The Structural Crisis of Capital Accumulation in the USA and Its *Causa Prima*

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Focus on long-term tendencies in the US economy

decreasing countervailing power of labour,
falling labour share in GDP,
lower industrial capacity utilisation,
atrophy of net non-residential investment,
record high unemployment in present structural crisis.
High level of abstraction

The commodity market is not cleared for contradiction between value and use-value of commodity.

Capitalist class owns means of production and circulation; workers own their labour power that they sell to capitalists.

Abstract labour embodied in surplus product represents surplus value.

Advanced capital: non-residential (private & gov.) fixed assets.

Labour compensation equals pre-tax compensation of employees (including supplements) plus imputed labour compensation of self-employed.

Profit: NNP less total labour compensation.
HL-1 for $t < T_n = 1983$, $K/L > K_c/L_c$

Growth rate of labour force

- Growth rate of employment ratio

+ Growth rate of output per worker

- Growth rate of fixed assets

+ Capital intensity $K/L$

- Profit rate

Growth rate of employment ratio

+ Employment ratio $v$

- Relative labour compensation $u$

Growth rate of capital-output ratio

- Capital-output ratios $s$

Growth rate of capital-output ratio

+ Growth rate of capital intensity

Growth rate of rate of accumulation $k$

- Rate of accumulation $k$

+ Output per worker $a$

+ Rate of accumulation $k$

- Growth rate of output per worker

+ Growth rate of employment ratio

- Growth rate of fixed assets

+ Capital intensity $K/L$

- Profit rate

Growth rate of employment ratio

+ Employment ratio $v$

- Relative labour compensation $u$

Growth rate of capital-output ratio

- Capital-output ratios $s$

Growth rate of capital-output ratio

+ Growth rate of capital intensity

Growth rate of rate of accumulation $k$

- Rate of accumulation $k$

+ Output per worker $a$

+ Rate of accumulation $k$
Growth rate of labour compensation

Employment ratio $v$

Relative labour compensation $u$

Growth rate of capital intensity

$g$

$r$

$\nu_1$

$\nu_2$

$\nu_0$

$\dot{v}$
For $t \geq T_n = 1983$, $K/L > K_c/L_c$
The 1st structural change: profit (l., bln $ 2005/year) and profit rate (r.): sim. (diamond), observed (square), 1979–1989

Based on initial HL-1, simulated data produced with Kalman filtering with observations up to 1982. HL-1 was likely transformed in HL-2 that, probably, governed capital accumulation after 1982. A swollen unemployment of 1982–1983 could facilitate this pro-capital transformation.
Policy optimisation

Scenario II based on parametrically altered HL-2: maximising total profit for 2008-2047 under certain restrictions and finding sub-optimal parameters.

Scenario III: control law (HL-3) determines a growth rate of surplus value by a gap between target (0.95) and current employment ratios while an integral absolute divergence of relative labour compensation from the average one for 1979-2008 is minimised over 2008-2020.
Growth rate of labour compensation

Rate of accumulation $k$

(Growth rate of capital intensity)

(Growth rate of labour force)

Profit rate

Capital intensity $K/L$ — Growth rate of labour force

Growth rate of capital intensity

(Growth rate of employment ratio)

$u \dot{t}$ — Relative labour compensation $u$

Growth rate of employment ratio

Profit rate

Capital intensity $K/L$ — Growth rate of labour force

Growth rate of capital intensity

(Growth rate of employment ratio)

$Growth rate of output per worker$

$j_1$

$\mu_1$

$\mu_2$

$\mu_3$

Employment ratio $v$

$c_2$ — Growth rate of surplus value

Target employment ratio $X$
HL-3 (control law)
### Prospective scenarios of US economic development

<table>
<thead>
<tr>
<th>Variable</th>
<th>Year of previous maximum</th>
<th>Year of the 1(^{st}) exceeding previous maximum in scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of surplus value (((1 – u)/u))</td>
<td>2008</td>
<td>outside reach, 2008</td>
</tr>
<tr>
<td>Profit rate (((1 – u)/s))</td>
<td>1999</td>
<td>outside reach, 2012</td>
</tr>
<tr>
<td>Employment ratio ((v))</td>
<td>2000</td>
<td>2011, 2026, 2017</td>
</tr>
<tr>
<td>Unit labour compensation ((w))</td>
<td>2008</td>
<td>2008, 2038, 2009, 2018</td>
</tr>
<tr>
<td>Total real labour compensation ((wL))</td>
<td>2008</td>
<td>2008, 2026, 2016</td>
</tr>
</tbody>
</table>
## Indicators in scenarios and in CBO projection (January 2010), 2010–2020

<table>
<thead>
<tr>
<th>SCENARIO</th>
<th>AVERAGE GROWTH RATES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>output per worker</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>total labour compensation</td>
<td>0.023</td>
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<tr>
<td></td>
<td>profit</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td>net output</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td>labour force</td>
<td>0.007</td>
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<tr>
<td></td>
<td>fixed capital</td>
<td>0.024</td>
</tr>
<tr>
<td>I</td>
<td>0.012</td>
<td>0.023</td>
</tr>
<tr>
<td>II</td>
<td>0.013</td>
<td>0.002</td>
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<tr>
<td></td>
<td>0.054</td>
<td>0.023</td>
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<td>0.007</td>
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<tr>
<td></td>
<td>0.023</td>
<td>0.023</td>
</tr>
<tr>
<td>III</td>
<td>0.012</td>
<td>0.020</td>
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<tr>
<td></td>
<td>0.020</td>
<td>0.034</td>
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<tr>
<td></td>
<td>0.024</td>
<td>0.007</td>
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<tr>
<td></td>
<td>0.025</td>
<td>0.025</td>
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<tr>
<td>CBO</td>
<td>0.016 (potential labour productivity)</td>
<td>0.029</td>
</tr>
<tr>
<td></td>
<td>0.029 (for CPI)</td>
<td>0.033</td>
</tr>
<tr>
<td></td>
<td>0.029 (for GDP price index)</td>
<td>0.029</td>
</tr>
<tr>
<td></td>
<td>0.007</td>
<td>0.029</td>
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<tr>
<td></td>
<td>0.029 (non-farm business)</td>
<td>0.029</td>
</tr>
</tbody>
</table>
Priority of profit in real stabilisation policy

Profit priority: altered HL-2 & HL-3, 2008-2010

Corporate profits billions $ 2005

Employment (millions workers)
Conclusion
The tendency of profit rate to fall in 1969–1982 due to HL-1.

The 1st structural change
Capital transformed HL-1 into HL-2 by subordinating growth of labour compensation to growth of output per worker. Substitution of HL-1 by HL-2 in 1983 drastically improved profitability. Achieved levels of profit rate in 1997–1999 and in 2004 (just before the onset of relative capital over-accumulation) were only slightly lower than the maximal post-war profit rate observed in 1966.

The 2nd structural change
Capital rejected inertia scenario I based on unaltered HL-2 as a trap as further prospects of capital accumulation would be worse than in the finished industrial cycle (2001-2007).
The key to capitalism development and to the present structural crisis of capital accumulation, in particular, is indeed the contradiction between value and use-value of commodity (especially of labour power as commodity) as the most essential.

*causa prima*
Selected References


Idem. 2009b. A Goodwinian model with direct and roundabout returns to scale (an application to Italy) / Metroeconomica 60 (3): 343–399.