

### Topic 4

## What is Being Accumulated?

### Fundamental quantities

- Physics: mass, distance, time, electrical charge and heat
- Political economy: utils and abstract labour

### Separating quantity from price

- The magnitude of capital: monetary and “real”
- Computing the magnitude of “real capital”:  $MV = Q * P \rightarrow Q = MV / P$
- Circularity?
- Solution: From Parmenides to Heraclitus via Democritus
- Counting the atoms of quantity: utils and abstract labour
- Back to square one?

### Quantifying utility

- It's impossible – but let's do it nonetheless, in reverse

### Finding equilibrium

- Equilibrium: sometimes, always or never?
- Hedonic Regression: the quantitative “characteristics” of quality
- Can hedonic regressions ever be wrong?
- Can hedonic regressions ever be right?

### Quantifying labour values

- Value: use and exchange
- Labour: concrete and abstract
- Use value: subjective in consumption, objective in production?
- Conversion: skilled  $\rightarrow$  unskilled  $\rightarrow$  abstract

### A world of unskilled automatons?

- The reality of abstract labour
- Braverman's *Labor and Monopoly Capital*: what do we do with skilled labour?
- Thompson's *The Making of the English Working Class*: is labour being deskilled?
- Castoriadis: can capitalism survive deskilling? can socialism be brought by automatons?

### Converting skilled to unskilled labour

- Marx's view: the productivity trap
- Hilferding view: the exploitation trap
- The creation of a skilled labour: the black box trap

### The Marxist retreat from value

- Endorsing hedonism: the voice of Marx, the hands of the neoclassicists
- Surplus, exploitation and crisis: can Marx's laws of motion survive the absence of value?
- The neo-Marxist world: deviating from what?
- Descartes: Ctl-Alt-Del

**Separating quantity from price?**

1.  $MV = Q \times P$

2.  $Q = \frac{MV}{P}$

**Fixed assets by sector: Motor Vehicles, Bodies and Trailers and Parts**

	<b>MV (\$bn)</b>	<b>P (2005=100)</b>	<b>Q = MV/P</b>
<b>1998</b>	<b>96.7</b>	<b>1.0527</b>	<b>91.859</b>
<b>2008</b>	<b>129.3</b>	<b>1.3739</b>	<b>94.111</b>
<b>% Change</b>	<b>+33.71%</b>	<b>+30.51%</b>	<b>2.45%</b>

Source: tables on the next page

**Fixed Asset Table**

**Table 3.1ES. Current-Cost Net Stock of Private Fixed Assets by Industry**  
[Billions of dollars; yearend estimates]

Today is: 10/7/2009 Last Revised on October 01, 2009

Data Table Options		Tools Options										
First Year	Last Year	Series: <input checked="" type="radio"/> Annual(A) <input type="radio"/> Quarterly(Q) <input type="radio"/> Monthly(M)										
1998-A	2008-A	<input type="checkbox"/> Get all years <input type="button" value="Update"/>										
<input checked="" type="radio"/> HTML <input type="radio"/> Locking Stubs (Enables graph and chart generation) <a href="#">What is that?</a>												
Line		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
1	<b>Private fixed assets</b>	<b>18,627.9</b>	<b>19,866.7</b>	<b>21,240.5</b>	<b>22,585.5</b>	<b>23,749.9</b>	<b>25,180.6</b>	<b>27,746.8</b>	<b>30,600.9</b>	<b>32,870.9</b>	<b>33,928.9</b>	<b>34,260.8</b>
2	<b>Agriculture, forestry, fishing, and hunting</b>	<b>321.9</b>	<b>328.9</b>	<b>339.0</b>	<b>350.0</b>	<b>360.8</b>	<b>375.5</b>	<b>406.6</b>	<b>439.9</b>	<b>467.3</b>	<b>485.0</b>	<b>499.0</b>
3	Farms <sup>1</sup>	295.9	302.4	311.8	322.4	332.7	346.3	374.3	404.3	428.6	444.9	457.0
4	Forestry, fishing, and related activities	26.0	26.5	27.2	27.5	28.1	29.2	32.3	35.6	38.6	40.0	42.0
5	<b>Mining</b>	<b>503.7</b>	<b>496.2</b>	<b>538.5</b>	<b>609.1</b>	<b>677.2</b>	<b>698.2</b>	<b>794.7</b>	<b>1,024.4</b>	<b>1,183.2</b>	<b>1,268.4</b>	<b>1,428.4</b>
6	Oil and gas extraction	372.7	364.4	402.8	468.8	534.1	553.4	637.4	845.0	976.4	1,037.1	1,171.0
7	Mining, except oil and gas	89.5	90.2	92.1	93.2	93.9	95.2	104.2	116.0	129.6	141.3	152.2
8	Support activities for mining	41.5	41.6	43.7	47.1	49.2	49.6	53.1	63.4	77.2	90.1	105.2
9	<b>Utilities</b>	<b>952.1</b>	<b>983.2</b>	<b>1,038.4</b>	<b>1,090.2</b>	<b>1,139.7</b>	<b>1,191.5</b>	<b>1,324.7</b>	<b>1,400.8</b>	<b>1,508.0</b>	<b>1,613.1</b>	<b>1,798.0</b>
10	<b>Construction</b>	<b>145.1</b>	<b>161.8</b>	<b>173.9</b>	<b>180.5</b>	<b>189.7</b>	<b>195.3</b>	<b>211.5</b>	<b>229.8</b>	<b>251.2</b>	<b>272.9</b>	<b>295.4</b>
11	<b>Manufacturing</b>	<b>1,634.9</b>	<b>1,699.0</b>	<b>1,768.2</b>	<b>1,821.1</b>	<b>1,844.6</b>	<b>1,844.8</b>	<b>1,920.7</b>	<b>2,010.2</b>	<b>2,104.0</b>	<b>2,186.4</b>	<b>2,312.9</b>
12	Durable goods	905.4	950.8	1,002.8	1,041.1	1,052.0	1,048.7	1,087.7	1,138.7	1,188.7	1,232.4	1,304.6
13	Wood products	29.7	30.6	31.5	32.0	32.2	32.0	33.9	35.8	38.2	40.9	44.0
14	Nonmetallic mineral products	51.1	53.1	55.6	57.5	58.8	59.4	62.2	65.3	69.2	72.3	76.8
15	Primary metals	123.7	124.1	124.8	124.6	123.5	121.0	124.2	128.1	132.0	135.6	142.2
16	Fabricated metal products	104.6	108.2	112.1	114.2	115.6	115.2	119.7	124.3	129.0	132.6	139.5
17	Machinery	121.3	131.4	141.5	148.8	152.0	152.0	159.0	167.2	176.5	187.6	202.2
18	Computer and electronic products	210.8	225.3	247.4	265.9	263.5	259.9	265.9	279.4	290.1	296.6	309.5
19	Electrical equipment, appliances, and components	42.3	42.9	44.7	46.2	46.9	46.6	48.4	49.9	52.2	53.9	57.3
20	Motor vehicles, bodies and trailers, and parts	96.7	101.8	106.1	108.6	110.9	113.0	117.4	121.7	125.1	125.4	129.3
21	Other transportation equipment	70.7	76.2	79.5	81.7	85.2	86.0	89.7	95.8	101.3	107.2	116.9

**Fixed Asset Table**

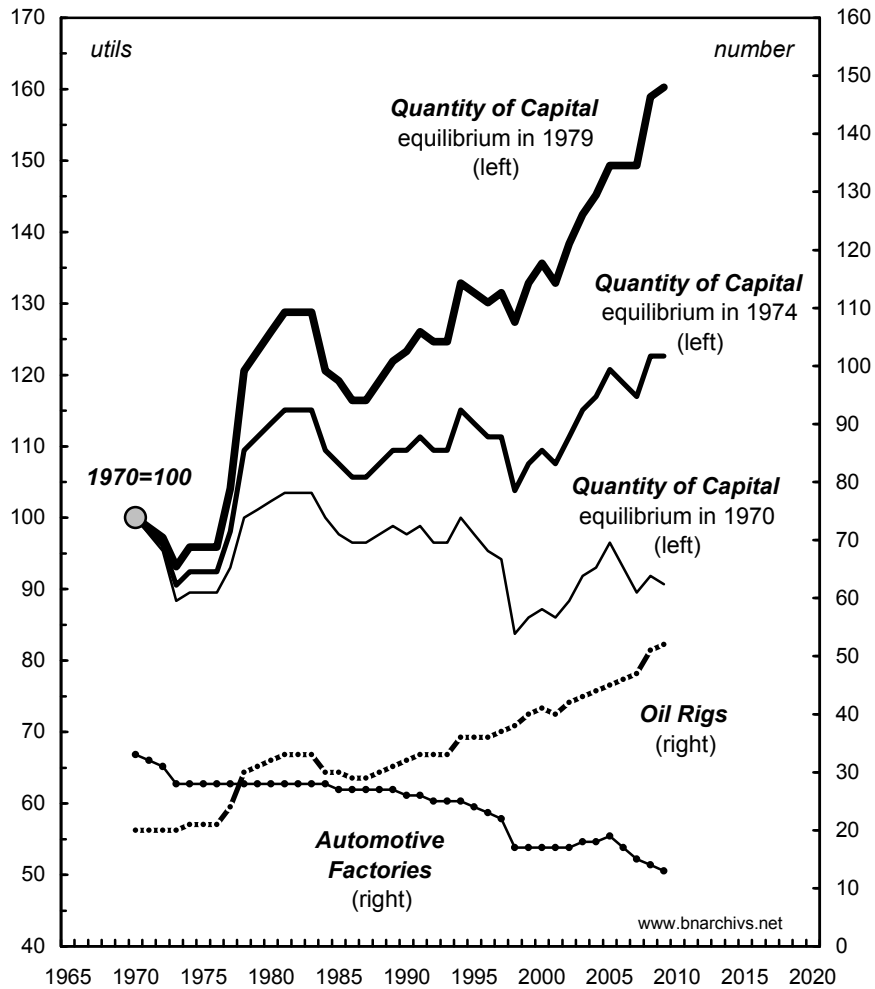
**Table 3.2ES. Chain-Type Quantity Indexes for Net Stock of Private Fixed Assets by Industry**  
[Index numbers, 2005=100]

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Data Table Options		Tools Options										
First Year	Last Year	Series: <input checked="" type="radio"/> Annual(A) <input type="radio"/> Quarterly(Q) <input type="radio"/> Monthly(M)										
1998-A	2008-A	<input type="checkbox"/> Get all years <input type="button" value="Update"/>										
<input checked="" type="radio"/> HTML <input type="radio"/> Locking Stubs (Enables graph and chart generation) <a href="#">What is that?</a>												
Line		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
1	<b>Private fixed assets</b>	<b>82.502</b>	<b>85.384</b>	<b>88.416</b>	<b>90.924</b>	<b>93.016</b>	<b>95.174</b>	<b>97.563</b>	<b>100.000</b>	<b>102.737</b>	<b>105.165</b>	<b>107.009</b>
2	<b>Agriculture, forestry, fishing, and hunting</b>	<b>93.260</b>	<b>92.852</b>	<b>93.168</b>	<b>93.783</b>	<b>95.030</b>	<b>96.229</b>	<b>98.090</b>	<b>100.000</b>	<b>101.097</b>	<b>101.960</b>	<b>102.924</b>
3	Farms <sup>1</sup>	93.443	93.008	93.346	94.072	95.410	96.590	98.294	100.000	100.931	101.850	102.846
4	Forestry, fishing, and related activities	91.180	91.078	91.145	90.518	90.732	92.142	95.782	100.000	102.983	103.215	103.818
5	<b>Mining</b>	<b>96.316</b>	<b>95.468</b>	<b>95.530</b>	<b>96.462</b>	<b>95.079</b>	<b>94.995</b>	<b>96.833</b>	<b>100.000</b>	<b>105.865</b>	<b>114.178</b>	<b>123.172</b>
6	Oil and gas extraction	95.489	94.740	94.968	96.325	94.948	95.091	97.048	100.000	105.218	113.204	122.344
7	Mining, except oil and gas	99.140	97.305	96.511	95.274	94.263	93.545	95.982	100.000	106.032	112.003	117.124
8	Support activities for mining	98.073	98.448	98.813	100.117	97.903	96.513	95.798	100.000	114.293	131.324	145.424
9	<b>Utilities</b>	<b>88.244</b>	<b>88.986</b>	<b>91.330</b>	<b>94.214</b>	<b>96.370</b>	<b>98.406</b>	<b>99.320</b>	<b>100.000</b>	<b>101.368</b>	<b>103.801</b>	<b>107.173</b>
10	<b>Construction</b>	<b>72.085</b>	<b>79.329</b>	<b>84.359</b>	<b>86.803</b>	<b>90.352</b>	<b>91.934</b>	<b>95.741</b>	<b>100.000</b>	<b>105.384</b>	<b>111.568</b>	<b>115.920</b>
11	<b>Manufacturing</b>	<b>96.045</b>	<b>98.211</b>	<b>100.448</b>	<b>101.947</b>	<b>102.016</b>	<b>100.999</b>	<b>100.073</b>	<b>100.000</b>	<b>100.191</b>	<b>100.634</b>	<b>100.892</b>
12	Durable goods	93.464	96.550	100.041	102.467	102.392	101.157	100.033	100.000	100.124	100.506	100.839
13	Wood products	100.350	101.574	102.398	102.139	101.242	99.421	99.372	100.000	101.780	104.983	106.978
14	Nonmetallic mineral products	93.104	95.099	97.764	99.487	100.415	100.181	99.773	100.000	101.482	102.354	102.967
15	Primary metals	114.981	113.366	111.841	109.965	107.586	104.299	101.860	100.000	98.607	97.872	96.980
16	Fabricated metal products	98.250	100.059	101.935	102.667	102.801	101.519	100.740	100.000	99.987	99.772	99.504
17	Machinery	83.835	89.489	94.724	98.560	99.770	99.077	99.254	100.000	101.576	104.835	107.637
18	Computer and electronic products	88.062	92.625	100.044	106.195	104.182	101.904	99.487	100.000	99.413	98.386	97.480
19	Electrical equipment, appliances, and components	102.415	101.809	104.125	105.927	106.071	104.145	102.357	100.000	99.475	99.294	99.460
20	Motor vehicles, bodies and trailers, and parts	91.859	95.434	97.908	99.143	100.320	101.435	100.815	100.000	99.060	96.332	94.111
21	Other transportation equipment	88.504	93.512	95.337	96.274	99.150	99.216	98.402	100.000	101.274	103.805	106.633

SOURCE: U.S. Bureau of Economic Analysis, Fixed Asset Tables,  
<http://www.bea.gov/national/FA2004/SelectTable.asp>, retrieved on October 7, 2009

***The Many Quantities of Energy User-Producer, Inc.***



NOTE: The number of automotive factories and oil rigs is hypothetical. The “quantity” of capital with a 1970 equilibrium assumes that the “util-generating capacities” of an automotive factory and an oil rig have a ratio of 2:1; the “quantity” of capital with a 1974 equilibrium assumes that the ratio is 1:1; and the “quantity” of capital with a 1979 equilibrium assumes that the ratio is 1:2.

**A world of unskilled automatons?**

“The indifference to the particular kind of labor corresponds to a form of society in which individuals pass with ease from one kind of work to another, which makes it immaterial to them what particular kind of work may fall to their share. . . . This state of affairs has found its highest development in the most modern of bourgeois societies, the United States. It is only here that the abstraction of the category ‘labor’, ‘labor in general’, labor *sans phrase*, the starting point of modern political economy, becomes realized in practice”.

(Karl Marx. 1911. *A Contribution to the Critique of Political Economy*. Chicago: Charles Kerr & Company, p. 299)