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

declining 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.

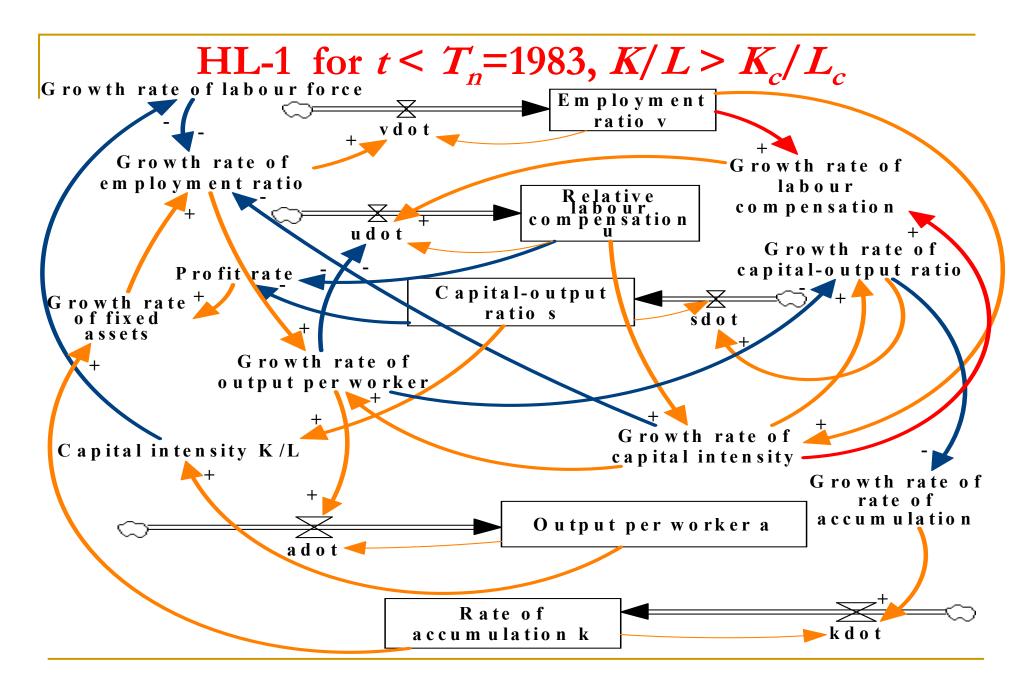
Capitalist class owns means of production and circulation; workers own their labour power that they sell to capitalists.

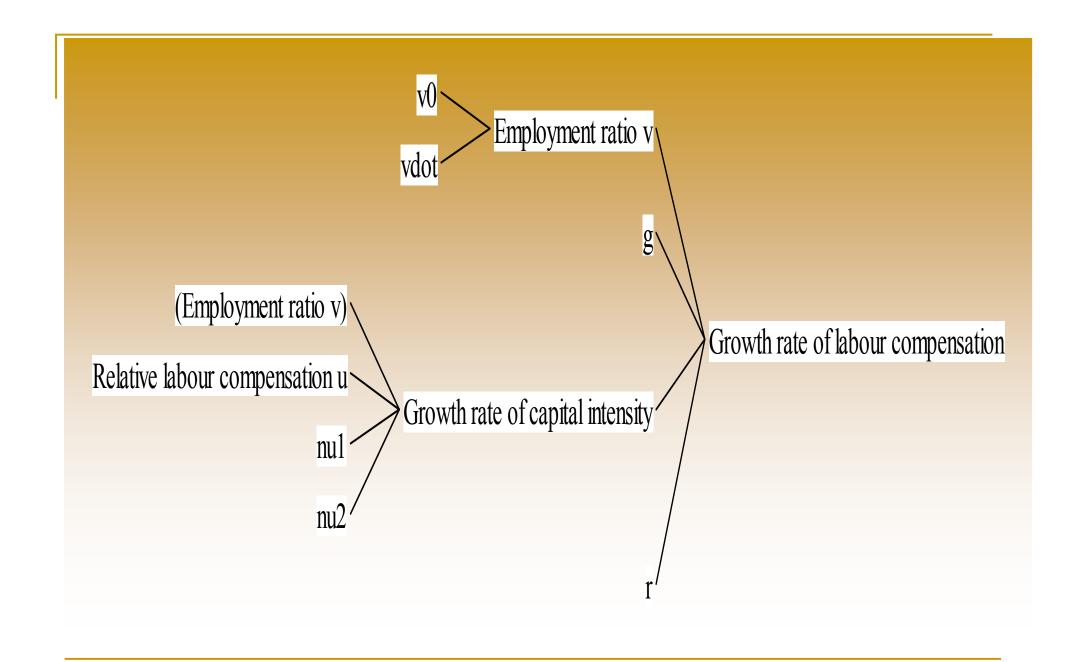
Abstract labour embodied in surplus product represents surplus value.

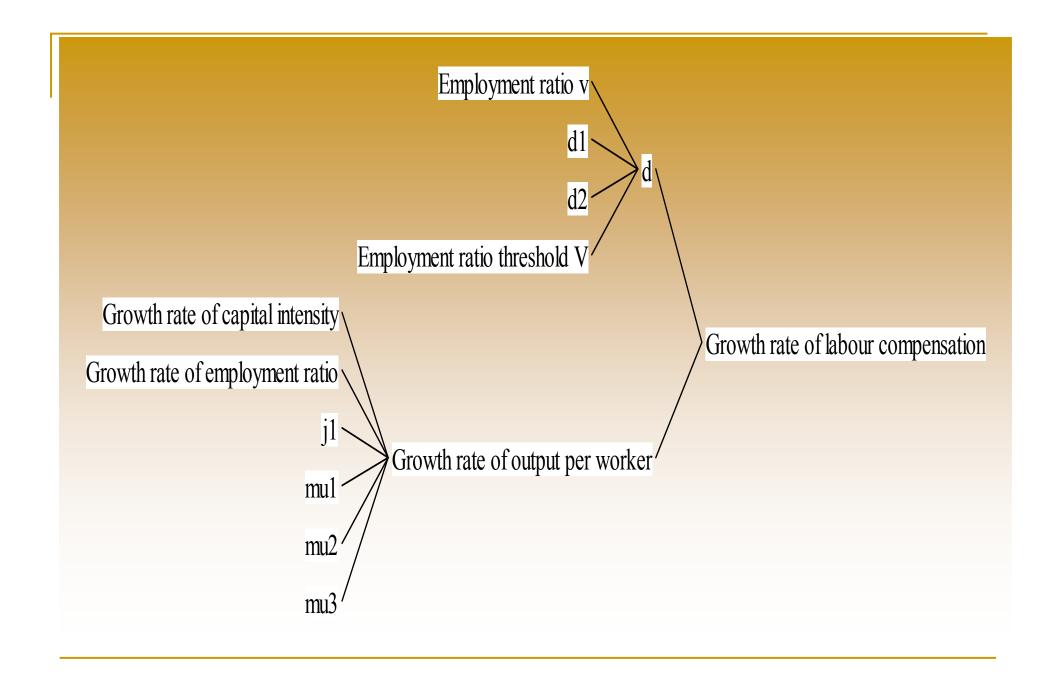
Advanced capital: non-residential (private & gov.) fixed assets.

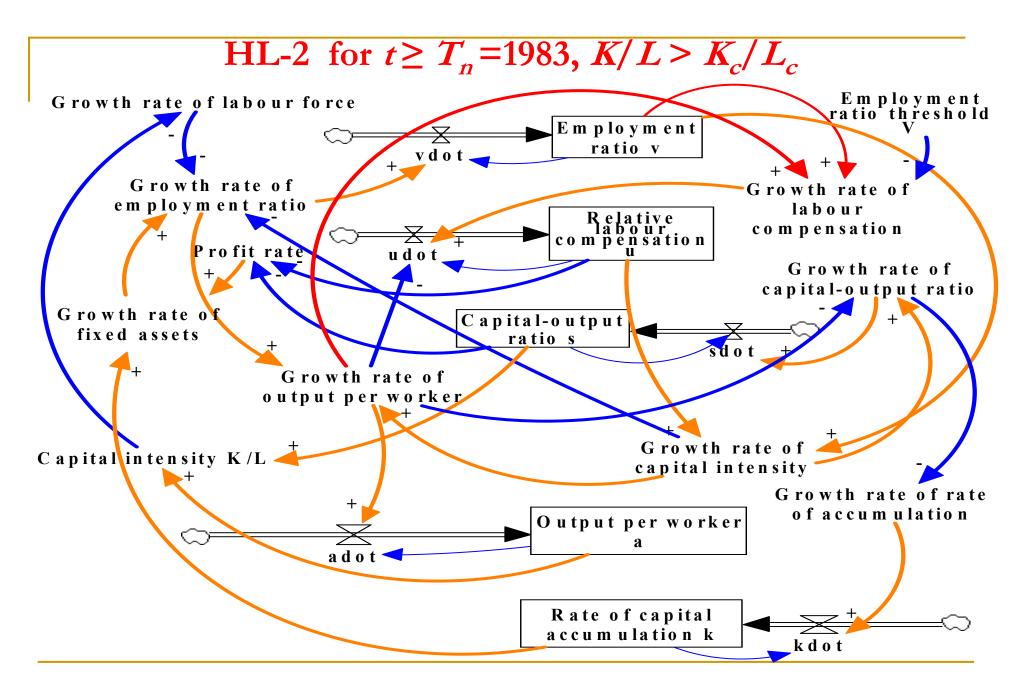
Labour compensation equals pre-tax compensation of employees (including supplements) plus imputed labour compensation of self-employed.

Profit: NNP less total labour compensation.

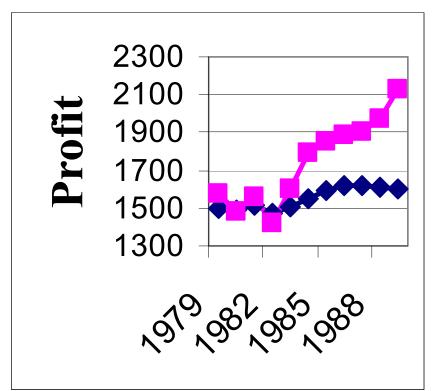


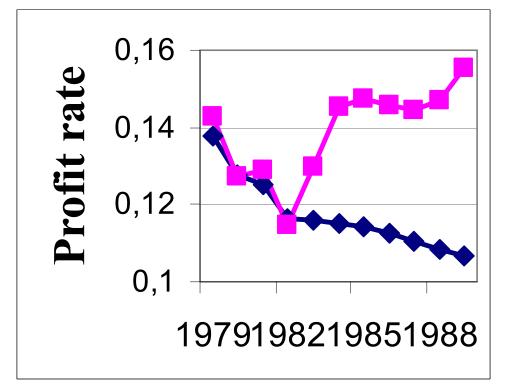






The 1st structural change: profit (l., bln \$ 2005/year) and profit rate (r.): sim. (diamond), observed (square), 1979–1989



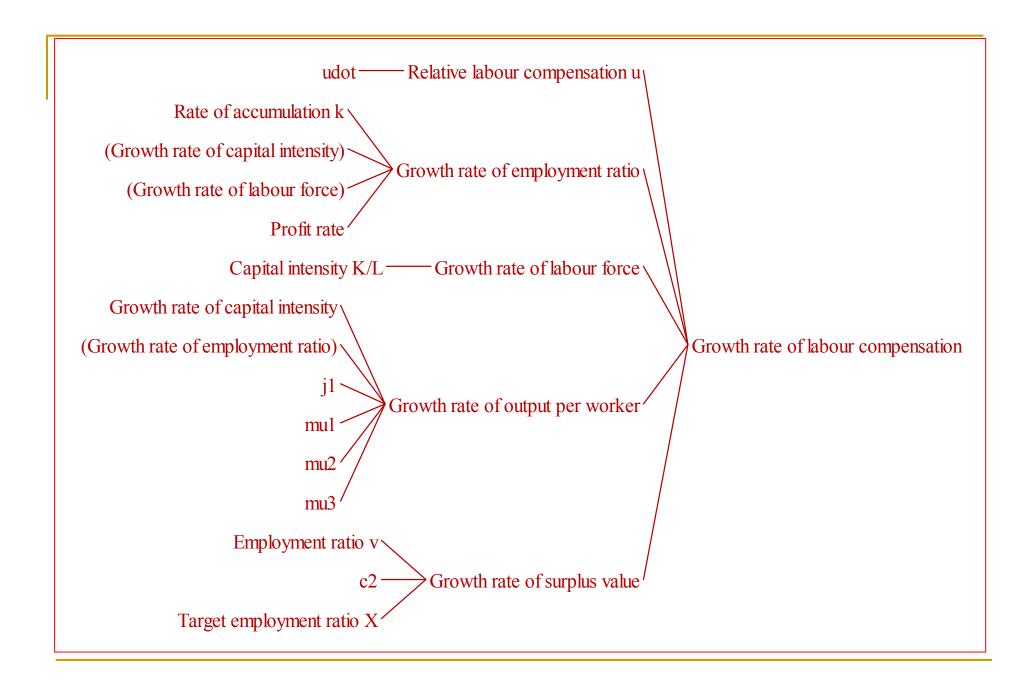


Based on initial **HL-1**, simulated data produced with Kalman filtering with observations up to **1982**. HL-1 was likely transformed in **HL-2** that, probably, governed capital accumulation after 1982. A swollen unemployment of 1982–1983 could facilitate this pro-capital transformation.

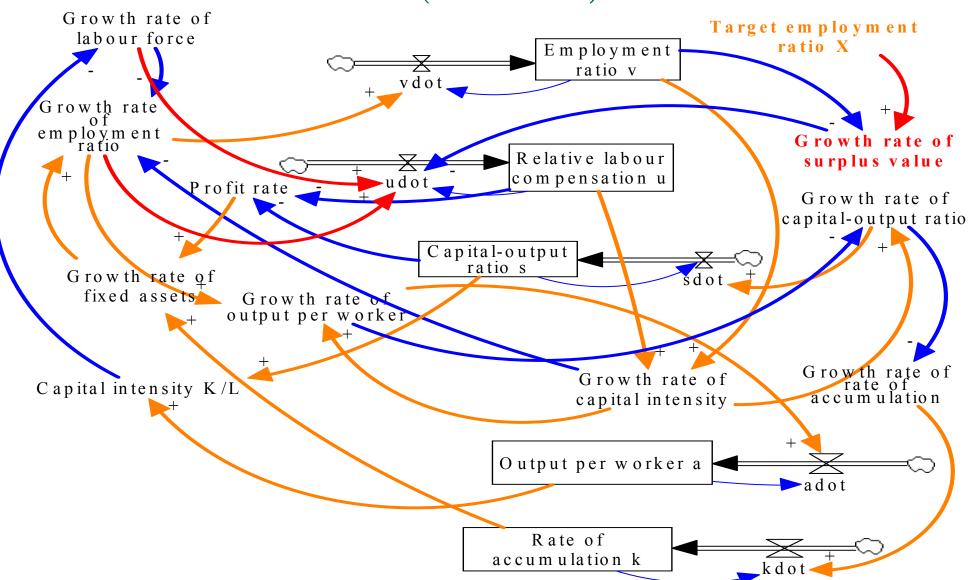
Policy optimisation

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.



HL-3 (control law)

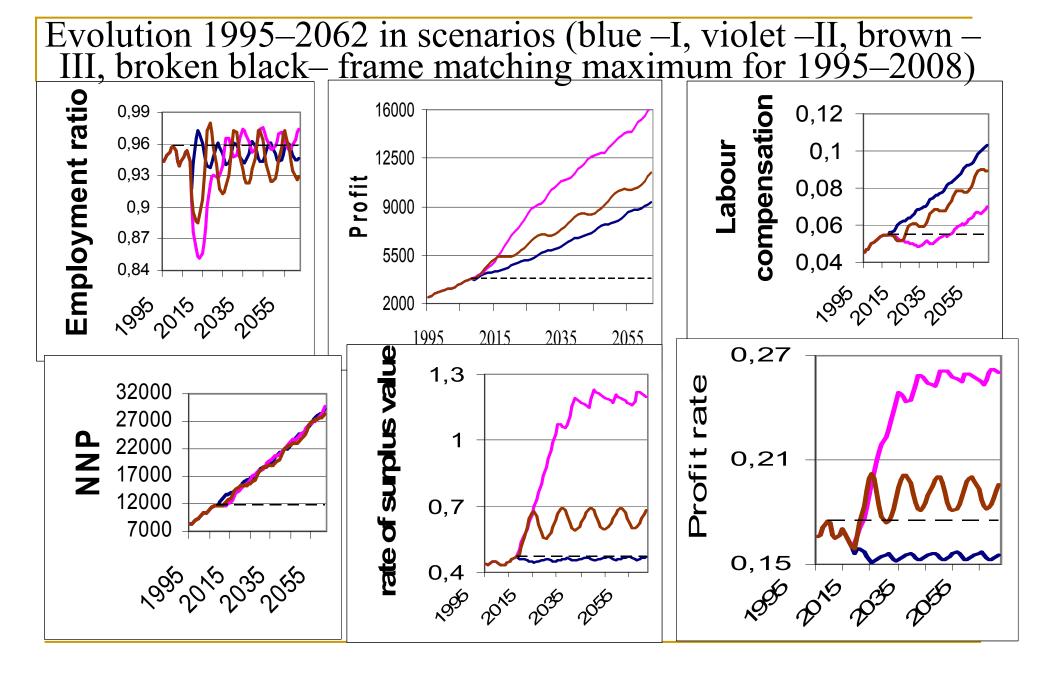


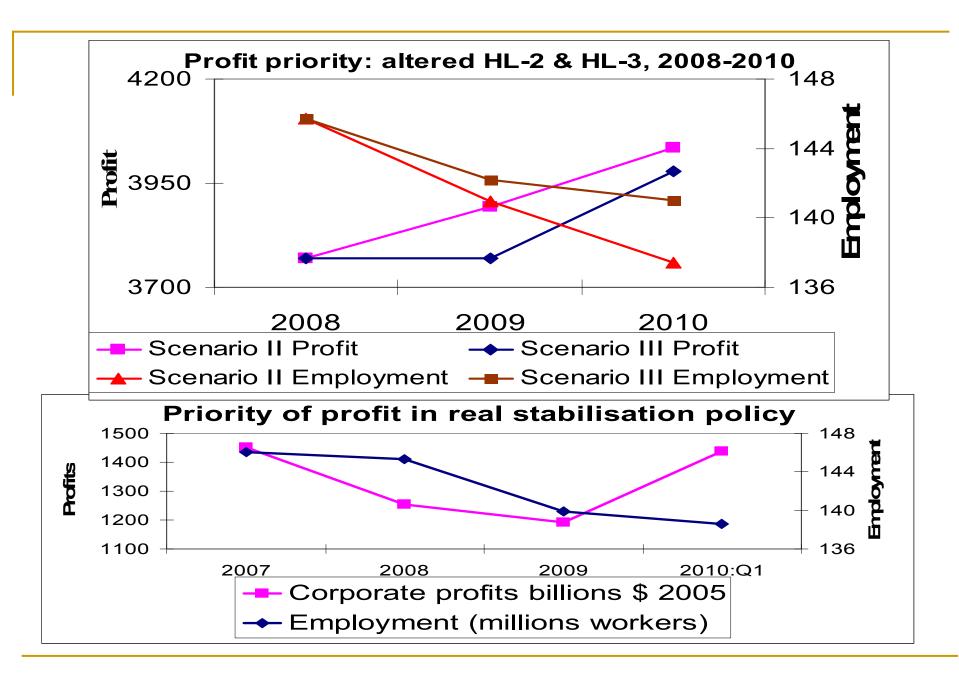
Prospective scenarios of US economic development

Variable	Year of pre-	Year of the 1 st exceeding previ-				
	vious maxi-	ous maximum in scenario				
	mum	I	II	III		
Net output (P)	2008	2010	2013	2011		
Profit $((1-u)P)$	2008	2010	2008	2008		
Surplus value ((1 -	2008	2010	2008	2010		
u)L)						
Rate of surplus value	2008	outside	2008	2008		
((1-u)/u)		reach				
Profit rate $((1 - u)/s)$	1999	outside	2012	2012		
		reach				
Employment (<i>L</i>)	2007	2010	2017	2014		
Employment ratio (v)	2000	2011	2026	2017		
Unit labour compensa-	2008	2008	2038	2009,		
tion (w)				2018		
Total real labour	2008	2008	2026	2016		
compensation (wL)						

Indicators in scenarios and in CBO projection (January 2010), 2010–2020

SCENARIO	AVERAGE GROWTH RATES						
	output	total	profit	net	labour	fixed	
	per	la-		out-	force	capi-	
	worker	bour		put		tal	
		com-					
		pen-					
		sation					
Ι	0.012	0.023	0.023	0.023	0.007	0.024	
II	0.013	0.002	0.054	0.023	0.007	0.023	
III	0.012	0.020	0.034	0.024	0.007	0.025	
CBO	0.016	0.029	0.033	0.029	0.007	0.029	
	(potential	(for	(for	(GDP)		(non-	
	labour	CPI)	GDP			farm	
	productiv-		price			busi-	
	ity)		index)			ness)	





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 overaccumulation) 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).

causa prima

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.

Selected References

- Boddy R., Crotty J. 1975. Class Conflict and Macro-Policy: The Political Business Cycle / *Review of Radical Political Economics* 7 (1): 1–19.
- CBO. The Budget and Economic Outlook: Fiscal Years 2010 to 2020 January 2010.
- Forrester J.W., Senge P.M. 1980. Tests for Building Confidence in System Dynamics Models / *TIMS Studies in the Management Sciences, Vol.* 14 // System Dynamics. North-Holland: New York.
- Marx K. (originally 1867) Capital. A Critique of Political Economy. Volume I. Book One: The Process of Production of Capital.
- Ryzhenkov A.V. 2009a. A System Dynamics Design of the US Economy Exit from the Stern Crisis / Proceedings of the 27th International System Dynamics Conference.
- Idem. 2009b. A Goodwinian model with direct and roundabout returns to scale (an application to Italy) / *Metroeconomica* 60 (3): 343–399.