

- Market value of equities and bonds versus current cost of fixed assets
- Why is Tobin's Q greater than 1?
- Dark matter and the intangible revolution
- Going in reverse: let the market tell all

Boom and Bust: Adding Irrationality

- Why does Tobin's Q fluctuate?
- When 'agents' misbehave: distortions
- The curse of excess: too optimistic, too pessimistic
- Bubbles and fake wealth, crashes and underpriced assets
- Order in the chaos: pro-cyclical irrationality?

The Gods Must Be Crazy

- A world turned on its head: capitalists accumulate when capital 'decumulates'?
- Force is nothing but its effect: toward a power theory of capital

Figure 1
The Classical Dichotomy: Real and the Financial

Economist.com

FINANCE & ECONOMICS

Buttonwood

The nature of wealth

Oct 8th 2009

From The Economist print edition

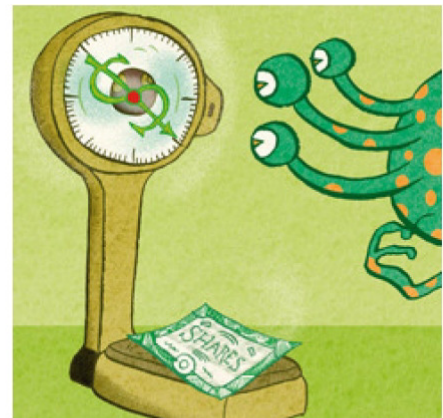
The world confused financial assets with real ones

AT THE heart of the current crisis is a fundamental confusion about the nature of wealth. Think about it from the perspective of a Martian. Were an extraterrestrial to be shown a room full of gold ingots, a stack of twenty-dollar bills or a row of numbers on a computer screen, he might be puzzled as to their function. Our reverence for these objects might seem as bizarre to him as the behaviour of the male bowerbird (which decorates its nest with shiny objects to attract a mate) seems to us.

Wealth consists of the goods and products we wish to consume or of things (factories, machinery, an educated workforce) that give us the ability to produce more such goods and services. Financial assets arise from the desire to postpone consumption so that money can be saved, either for precautionary reasons or to invest so that more goods and services can be consumed in the future.

Looked at in that way, financial assets are not "wealth" but a claim on real wealth. If those claims multiply or rise in price, that does not mean aggregate wealth has increased. If a pizza is cut into eight instead of four slices, there is no more food to eat. If everyone sitting at the table is given shares in the pizza and the share price rises from \$1 to \$2, the meal will still be no bigger.

Illustration by S. Kambayashi



Divergence: Fictitious Capital Unleashed

‘All connection with the actual process of self expansion of capital is thus lost to the last vestige, and the conception of capital as something which expands itself automatically is thereby strengthened. . . . The accumulation of the wealth of this class [the large moneyed capitalists] may proceed in a direction very different from actual accumulation. . . . Moreover, everything appears turned upside down here, since no real prices and their real basis appear in this paper world, but only bullion, metal coin, notes, bills of exchange, securities. Particularly in the centers, in which the whole money business of the country is crowded together, like London, this reversion becomes apparent; *the entire process becomes unintelligible*’.

(Marx, Karl. 1894. *Capital. A Critique of Political Economy. Vol. 3: The Process of Capitalist Production as a Whole*. Edited by Friedrich Engels. New York: International Publisher, pp. 549, 561, 576, emphasis added)

Convergence: Fictitious Capital Tamed

‘In order for the price system to work, financial forces should cause fictitious capitals to move in directions that parallel changes in reproduction values. . . . By losing any relationship to the underlying system of values, strains eventually build up in the sphere of production until a crisis is required to bring the system back into a balance, whereby prices reflect the real cost of production. The fiction of fictitious value cannot be maintained indefinitely. At some unknown time in the future, prices will have to return to a rough conformity with values. . . ’

(Perelman, Michael. 1990. The Phenomenology of Constant Capital and Fictitious Capital. *Review of Radical Political Economics*, Vol. 22, Nos. 2-3, p. 83)

Table 1
Irving Fisher's House of Mirrors

	PRESENT CAPITAL		FUTURE INCOME
QUANTITIES (REAL)	<i>capital wealth</i>	① →	<i>income services</i>
			↓ ②
VALUES (FINANCIAL)	<i>capital value</i>	← ③	<i>income value</i>

'The statement that 'capital produces income' is true only in the physical sense; it is not true in the value sense. That is to say, *capital-value does not produce income-value*. On the contrary, *income-value produces capital-value*. . . . [W]hen capital and income are measured in *value*, their causal connection is the reverse of that which holds true when they are measured in *quantity*. The orchard produces the apples; but the value of the apples produces the value of the orchard. . . . We see, then, that present *capital-wealth* produces future *income-services*, but future *income-value* produces present *capital-value*'.

(Irving Fisher, *The Rate of Interest*, 1907, NY: The Macmillan Company, pp. 13-14, original emphases)

Table 2
The Many ‘Quantities’ of *Energy User-Producer Inc.*

Year	Number		Price (\$ mn)		‘Quantity’ of Capital (utils) by year of equilibrium			Normalized ‘Quantity’ of Capital (utils) by year of equilibrium		
	(1) Auto Factories	(2) Oil Rigs	(3) Auto Factories	(4) Oil Rigs	(5) Eq. in 1970	(6) Eq. in 1974	(7) Eq. in 1979	(8) Eq. in 1970	(9) Eq. in 1974	(10) Eq. in 1979
1970	33	20	200	100	8,600	15,900	29,200	100.0	100.0	100.0
1971	32	20	220	120	8,400	15,600	28,800	97.7	98.1	98.6
1972	31	20	218	220	8,200	15,300	28,400	95.3	96.2	97.3
1973	28	20	270	280	7,600	14,400	27,200	88.4	90.6	93.2
1974	28	21	300	300	7,700	14,700	28,000	89.5	92.5	95.9
1975	28	21	345	400	7,700	14,700	28,000	89.5	92.5	95.9
1976	28	21	350	450	7,700	14,700	28,000	89.5	92.5	95.9
1977	28	24	410	600	8,000	15,600	30,400	93.0	98.1	104.1
1978	28	30	390	700	8,600	17,400	35,200	100.0	109.4	120.5
1979	28	31	400	800	8,700	17,700	36,000	101.2	111.3	123.3
1980	28	32	415	810	8,800	18,000	36,800	102.3	113.2	126.0
1981	28	33	432	820	8,900	18,300	37,600	103.5	115.1	128.8
1982	28	33	445	850	8,900	18,300	37,600	103.5	115.1	128.8
1983	28	33	450	900	8,900	18,300	37,600	103.5	115.1	128.8
1984	28	30	432	850	8,600	17,400	35,200	100.0	109.4	120.5
1985	27	30	450	870	8,400	17,100	34,800	97.7	107.5	119.2
1986	27	29	460	800	8,300	16,800	34,000	96.5	105.7	116.4
1987	27	29	473	790	8,300	16,800	34,000	96.5	105.7	116.4
1988	27	30	470	690	8,400	17,100	34,800	97.7	107.5	119.2
1989	27	31	460	650	8,500	17,400	35,600	98.8	109.4	121.9
1990	26	32	500	680	8,400	17,400	36,000	97.7	109.4	123.3
1991	26	33	502	700	8,500	17,700	36,800	98.8	111.3	126.0
1992	25	33	510	720	8,300	17,400	36,400	96.5	109.4	124.7
1993	25	33	500	705	8,300	17,400	36,400	96.5	109.4	124.7
1994	25	36	480	730	8,600	18,300	38,800	100.0	115.1	132.9
1995	24	36	511	780	8,400	18,000	38,400	97.7	113.2	131.5
1996	23	36	520	785	8,200	17,700	38,000	95.3	111.3	130.1
1997	22	37	510	800	8,100	17,700	38,400	94.2	111.3	131.5
1998	17	38	530	750	7,200	16,500	37,200	83.7	103.8	127.4
1999	17	40	535	760	7,400	17,100	38,800	86.0	107.5	132.9
2000	17	41	540	755	7,500	17,400	39,600	87.2	109.4	135.6
2001	17	40	560	730	7,400	17,100	38,800	86.0	107.5	132.9
2002	17	42	550	780	7,600	17,700	40,400	88.4	111.3	138.4
2003	18	43	530	800	7,900	18,300	41,600	91.9	115.1	142.5
2004	18	44	580	850	8,000	18,600	42,400	93.0	117.0	145.2
2005	19	45	550	900	8,300	19,200	43,600	96.5	120.8	149.3
2006	17	46	590	950	8,000	18,900	43,600	93.0	118.9	149.3
2007	15	47	600	1000	7,700	18,600	43,600	89.5	117.0	149.3
2008	14	51	610	800	7,900	19,500	46,400	91.9	122.6	158.9
2009	13	52	590	700	7,800	19,500	46,800	90.7	122.6	160.3
2010	13	51	580	750	7,700	19,200	46,000	89.5	120.7	157.5
2011	14	54	530	700	8,200	20,400	48,800	95.3	128.3	167.1
2012	12	52	510	800	7,600	19,200	46,400	88.4	120.7	158.9
2013	11	55	520	820	7,700	19,800	48,400	89.5	124.5	165.7
2014	12	55	500	800	7,900	20,100	48,800	91.9	126.4	167.1
2015	10	57	515	700	7,700	20,100	49,600	89.5	126.4	169.9

NOTE: See next page →

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The numbers of auto factories (Column 1) and oil rigs (Column 2) are hypothetical.

Column 5 = value of Column 3 in 1970 * Column 1 + value of Column 4 in 1970 * Column 2

Column 6 = value of Column 3 in 1974 * Column 1 + value of Column 4 in 1974 * Column 2

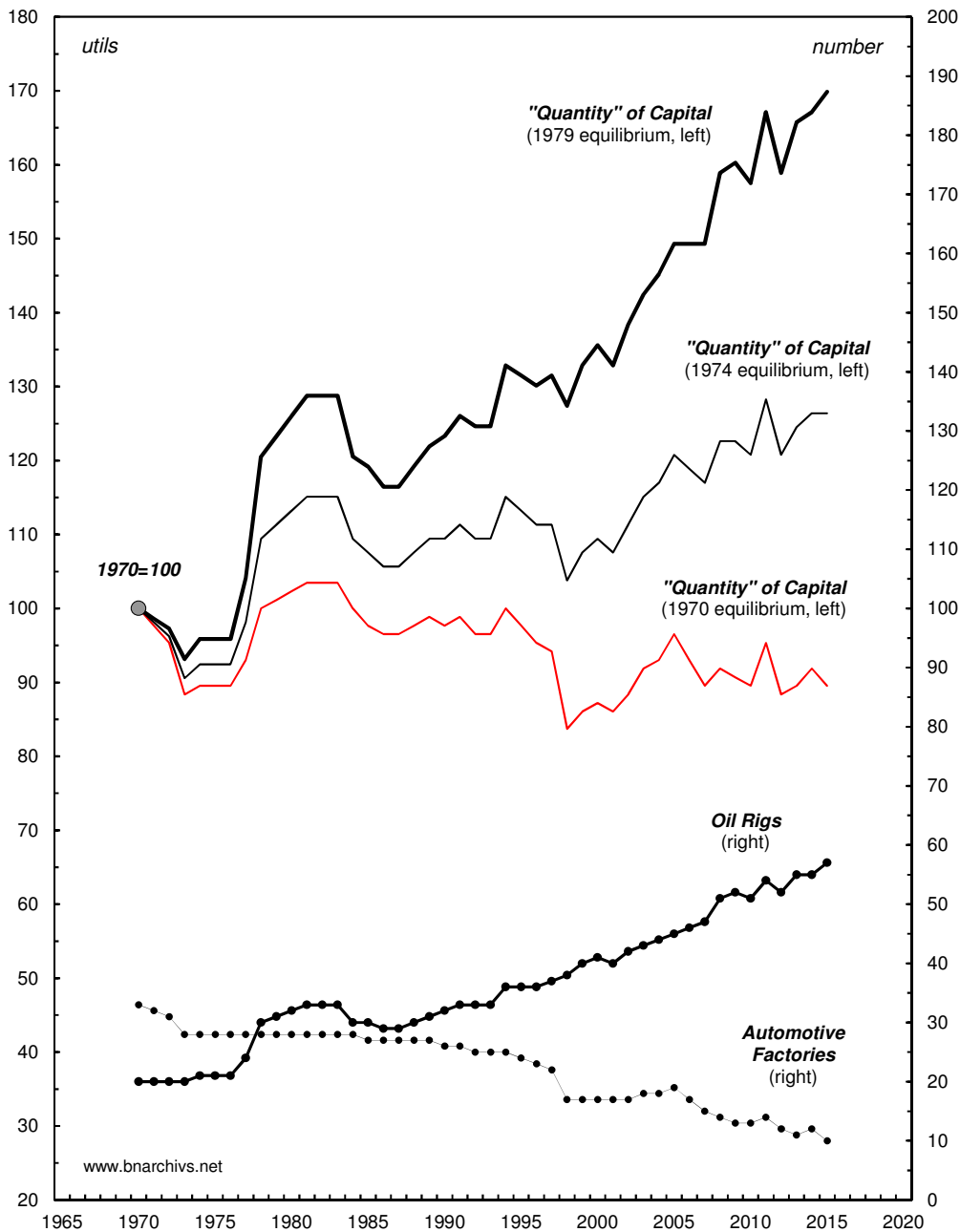
Column 7 = value of Column 3 in 1979 * Column 1 + value of Column 4 in 1979 * Column 2

Column 8 = Column 5 / value of Column 5 in 1970 * 100

Column 9 = Column 6 / value of Column 6 in 1970 * 100

Column 10 = Column 7 / value of Column 7 in 1970 * 100

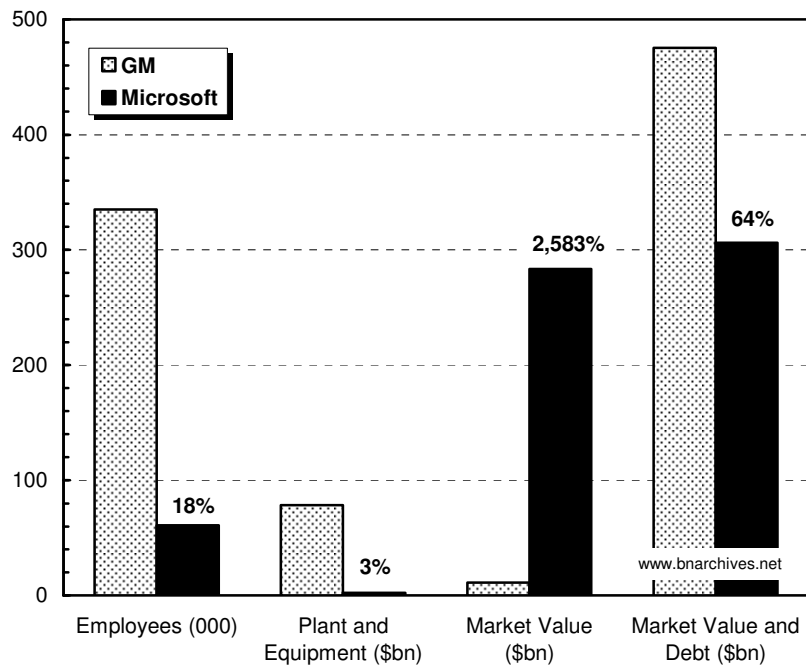
Figure 2
The Many 'Quantities' of Energy User-Producer Inc.



NOTE: The number of auto factories and oil rigs is hypothetical. The annual 'quantity' of capital (in utils) is computed first by multiplying the number of auto factories and oil rigs by their respective equilibrium price; and second by adding the two products. The 'quantity' of capital with a 1970 equilibrium assumes that the 'util-generating capacities' of an auto factory and an oil rig have a ratio of 2:1 (based on respective prices of \$200 mn and \$100 mn); the 'quantity' of capital with a 1974 equilibrium assumes that the ratio is 1:1 (based on respective prices of \$300 mn and \$300 mn); and the 'quantity' of capital with a 1979 equilibrium assumes that the ratio is 1:2 (based on respective prices of \$400 mn and \$800 mn).

SOURCE: Table 2.

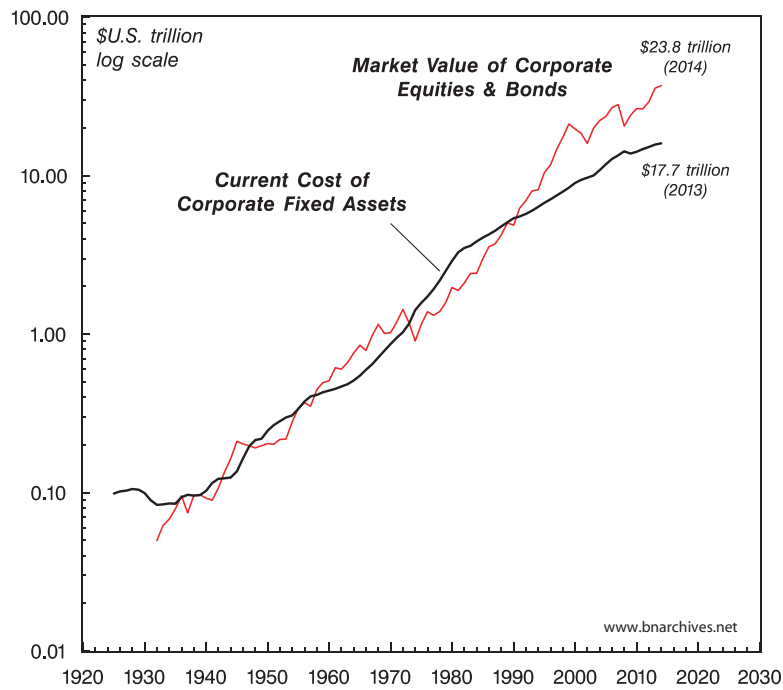
Figure 3
General Motors *versus* Microsoft, 2005



NOTE: The per cent figures indicate, for any given measure, the size of Microsoft relative to GM.

SOURCE: Compustat through WRDS (series codes: data29 for employees; data8 for net plant and equipment; data24 for price; data54 for common shares outstanding; data 181 for total liabilities).

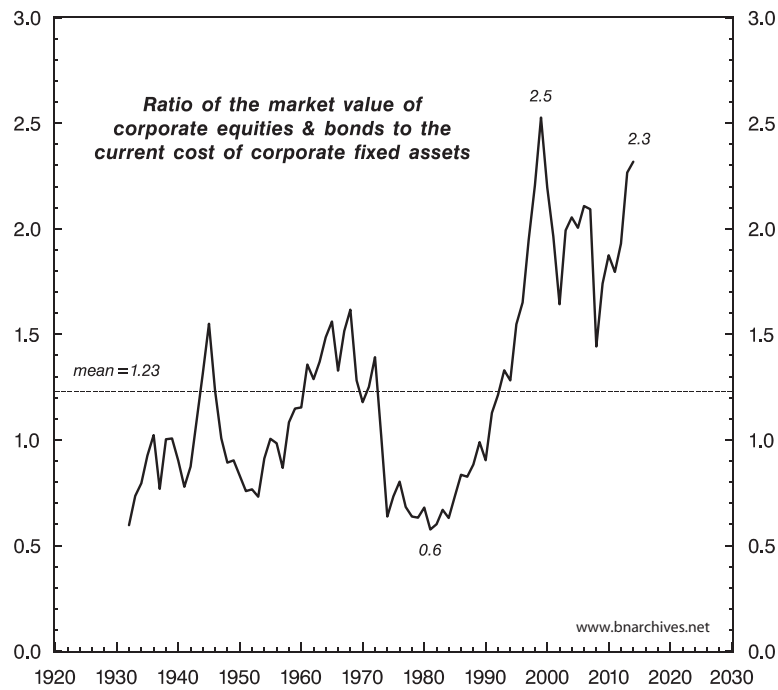
Figure 4
The 'Quantity' of U.S. Capital



NOTE: The market value of equities and bonds is net of foreign holdings by U.S. residents.

SOURCE: U.S. Bureau of Economic Analysis through Global Insight (series codes: FAPNREZ for current cost of corporate fixed assets). The market value of corporate equities & bonds splices series from the following two sources. 1932-1951: Global Financial Data (market value of corporate stocks and market value of bonds on the NYSE). 1952-2014: Federal Reserve Board through Global Insight (series codes: FL893064105 for market value of corporate equities; FL263164103 for market value of foreign equities held by U.S. residents, including ADRs; FL893163005 for market value of corporate and foreign bonds; FL263063005 for market value of foreign bonds held by U.S. residents).

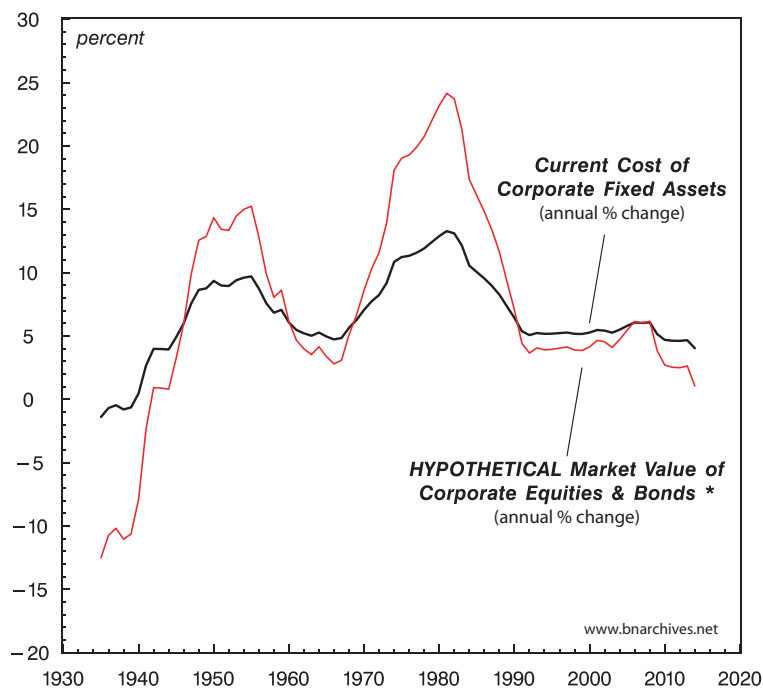
Figure 5
Tobin's Q in the United States



NOTE: The market value of equities and bonds is net of foreign holdings by U.S. residents. The last data point is for 2014 (based on the measured value of corporate equities and bonds and the estimated current cost of corporate fixed assets).

SOURCE: See Figure 4.

Figure 6
The World According to the Scriptures

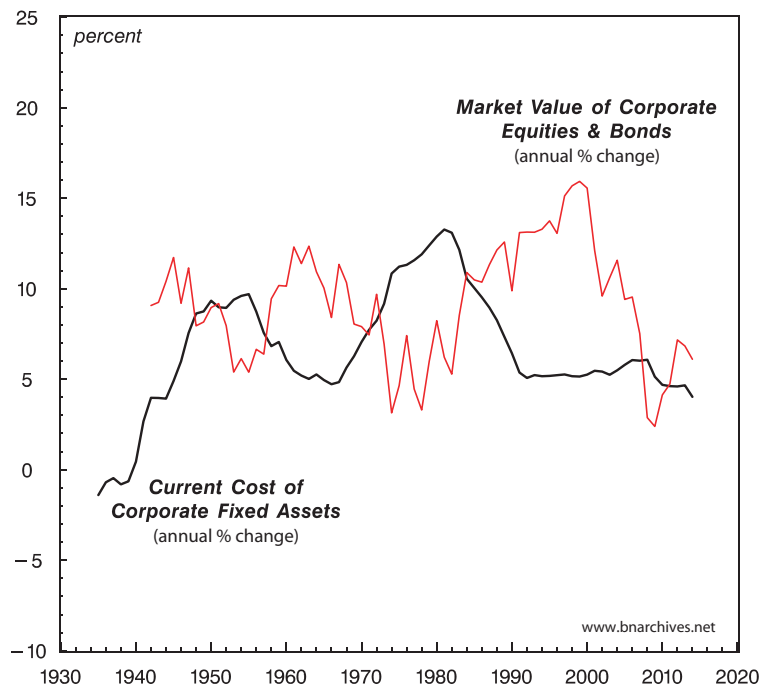


* Computed annually by adding to the historical average of the growth rate of current corporate fixed assets 2.5 times the deviation of the annual growth rate from its historical average.

NOTE: Series are smoothed as 10-year moving averages. The last data points are for 2013.

SOURCE: U.S. Bureau of Economic Analysis through Global Insight (series codes: FAPNREZ for current cost of corporate fixed assets).

Figure 7
U.S. Capital Accumulation: Fiction vs. Reality



NOTE: The market value of equities and bonds is net of foreign holdings by U.S. residents. Series are shown as 10-year moving averages. The last data points are 2014 for the market value of corporate equities and bonds and 2013 for the current cost of corporate fixed assets.

SOURCE: See Figure 4.