

*Ed. Note: We came across the work below by Alex Foti through a posting he made to the Nettime list on August 22, 2006. We found the "Grid" to be an excellent attempt to come to grips with what too frequently seems to be our very confusing/disorienting times. As such, we contacted Mr. Foti and asked his permission to publish his work in this issue of Left Curve. He kindly consented and at our suggestion added the text below, which is a slightly reworked version of what Mr. Foti wrote in introducing his "Grid" to the Nettime list. As the author states, the work is ongoing and open to constructive critique, changes and additions. He may be contacted at: [alex.foti@gmail.com](mailto:alex.foti@gmail.com)*

# The Grid & the Fork: *Critical Dynamics of Advanced Capitalism from the Second to the Third Industrial Revolution*

[alex.foti@gmail.com](mailto:alex.foti@gmail.com)

## Introductory Note

Recently I've come across frequent references to the global geopolitical and socio-economic crisis that preceded the onset of Fordism, and how it parallels the present historical phase. I would like to share with you my convergent stuff, which sketches the structural and ideological similarities between the interwar period and the post-cold-war period, and also explores the larger question of how major boom-and-bust cycles affect political mobilization and influence social agendas. The historical stylized facts I have collected seem to be saying that near the end of long booms, revolutionary agendas can bloom, while in the troughs of depression, radical pressures on future institution-building have a tendency to carry the day. If you allow me a uchronic pun: we're re-living the 30s-40s, not the 60s-70s, for better or worse.

Since Seattle, Italian post-workerist philosophy has commanded the attention of large sections of the anti-globalization movement in Europe and America, especially among younger generations. Even if I have long been sympathetic with this tradition, if you look at it in terms of both secular and future capitalist development, I think that it harbors an unwarranted faith in the bounty of capitalism; it's revealing that many of its thinkers mistook the new economy for a utopia of socialist abundance. But the alternative view held by world-systems Marxists, who look at the present historical shift as merely a reshuffling in the U.S. composition of capital (from the dominance of technomergers to petromilitary capitalism), is way too reductive. The present discontinuity is much more than that. It's likely to be a major historic break which marks the crisis of multicultural, unipolar, globalizing, peace-waging neoliberalism and projects the world toward a monocultural, multipolar, regionalizing, war-mongering, new (and unstable?) type of regulation.

I value world-systems theory, but only for pre-Napoleonic times. In my view, the center-periphery approach in general, and Arrighi's modeling of long waves in particular, do not explain the discontinuities of the 20th and early 21st centuries.

It's telling that Arrighi forecast a Japanese ascent and an American demise precisely when the contrary was happening, i.e. on the eve of the roaring 90s. In general, in the Wallersteinian approach, there is almost no role for statecraft, ideology and historical agency, and way too much stress on structural macro-cyclicity over secular periods: capitalism is a crisis-prone system, but crises tend to be concentrated affairs following longer periods of fairly stable growth, rather than symmetric downturns of long-term upswings.

In departing from both subject-centered and structure-centered versions of Marxism, I have developed eclectic ideas on the historical taxonomy and interpretation of major capitalist crises since the Second Industrial Revolution, which are summarized in the table printed below. I've been working on it since a paper I wrote as a grad student at the New School in the early 90s. Then, after 9/11 and the invasion of Iraq, I went back to work and published a much rougher version in Italian of this synoptic table on the Rekombinant mailing list in 2003. Since then I have refined it, modeled the variables, and translated it into English. The column and row headings are really what's relevant, rather than the contents of every single cell, whose details can be improved. My approach is a pragmatist mix of Regulation and neo-Schumpeterian approaches, with Castellsian informationalism, Mann's historical sociology, and neorealist theories of great power politics.

The grid that you see below lists the macro-variables that I consider relevant in modeling the structural socio-economic dynamics and political-institutional responses in advanced capitalism (core + semi-periphery countries, if you like). Technology and the environment (the forces of production) are considered exogenous. Accumulation (private investment) and Regulation (state agency) are really what matters for the dynamics of the system in conjunction with the differential effect of ideological power: in times of regulation crisis, ideology (the superstructure, if you wish) becomes of paramount relevance in affecting the re-design of

political and economic affairs: within the same digital economy based on flexible accumulation, various institutional settings are conceivable, depending on whether Anglo-American Occidentalism prevails or not over religious and nationalist ideologies being enemies or rivals of the West.

The possibility of radically different historical outcomes is what I call historical bifurcations, clearly echoing chaos theory. Example: both National Socialism and New Deal Liberalism were effective economic answers to the Great Depression. Their social and political implications could not have been more different. In the end, Hitler's Germany was more threatening than Stalin's Soviet Union for America: why? Because it embodied an alternative model of mass modernity, unlike Russia, which was simply catching up on its backwardness by unorthodox means, much as China is doing today. Global fascism was a greater danger than regional communism. When communism became global with expansion in Eastern Europe and revolution in China, the Cold War started.

The core mechanism is simple and has to do with the tension/balance between capitalist accumulation and state regulation, the two endogenous variables (the X and the Y) on which the model depends. An accumulation crisis such as that of the 70s occurs when a consolidated technological paradigm hits against social (students and workers rebel) and economic (rising costs and decreasing profitability) constraints; while a regulation crisis occurs when the laissez-faire responses to a new technological paradigm show all its socio-economic limits (not enough effective demand, no social legitimacy) and leads to geopolitical instability (open power rivalry with a concurrent crisis in world hegemony). Regulation crises are instead those of the interwar period and of the early 21st century. Again, my contention is that ideology matters most in regulation crises, when rival institutional setups are proposed and fiercely fought over.

Looking at how world war and global finance interact with private accumulation and government regulation, I consider the balance of power among major states to be weakly exogenous to the core mechanism of the model, while the architecture of the financial and trade exchange system acts as a weakly endogenous variable, as it deepens crises and prolongs booms.

Why is war exogenous? My idea is that the outcome of a war is never pre-set and so a major military victory could influence the prevailing of one form of regulation over another (what if Stalingrad had been won by the Nazis?). But it's a weak exogenous variable, because military might is basically a function of aggregate GDP, i.e. the level of accumulation, and of ideological mobilization (revolutionary armies usually are stronger than better-equipped regular armies, for instance).

The financial and trading system is instead fundamentally endogenous, being a function of the hegemon's financial needs (Pax Britannica enforces the gold standard, while Pax Americana determines the predominance of the dollar; thus the balance of power affects the balance of payments), but also acting as an external constraint on internal accumulation (debt and financial crises). I say weakly endogenous because in the model it is not directly affected by either accumulation or regulation.

The last column, "A possible anti-dystopian future", is an over-optimistic illustration of how a radical/progressive/secular/cosmopolitan response to the clash of civilizations might look. It's more a testament to the values and aspirations of the anti-globalization movement than a viable political alternative, which we have to build together, as active people and concerned citizens, by exploring and cultivating a new science and culture whose appeal can expand beyond critical minorities.

My hope is that this grid (and the paper I've been planning to write) would help in building new and shared interpretations of major historical issues on the heretic left. Clearly there are many errors to be corrected and changes and additions that need to be made. But only if we construct a sufficiently shared narrative on the parable of capitalism and communism in the 20th century, and especially on the exhaustion of neo-liberalism at end of the century, can we create the bases for that new radical, secular, cosmopolitan, ecological, trans-ethnic, multi-gendered culture that can give new thrust to movements, fight war and rebuild the world.



# ACCUMULATION AND REGULATION (THE GRID AND THE FORK):

## *Critical Dynamics of Advanced Capitalism since the Second Industrial Revolution*

|   | FORDISM   |                        |  | POSTFORDISM   |   |  |   |  |   |
|---|---|------------------------|--|---|---|--|---|--|---|
| MACRO variables   | 1890s-1920s   |                        |  | 30s & 40s   | 50s & 60s   | 70s  | 80s & 90s   | 00s  | 2010s & 2020s?  |
|   | National-liberal regulation: Belle époque   | Great War & Revolution | Roaring 20s: liberal restoration attempt | BIFURCATION I – regulation crisis: Great Depression & World War   | Post-Keynesian reformism: welfare/warfare state   | Social crisis of global accumulation   | Neoliberal revolution: global corporate state   | BIFURCATION II – regulation crisis: Great Recession & Global War   | ANTIDYSTOPIAN FUTURE: transnational progressivism & active democracy  |
| <b>Tecnology, Info sphere Biosphere</b><br><i>exogenous</i>                         | second industrial revolution and start of industrialism: electro-mechanic tech, electric lighting, industrial chemicals and dyes; combustion engine; diffusion of mass dailies, radio and telephone, silent movies;; coal key energy input, extensive agriculture   |                        |  | industrialism: motorization, aviation, tanks, rise of oil as key energy input; radars and early computers, sound cinema, mass propaganda; agricultural crisis and wartime subsistence agriculture   | industrialism: white goods, autopia, aerospace, plastics, cosmetics, the pill and antibiotics; mass publishing, broadcasting television; gasoline and natural gas, petrochemicals, nuclear energy, regulated and subsidized intensive agriculture: green revolution   | transition from industrialism to informationalism starting from US West Coast, containerization, independent radio stations, satellites, commercial TV, mimeograph flyers and samizdats, mass non-fiction and popular comics, two oil crises, environmental limits to intensive growth | third industrial revolution start of informationalism: rise of ICT, liberalization of networks, biotechnologies, semiotic and status goods; the Internet explosion: e-mail, Web browser; PC, CD, modem, router, cellular telephony, cable/satellite TV, global media conglomerates; global warming from fossil energy, OGM vs organic agriculture           | informationalism: networking, open source, P2P, GPS, genomics, neuroscience; ecocide: global inurbation, sharp decrease in biodiversity, polar melting, droughts and floods  | informationalism: wireless net, knowledge-sharing, stem-cell cloning and genetic therapies, nano, crypto, quantum; solar/wind energy, hydrogen from non-CO2 emitting sources, low-entropy agriculture, reforestation  |
| <b>Accumulation (The dynamics of Capital)</b><br><i>main endogenous</i>             | intensive: mass production of investment and intermediate goods, elite consumerism, international financial cartels, monopolistic competition   |                        |  | intensive: high productivity growth, over-production and under-consumption crisis, then expansionary war economy  | intensive: scale economies, mass production and mass consumerism of consumer durables, multinational groups, oligopolistic competition  | transition from intensive to flexible: profitability crisis due to high costs, stagnation in productivity, structural rigidities, scale diseconomies, bureaucratic elephantiasis, environmental constraint; crisis epicenter: US and EEC   | flexible: low productivity growth, economies of scope, customized mass consumption, transnational market concentration, competition among global production/communication/knowledge networks  | flexible: high productivity growth, systemic diseconomies, overinvestment crisis and sagging mass demand, monopolistic concentration and omnimedia oligopolies   | modulable: high productivity growth, reduction of energy consumption and/or carbon emissions, expansion of consumer demand from formerly excluded individuals and collective groups, regulated competition among nimble organizations and economic regions  |
| <b>Regulation (the State and the Capital-Labor nexus)</b><br><i>main endogenous</i> | decline and crisis of classical liberal regulation based on government-bosses alliance, industrial reserve army of labor, low wages, monetary and budgetary orthodoxy, little social legislation and spending, polarized income and wealth distribution; direct action, mass strikes, Second and Third International (mayday and world workers' movement) 8-hour day, Sundays off |                        |  | conflictual: right vs left, class violence and war, employers' confederations vs industrial unions, sitdown strikes, militarization of labor force, contro sinistra, worktime and leisure regulation for white and blue collars: paid weekend and holidays, monetary and fiscal policies first restrictive then expansionary; crisis epicenters: US and Germany | keynesian/fordist: capital-labor compromise guaranteed by state, national and sectorial employers' and union federations, nationalization of utilities and heavy industry, moderately expansionary monetary and fiscal policies, cost-of-living wage adjustments, full male employment, high wages, high social spending, rebalanced income distribution, consumerized leisure: generalization of weekend and increase in overtime work | conflictual: crisis of neo-corporatism, working-class protest and rank-and-file insurgency, distributional conflicts, stagflation, expansionary fiscal policy, restrictive monetary policy, expansion in insubordinate free time (demonstrations, wildcat strikes, absenteeism)        | neoliberal/monetarist: labor's defeat and subalternity of state to large corporations, financial deregulation, monetarism: high unemployment, low wages, deinstitutionalization of employment relation, squeeze in social spending, polarized income and wealth distribution, restrictive monetary and fiscal policies, expansion/fragmentation of worktime | conflictual: global movement vs megacorpse US-sponsored wars, lower-class resistance to welfare cuts and privatizations, middle-class resistance to digital enclosures; no copyright & free media, temps and precarians against social exclusion, expansionary monetary policy, restrictive fiscal policy, tendential saturation of waketime by worktime and/or consumption; crisis epicenters: Asia, Americas | neokeynesian/schumpeterian: flexicurity, redistribution of productivity toward labor, new welfare oriented toward individuals and pools of talent, re-regulation of labor market, basic income, actual reduction in worktime, right to continuous education and income stability, participated democracy/technology, expansionary monetary policy, alternative/complementary currencies, generalized access to global commons reduction of inequalities |

|   |   |   |   |   |  |  |  |
|---|---|---|---|---|--|--|--|
| <b>Business Organization, Labor Process and Unionism</b><br><i>endogenous</i> | single-product firms, authoritarian/paternalist organization, mass migrations, craft unionism, industrial unionism, birth of the white collar and first feminization of labor | rise of multiproduct/multidivision firm, repression of working-class movement in Axis powers, stakhanovism and forced labor in USSR, curbs in migration, WWII full employment in US, interethnic industrial unionism, feminization of heavy industrial work | expansion of multidivisional multinationals, supply-oriented hierarchical/bureaucratic organization, human resource management, neocorporativism; big business big labor partnership, male re-gendering of wage labor, controlled migrations, rise of educated middle class, public sector unionism | transnational conglomerate (keiretsu), hierarchical (management)/horizontal (line production), robotization/ flexible automation, shop-floor radical unionism, white collars' democratic emancipation | transnational network firm: horizontal organization, lean but mean, toyotism: just-in-time and zero-stock manufacturing; tertiarization and feminization of employment, mass migrations, flexibilization, deskilling/upgrading of labor force, restructuring and downsizing, deunionization and co-management/company unionism, expansion of technical/ knowledge labor and professional strata: precariat and cognitariat: dual labor markets | flat organization of oligopolistic megacorporations affected by governance and political/social constraints. outsourcing/offshoring networks, individualization and disgregation of labor, social/ conflictual unionis, flexworkers' syndicalism, polarization of job tasks and pay scale, widening of gap in earnings, networkers/ networked divide | dismembering of megamonopolies, multinodal network organization, cosmopolitization of labor force at all skill levels, stakeholder capitalism, solidarist networks of information/ knowledge sharing, empowerment of marginalized communities, heteronomous groups of social and media activists, transnational unionism |
|---|---|---|---|---|--|--|--|

| <i>MACRO variables (continues)</i>                                    | <b>1890s-1920s</b><br><b>From laissez-faire liberalism to nationalism and socialism</b>  | <b>30s &amp; 40s</b><br><b>BIFURCATION I</b>  | <b>50s &amp; 60s</b><br><b>Post-Keynesian reformism</b>   | <b>70s</b><br><b>Global social crisis</b>  | <b>80s &amp; 90s</b><br><b>Neoliberal revolution</b>   | <b>2000s</b><br><b>BIFURCATION II</b>   | <b>2010s &amp; 2020s?</b><br><b>A possible antidystopian future</b>   |
|---|--|---|---|--|--|---|---|
| <b>Ideology &amp; Political Mobilization</b><br><i>exogenous</i>      | socialism, liberalism, anarchosyndicalism, nationalism, modernism, leninism  | fascism/nazism, communism/stalinism, popular front/ liberal democracy   | social democracy, christian democracy, managerialism, antimperialist marxism, generational anarchism, third-world nationalism   | global democratic revolution; East-West European movement; feminist revolution, islamic revolution, marxist guerrillas/ radical marxism                            | neoliberalism, nationalism, post-modernism, environmentalism, multiculturalism, islamic nationalism, liberation theology, developmental national capitalism, queer movement  | bushist neoconservatism, Sunni fundamentalism, Shia ascendancy, Chinese nationalism, Latin America anti-imperialism, antiglobalization movement: (egalitarianism, transgenderism, cyberanarchism)   | libertarian democracy, social ecogism, indio socialism, populist islam, neosyndicalism, informational commonalism, heretic marxism, new genderism, south-north transnationalism   |
| <b>Geo-politics &amp; Balance of Power</b><br><i>weakly exogenous</i> | unbalanced multipolar: first concert then league of nations, german attempt at hegemony blocked by Franco-British with US help; British primacy in decline, rise of US and Germany; first anti-colonial movements, first genocides; two Russian revolutions, Mexican revolution, white army vs red army civil war, reds-whites civil war in rest of Europe, early spread of reactionary regimes, creation of Comintern | potential hegemony Germany/Japan: systemic world war vs Allies and USSR: soviet industrialization and defeat of nazi Lebensraum; genocide of European Jews and ethnic/political/sexual minorities; USSR dominating land power in Eurasia after Stalingrad; US is hegemon on Atlantic (inherits British naval power) and on Pacific (defeat of Japan's Co-Prosperity Sphere); civil wars: antifascism vs fascism | stable bipolar: creation of UN, Cold War, military/ideological competition between USA and USSR, NATO vs Warsaw Pact, Common Market vs COMECON, free world vs popular democracies; decolonization, non-aligned countries, proAmerican and pro-Soviet dictatorships; Nippo-European economic miracle: reduction of economic gap with USA | unstable bipolar: Soviet stagnation, post-Vietnam American crisis, China-US rapprochement, reactionary counterrevolutions, secret wars, anti-imperialist terrorism | unbalanced multipolar: American rearmament and hyperpower, decline and implosion of Soviet Empire, neoliberal cosmopolitanism, European unification, rise of Asian tigers, China's state capitalism and nationalist India; nationalist civil wars and ethnic genocides, first panafrican war | 9/11 and 7-7: first global war; systemic conflict against transnational jihadi megaterrorism (and rise of Iran); US drive for global hegemony, leftward shift in Latin America, competition/cooperation with regional rivals in Asia (China) and Europe (EU), G4 quest for security council | balanced multipolar: New Global Democracy under UN control, Liberal North America, Federal Social Europe, Bolivariist Latin America, Asian Prosperity Non-Aggression Pact, Pan-Islamic Union hegemonized by Iran African Union under South African leadership |

|   |   |   |  |   |  |  |   |
|---|---|---|--|---|--|--|---|
| <p><b>World Finance &amp; International Commerce</b><br/><i>weakly endogenous</i></p> | <p>Black Tuesday: Wall Street crash, crisis of gold standard, postwar inflationary crises, monetary stabilizations, American loans and German reparation, trends in terms of trade in favor of industrial goods, rising protectionism, wartime economic blockades</p> | <p>currency crises, deflation and competitive devaluation, drop in prices of agricultural and other, manufacturing prices stay stable, widespread protectionism, autarky, bank failures, end of international financial system; financial reconstruction at Bretton Woods/ industrial reconstruction with Marshall Plan</p> | <p>dollar standard (fixed exchange rate), moderate inflation, low capital mobility, creation of GATT, IMF, World Bank, progressive liberalization of trade and reduction in tariffs, growing US trade deficit, dollar and pound devaluation with respect to D-mark and yen, growth in Nippo-German reserves: imported inflation; prices of primary goods slowly decline, prices of secondary goods slowly rise</p> | <p>dollar's convertibility crisis and end of Bretton Woods regime: floating exchange rate, high inflation, euro/petrodollars: newly-found freedom of capital movement leads to creation of world financial market, neoprotectionism of South vs North, demise of Phillips' curve, non-tariff protectionism, price rise of primary goods: terms of trade favorable to LDCs and Soviet Union: third-world and eastern bloc indebtedness</p> | <p>flexible exchange rates and financial deregulation: yo-yo movement in mark-dollar-yen parities (Plaza &amp; Reverse Plaza); stock exchange booms and busts, reduction of inflation and budget deficits, accelerated liberalization of capital movements, then trade: US becomes net capital importer, drop in prices of raw materials; debt crisis in Latin America, Africa and Balkans; economic regionalism: creation of EU, Mercosur, NAFTA, WTO, European monetary integration, euramerican trade tensions and amerasian financial wars</p> | <p>crisis of New Economy, monetary unifications, currency areas in competition for financial domination (¥?\$/), creeping deflation in the system's core, US double deficit, currency crises in emerging economies (Mexico, East Asia, Russia, Argentina), Cina enters WTO; trade tensions between G8 and G22, decreasing manufacturing prices and increase in price of energy and commodities</p> | <p>reregulation: semi-fixed exchange rates among regional currency areas, limitation of speculative financial flows, liberalization of Northern markets to Southern exports, universal microcredit guaranteed by international agencies/ NGOs, global environmental and labor standards; global stabilization in prices of raw materials and agricultural commodities, stable industrial prices, slow rise in agricultural prices</p> |
|---|---|---|--|---|--|--|---|