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The CasP Project: Past, Present, Future

Review of Capital as Power

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The CasP Project

Past, Present, Future

SHIMSHON BICHLER and JONATHAN NITZAN[1]

Abstract

The study of capital as power (CasP) began when we were students in the 1980s and has since expanded into a broader project involving a growing number of researchers and new areas of inquiry. This paper provides a bird's-eye view of the CasP journey. It explores what we have learned so far, reviews ongoing research, and suggests future trajectories – including the coevolution of Concepts of Power–Modes of Power (COP-MOPs); the origins of capitalized power; the state of capital; finance as the symbolic *creordering* of capitalism; the role of labour, production and waste; the capitalized environment; and the need for post-capitalist accounting.

Introduction

This paper uses a broad brush to paint the evolution of the CasP project. The acronym CasP, coined by D.T. Cochrane, stands for 'capital *as* power'. It is a new, radical approach to the study of capitalism, and, as such, it contrasts sharply with both liberal and Marxist political economies. The key premise of this approach is that capital is not a material/productive entity, but a symbolic representation of power. Capital, this approach argues, is not a narrow economic entity, but the key social institution that *creorders* – or creates the order of – capitalist society. And because capital is a power institution – i.e. conflictual and therefore dialectical – it should be understood not in absolute terms, but in relative, or differential, terms.

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The CasP approach was born out of our joint research, which started when we were students back in the 1980s. Since then, the approach has broadened and deepened. It has spread to cover new areas, develop new concepts and better articulate its own arguments. Moreover, and perhaps more importantly, CasP is now attracting young researchers who push it in new directions, both empirically and theoretically.

The paper is subtitled 'Past, Present, Future', and its structure follows this progression. It begins by tracing the evolution of the CasP project from its inception in the early 1980 to the present. It continues by describing some of the current research done by the younger generation. And it concludes by sketching several possible trajectories for future research.

The last part is particularly important. CasP is still very much in its infancy. Its fundamental principles are very different from those underlying existing approaches, and this difference means that *every* socio-historical phenomenon needs to be re-searched. Indeed, seen through the spectacles of CasP, the entire capitalist cosmos has to be re-conceived and re-mapped. And since this work is merely beginning, we would like to suggest some directions for those who wish to join the adventure.

We have written this paper for a broad audience, ranging from those who know little about CasP, to those who know something, to those who are deeply engaged in its research. Keeping this range in mind, our challenge is to make the argument accessible yet useful. To do so, we try to build an evolving picture of the entire project, to focus less on the details and more on the general lessons. We strive to emphasize not this or that component of the project, but how its various elements relate to and are enfolded in one another.

I. PAST

Research

Begin with the word 'research'. To re-search, means to search *again*. It implies doing something different, finding something new, saying something novel. Every graduate student knows the drill: you need to come up with a 'research question', a central query to guide your intellectual journey, a path to your eventual 'original contribution'.

This ritual is inspired by the founding fathers of modern science. It is a salutation of sorts to the generation of Copernicus, Kepler, Galileo, Descartes and Newton – as well as to their followers, from Faraday, Maxwell and Einstein to Smith, Bentham and Marx. These scientists broke new ground. They raised doubts, found contradictions, asked new questions and, eventually, offered totally new ways of understanding the world. Whatever their inclinations, they were all revolutionaries. They sought fundamental change. And they sought this change even though they themselves rarely knew exactly where they were going. It is not for nothing that Arthur Koestler called them the 'sleepwalkers' (Koestler 1959).

But this revolutionary period is long gone, certainly in the study of society. The baffled sleepwalkers have given way to academic troopers marching the trotted path. Few social researchers nowadays look for truly new answers, let alone raise truly new questions. Instead, they follow a template.

The first and most difficult step in this template is to find a 'gap in the literature'. But once you find this gap, the road is pretty much charted. The guidelines are simple: place yourself in your newly found gap, sandwiched on all sides by established experts; review these experts' claims, showcasing your virtuosity with endless citations and numerous references; make sure you don't step on the wrong toes and remember to flatter those who might offer you a future job; and keep safely within the consensus and stay away from divisive questions – indeed, if possible, try not to ask any questions at all.

In job interviews, I (Nitzan) sometimes ask the candidates what their biggest research failure, or their most surprising finding, was. When they look at me with surprised eyes, I know. They have never failed; they have never been surprised; they have probably never asked a question they haven't already had the answer to. In short, they have never done any research.[2]

And so science has been taken over by the church once again. The situation is particularly dire in economics. In the early 1970s, Joan Robinson, a heterodox practitioner, predicted

[2] (This footnote puts the cart before the horse. It uses terms that we clarify only later in the article, so readers who are unfamiliar with CasP might wish to skip it for now and return to it later.) Our own research is littered with surprises and errors. Take our work on the global political economy of the Middle East, which we discuss later in this article. This work demonstrated that, since the late 1960s, regional 'energy conflicts' tended to generate differential oil-price inflation (oil prices rising faster than the overall rate of inflation), and that this differential oil-price inflation helped the leading oil companies beat the average and exceed the normal rate of return. Our work also showed that periods of differential *de*cumulation by the oil companies (i.e., periods when these firms trail the average and fall short of the normal rate of return) created Middle East 'danger zones', and that, historically, these danger zones were always followed by 'energy conflicts' (oil-related wars and hostilities). These remarkable regularities led us to expect the recent underperformance of the oil companies to be followed by renewed energy conflict; to see these conflicts rekindle differential oil-price inflation; and to have this relative inflation boost the differential accumulation of the oil companies (Bichler and Nitzan 2015c). So far, though, this sequence seem to have stalled. The region has indeed fallen into renewed turmoil (the Arab Spring, outsourced wars, ISIS); but to our surprise, oil prices, instead of rising rapidly, have collapsed, and the oil companies, instead of beating the average, continue to trail it.

Another illustration is offered by our work on systemic fear and systemic crisis (Nitzan and Bichler 2009b; Bichler and Nitzan 2010b). In this work, we argued that, in modern capitalism, systemic fear – i.e., the fear of capitalists for the very existence of their system – manifests itself in the breakdown of the capitalization process. Gripped by systemic fear, capitalists no longer trust their own rituals and abandon their forward-looking posture. Instead of capitalizing their assets based on expected *future* profits, they discount *current* ones, and this reversion is manifested in a tight positive correlation between current earnings and current assets prices. Since such a correlation should *not* exist under normal circumstances (including 'normal' periodic crises), its presence offers a quantitative indicator that capitalists have been struck by *systemic* fear. Our empirical research indicated that this positive correlation has emerged twice since the 1920s – first during the Great Depression of the 1930s, and then again during the deep crisis of the 2000s – and we took these two correlations as evidence that, during both periods, capitalists had been gripped by systemic fear. In retrospect, though, this was a hasty conclusion to draw. In his critique of our work, Andrew Kliman showed that we had erred. The positive correlation between current asset prices and profits that our research claimed had occurred only in the 1930s and the 2000s in fact also existed during other, *non*-crisis periods. Naturally, we found this critique embarrassing. At the same time, the fact that our research could be empirically challenged affirmed its scientific basis, while the ensuing debate helped us refine our concepts and restate our findings (Kliman, Bichler, and Nitzan 2011).

somewhat sarcastically that future generations of students would 'erect elegant-seeming arguments in terms which they cannot define' and will be busy searching for 'answers to unaskable questions' (Robinson 1970: 317). And sure enough, a decade or so later, Nobel Laureate Wassily Leontief confirmed that economists had practically abandoned the pursuit of open-ended empirical research in favour of formal mathematical modelling, and opined that this abandonment was likely to persist as long as the 'methods used to maintain intellectual discipline in this country's [the United States] most influential economics departments can occasionally remind one of those employed by the Marines to maintain discipline on Parris Island' (1982: 107). More recently, David Hakes explained in his 'Confession of an Economist' that journals tend to consider simple ideas scientifically unworthy, and that, in order to publish rather than perish, writers have to 'intentionally take a simple clear research paper and make it so complex and obscure that it successfully impressed referees' (2009: 349).

According to research done by Joseph Francis (2014), the discipline of economics seems to have finally reached its ultimate goal of perfectly stationary equilibrium: *its members no longer argue with each other*. This wasn't always the case, though. Francis measures the proportion of debate articles in leading economics journals by looking at papers with the terms 'comment', 'reply' or 'rejoinder' in their titles, and he shows that, historically, this proportion has followed an inverted V-shape trajectory. The twentieth century started with very little debate. During the happy 1920s, with free-market ideology reigning supreme, economists rarely disagreed with one another and the proportion of debate articles hovered at around 2 per cent. This widespread agreement, though, didn't last for long. The onset of the Great Depression, the turmoil of the Second World War and the rise of the welfare-warfare state served to challenge orthodoxy and made the dismal science look almost lively. From the 1930s onward, disagreement increased more or less continuously, and in 1968, with France teetering on the edge of a democratic revolution, the number of debate articles reached a full 22 per cent of the total. But that was the peak. By the late 1960s, Milton Friedman's counterrevolution was in full swing, and with neoliberalism in the offing, the pendulum began to swing back. And as the neoclassical dogma systematically decimated its ideological competitors, the proportion of debate articles collapsed, reaching a mere 2 per cent in 2013. It was as if history had never happened.

Theories and Facts

Science cannot progress this way. It needs dialogue, debate and, most importantly, negation – and that can be achieved only if we come to terms with the facts. Of course, the facts are never simply 'given'. They are always part of an overarching cosmology, a prevailing order, a certain logic. The first step in any dialectical thinking, therefore, is to understand the ways in which the rulers impose this cosmology and generate what society then accepts as self-evident facts. It is only by contravening, delimiting and moving beyond what 'is' that we

manifest our autonomy. It is only by transcending the seemingly heteronomous order that we can conceive a better, freer society.[3]

This, though, is exactly what most contemporary students of society, both positivist and postist, do *not* do. At one end of the spectrum we have the fact foregoers. The spread of anti-science postism has conditioned many to think of facts as figments of our subjective imagination, and therefore as unimportant, if not totally irrelevant. When they find the 'facts' inconvenient, they simply forego them. The other end of the spectrum is dominated by the fact consumers. The advent of electronic computing and instant communication have caused those who do use facts to view them as straightforward and trivial. Facts are now available in large quantities and often for free. They seem to be at our fingertips – or better still, at the fingertips of our number-crunching research assistants. They can be consumed as is.

The facts, though, are neither irrelevant nor trivial. They are, of course, always problematic: their very rigidity attests to the dogma from which they emerge, while their definitiveness marks a closure to alternatives. But we can't do without them. To change means to negate, and to negate requires that we know what to negate. Without facts, we can never know the world, at least not scientifically. And without a critical dialogue between theories and facts, we cannot hope to change the world, at least not for the better.

Let's illustrate these basic points by going back to our student years, when we were just beginning our research in Israel in the early 1980s. We were interested in Israel in part because we were Israelis, but mostly because we found it highly perplexing.

On the face of it, the country was mired in a serious crisis. There was severe stagflation, or inflation in the midst of stagnation: price increases approached 400 per cent a year, while economic growth was low and unemployment rising. And that was just for starters. Israel's military conflict with its Arab neighbours and occupied Palestinian population seemed endless, and the military budget soared to absorb nearly one-third of the country's GDP. The foreign debt, too, was rising, and the country was growing ever more dependent on the United States. Last but not least, there was a political legitimation crisis. In 1977, the right-wing Likud bloc unseated the long-ruling Labour coalition. This defeat, which Israeli public-opinion makers branded 'the earthquake', signalled the end of the ancient Zionist regime of social democracy, the rise of the radical right and the emergence of a Holy Land brand of religio-neoliberalism.

And yet – and here we are getting to the perplexing part – despite this multi-faceted crisis, the stock market was booming and large Israeli corporations seemed to be flourishing as

[3] Some of the more enlightening works on these issues are offered by Herbert Marcuse (1954, 1964) and Cornelius Castoriadis (1987, 1988, 1991).

never before. They earned huge profits – all while the rest of the business sector and the underlying population were falling under.

To us, this duality of big-business prosperity in the midst of a macroeconomic and political crisis seemed highly anomalous. How could there be accumulation *despite* the crisis? Indeed, was it possible for accumulation to occur *through* crisis?

It should be mentioned that most Israelis pundits didn't consider this situation anomalous. Not in the least. Walking the earth with their eyes wide shut, they took 'economics', 'politics' and 'security' to be distinct realities, boxed in their own disciplinary boundaries and obeying their own separate logics. For us, though, these realities appeared enfolded in each other, and it was *this very enfoldment*, we thought, that needed to be researched and theorized. We wanted to explain how economics and politics were intertwined, how the micro and the macro connected, how the local was embedded in the regional and global.

Our pursuit was particularly influenced by the innovative studies of the Monopoly Capital School led by Michal Kalecki (1971, 1972), Joseph Steindl (1945, 1952), Shigeto Tsuru (1956), Paul Baran and Paul Sweezy (1966) and Harry Magdoff (1969), among others. The arguments of this school, which germinated in the 1930s and 1940s and received their final form during the 1960s, were articulated mostly with the United States in mind, and they were set against the bellicose backdrop of Vietnam and the return of stagnation after a long stretch of prosperity. Their theoretical underpinnings, though, were general enough, and they seemed highly relevant to Israel.

According to the theorists of Monopoly Capital, the gradual shift of capitalism from competitive to oligopolistic structures creates a persistent tendency toward inflation on the one hand and cost cutting on the other; this tendency causes the capitalist surplus share of national income to rise; and this rise, if it is not 'offset' in some way, creates deficient demand and therefore stagnation in the midst of inflation – i.e., stagflation. The capitalist solution to this tendency, the Monopoly Capital School suggested, was to 'absorb' the rising surplus by wasteful spending, particularly on finance and the military.

This logic seemed highly pertinent to Israel – a country with an increasingly concentrated business sector that experienced both a financial boom and large military spending, and that, in addition, wasted plenty on settlements and religious institutions. And given this apparent fit, we thought, perhaps naively, that we could 'test' it on Israel.

But that proved easier said than done.

Leonard Cohen has a song called 'Everybody Knows'. It's an apt way to describe how most social scientists see the world. Nowadays, everybody knows about 'shock therapy' and 'disaster capitalism'; everybody knows that crisis 'enriches the rich' and that the fortunes of

the Top 1% always continue to grow; and most importantly, everybody knows that 'distribution matters' – that inequality undermines growth, wellbeing and democracy. Somehow, all of these claims have suddenly become self-evident 'facts', things that the experts have (retroactively) known all along.[4] But in Israel of the early 1980s, nobody knew. Nobody knew because the facts themselves didn't exist. And the facts didn't exist largely because nobody had any interest in excavating and researching, let alone negating, them.

In his introduction to Galileo's seventeenth-century book, *Dialogue Concerning the Chief Two World Systems*, Albert Einstein wrote that 'There is no empirical method without speculative concepts and systems' – but also that 'there is no speculative thinking whose concepts do not reveal, on closer investigation, the empirical methods from which they stem' (Einstein 1954). In other words, research has to be both deductive *and* inductive. Just as you cannot discover facts without a theoretical framework, you cannot develop theories without facts. The dialogue between theories and facts, between deduction and induction, is highly reciprocal, dialectical and creative. We probably wouldn't be grossly mistaken in saying that it is one of the key fountains of human novelty.

Now, in the early 1980s, nobody – and we mean that literally – knew the basic historical facts about the largest Israeli firms. We had spent two full months trying to collate the most elementary financial data of the large Israeli holding groups – chiefly, their overall assets, net profits, sales and owners' equity (Rowley, Bichler, and Nitzan 1988). And to our surprise, we very quickly realized that *this history did not exist*. As it turned out, no one had ever tried to piece together this puzzle. We were the first to do so.

In fact, even the raw data – i.e., a complete set of the companies' financial reports – did not exist in any one place, not even at the Central Bureau of Statistics, the Bank of Israel, the Ministry of Finance or the Office of the Tax Comptroller. Even the National Library, which, according to Israeli law, should receive two copies of every print publication in the country, didn't have more than a limited sample. In fact, the companies themselves didn't have a complete set – and these were their *own* financial reports!

In retrospect, though, this indifference is perhaps not that surprising. During the 1980s, most Israel academics subscribed to the statist dogma, and especially to the notion that, until then, Israel had been a socialist society. With this dogmatic fixation, they took it for granted that the large firms were no more than a sideshow and therefore merited little attention. The indifference of capitalists is also understandable, though for a different reason: the universal goal of capitalist investment is future profit; that goal conditions the servants of capital to look forward, not backward; and since the past cannot generate future profit, capitalists

[4] Every new truth, goes the saying, passes through three stages. In the beginning the experts ridicule it as *nonsense*. Then they dismiss it as *trivial*. And in the end we learn that they *said it all along*. Different versions of this claim were made by Arthur Schopenhauer, Arthur C. Clarke and Leo Szilard, among others.

generally show little interest in history, including their own. So all in all, nobody cared, and that indifference meant that there were no corporate facts and therefore nothing to theorize. While, for the lay person, the large holding companies were obviously everywhere – as employers, suppliers, bankers, entertainers and what not – for the pundits, these companies were practically nowhere.

We didn't share this conventional view. On the contrary. We thought that the large corporations were crucial, and we were perplexed that no one else thought likewise. So we laboured for two months to excavate, decipher and organize the obscure facts. Note that this was the 1980s, before the internet and readily accessible computerized data, so everything had to be done manually.[5] We went from office to office, from library to library and from archive to archive, collating the printed reports, one by one, from wherever we could find them. We read the numerous footnotes and small print and tried to reconcile endless inconsistencies and numerous revisions (when annual inflation runs at hundreds of per cent, financial accounts are very frequently and repeatedly 'restated'). Eventually, we were able to draw up an almost complete statistical picture of what we subsequently identified as Israel's *dominant capital* (Bichler 1986, 1991).[6] And it was only then that we began to realise why it was so convenient to keep this capitalist entity safely in the shadow.

Dominant Capital and Differential Accumulation.

Now, what do we mean by 'dominant capital'? From the very start, this concept was fundamentally different from prevailing perceptions. It wasn't a productive-economic category; it wasn't a political entity; and it had nothing to do with S&M. As we saw it, dominant capital was the epicentre of the modern political economy. It was the explicate appearance of contemporary capital at large. We called this group 'dominant capital' because it was totalizing. Dominant capital forced itself on and constantly transformed everything else. It dominated not only the narrow domain that social scientists identify as the 'economy', but the entire society.

Initially, this totalizing view was rather fuzzy. But one thing was clear to us from the very beginning: in order to analyse dominant capital, we had to think of accumulation in terms that were very different from those used by both liberals and Marxists. We had to think about it not as a utilitarian process, and not even as a technological or labour process, but rather as a *power* process. This wasn't yet 'capital *as* power'; that figurative identity would only emerge later. But it already flickered in the back of our minds.

[5] McGill University received its first two IBM personal computers in 1984, and Nitzan took the first PC course offered there in order to leverage the research autonomy offered by this new invention.

[6] The 'almost complete' is important. There were a few years for which we could not find profit numbers for one of the firms, so these data points had to be interpolated. Later on, our entire data set was lifted by a respected Israeli professor who claimed to have collected it himself from 'company reports'. Little did the plagiarist know that his so-called 'company report' data contained our own interpolations, and that these well-hidden time bombs could be detonated at will. . . .

This shift of emphasis toward power – and the focus on the new entity of dominant capital – meant that we needed a new unit. The conventional view of capital is economic and therefore absolute. Wedded to production and consumption, capital is counted in stand-alone units, be they neoclassical 'utils' or Marxist 'SNALT' (socially necessary abstract labour time). But if we think of capital not in terms of consumption and production, but of power, we need to change our units; we need to think not of absolute accumulation, but of *differential* accumulation.

So here we have the embryo of the twin concepts of dominant capital and differential accumulation. (1) In order to investigate the co-evolution of capital accumulation and ruling-class formation, we need to focus on the dominant capital groups at the centre of the process along with the state organs in which these groups are embedded and with which they are intertwined. And (2) the principal method of this investigation is fundamentally relative; it requires that we focus not on absolute growth and wellbeing, but on differential distribution and redistribution. (Readers familiar with our work might be able to see here the beginning of our shift from a Newtonian to a Leibnitzian space, from entities *in* space to entities that *define* their space – though, of course, the full significance of this shift would become clear to us only much later.)

The twin concepts of dominant capital and differential accumulation ended up shaping our research for years to come. Among other things, they led us to (1) question the accepted duality of politics and economics; (2) rethink the common economic separation between the real and the nominal; (3) revisit the conventional notion that accumulation depends on growth and price stability and offer in its stead a theory that stresses mergers and acquisition and stagflation; (4) rethink the very term 'capital' and formulate our own notions of 'capital as power' and the 'capitalist mode of power'; (5) ponder the inherent limits, or 'asymptotes', of this mode of power (and of any mode of power, for that matter); and (6) question the conventional methods of doing social research more generally. The remainder of this part of the paper fleshes out the context in which these questions and ideas emerged and developed, beginning with politics and economics.

Politics and Economics

It was obvious to us from the very start that Israel's dominant capital was deeply involved in the country's military conflicts – both in wars with surrounding countries and in internal strife with the Palestinians. It was involved insofar as the owners and officers of its corporate holding groups were intertwined – through kinship, administrative, military and ownership ties – with the rest of the country's ruling class, or what C. Wright Mills called 'the power elite' (1956); it was involved in setting up policies; and most importantly, it was involved in receiving the bulk of the domestic military budget and controlling the country's military exports.

Now, considered on their own, these distinct forms of involvement were difficult to integrate. We could certainly articulate and narrate their historical details. We could even patch them together into a single collage. But we could not bring them to a common denominator, so to speak. This limitation, though, was removed by our newly constructed dataset. Armed with the actual financial history of dominant capital, we were finally able to examine the various facets of its involvement in relation to the thing that matter the most – capital accumulation.

And what we found jumped out from the page: the profit share of dominant capital in national income was positively and tightly correlated with the proportion of domestic military spending and arms exports in GDP. In other words, dominant capital was redistributing income in its favour as the GDP shares of military spending and arms exports rose, and losing differentially when they fell.

The fact that Israeli military expenditures and arms exports boosted the *differential* accumulation of dominant capital was totally new – nobody had ever made this point before, let alone demonstrated it – and it was certainly important in its own right. But it also raised a far broader question: if differential accumulation by dominant capital was so intertwined with the foreign and domestic politics of the country – via military spending and arms exports, but also through almost every other realm of society, from monetary policy, taxation and subsidies, to the law and religion, to communication and education – could we still think of capital as an 'economic entity' separate from the so-called 'political sphere'? (Bichler 1986, 1991; Bichler and Nitzan 1996a).

It struck us that if every dollar of dominant capital profit reflected and represented what is normally understood as 'politics', then the conventional bifurcation between economics and politics – and the notion that capital belongs to the former and state to the latter – prevented us from ever understanding the true nature of accumulation. Accumulation, we started to realize, was not a narrow economic process, but a totalizing metamorphosis. It wasn't simply about making capitalists rich, workers productive and the economy grow, but about transforming the entire society. To use the terminology of Bohm and Peat, it was the *generative* order of capitalist society at large (Bohm 1980; Bohm and Peat 1987).

Mergers and Acquisitions

The breakdown of the politics-economics duality is evident when we examine the way corporations expand. This was one of the foci of our first working paper as students, written jointly with Nitzan's thesis supervisor, J.C.R. Rowley (Rowley, Bichler, and Nitzan 1988). The article examined the evolution of corporate concentration in Israel, comparing it to developments in the United States. It showed that, relative to their country's average, the large Israeli holding groups in 1962 were roughly 15 times larger than their U.S. counterparts, and that by 1982, a mere 20 years later, that number had already risen eightfold, to 125!

This type of differential growth rarely if ever happens through 'greenfield' investment (which creates new capacity). It almost always takes place through mergers and acquisitions, or M&A (which alter ownership). This is what happened in Israel, the United States and practically everywhere else. But if that is indeed the case, why do economists, Marxist as well as neoclassical, insist on ignoring M&A and glorifying greenfield growth?

The key reason is that most economists don't consider M&A an 'economic' activity to start with. M&A change the ownership of firms, but they have little or nothing to do with 'real' growth. In fact, more often than not they *undermine* growth, particularly when accompanied by 'rationalization', 'streamlining' and 'cutbacks'.

In our view, though, these considerations do not make M&A irrelevant to accumulation. On the contrary. M&A are political to their core: they creorder capitalist power, and that creordering is in fact a key engine of accumulation. One of the central features of M&A is that they drive jurisdictional integration: they serve to integrate individual industries, then sectors, then the national envelope and, eventually, the capitalist world as a whole (Nitzan 2001) – witness the recent signing of the Trans Pacific Partnership, the latest in a series of trade-cum-investment agreements whose cumulative effect is to subject the entire world to the universal logic of capitalized power. All in all, M&A are one of the main movers of the capitalist megamachine, fuelling its ongoing expansion and global consolidation.[7]

Inflation and Stagflation

But mergers are just one of side of the story. The other side is stagflation. As we have already mentioned, during the early 1980s Israel experienced a toxic mix of stagnation and inflation. Like mergers, this phenomenon too was global in nature – but with annual inflation approaching 400 per cent, the Israeli case was certainly one of the more pronounced. Now, for us the striking thing was that this stagflation, while wreaking havoc with workers and small businesses, had *not* undermined dominant capital. On the contrary, it boosted its performance both absolutely and relatively. Using our newly constructed database, we showed that Israeli stagflation, just like military spending and arms exports, was correlated positively and tightly with the differential profit and capitalization of dominant capital (Nitzan 1986; Bichler 1991).

In our minds, this finding threatened to pull the rug out from under the entire edifice of economics. To see what was at stake here, we need to go back to the 'classical dichotomy' articulated by the British philosopher David Hume and since then accepted by most, if not all, economists. According to this dichotomy, economic life can be separated into two spheres: real and nominal. The real sphere is where tangible stuff and intangible services get

[7] The term 'megamachine' was invented by Lewis Mumford in *The Myth of the Machine* (1967, 1970) to denote the mechanized social structure that was first constructed in the ancient river deltas and later resurrected in the bureaucratic nation state. This concept is projected onto capitalism in our book *Capital as Power* (Nitzan and Bichler 2009a).

produced, consumed and accumulated. This is the realm of utility and productivity, of exploitation and conflict, of wellbeing and technical change. The nominal sphere, by contrast, is nothing more than a giant mirror. This is the realm of prices, money and finance. Unlike their real counterparts, nominal entities are symbolic signifiers: the universe they populate simply reflects what happens in the real world.

And here we come to the key point. According to the classical dichotomy, money, being a mere mirror of reality, doesn't really matter. And since money doesn't matter, inflation – i.e., the general rise in money prices – is entirely 'neutral': it has no systematic effect on the so-called real economy.

But that is not at all what we had found in our research. According to our data, Israeli inflation was not neutral in the least. To recap, just like military spending and arms exports, it was positively and tightly correlated with the differential profit and accumulation of dominant capital. Now, Milton Friedman had famously decreed that 'inflation is always and everywhere a monetary phenomenon'. But what we had discovered, first in Israel and then in other countries, was that inflation is always and everywhere a *redistributional* phenomenon.

Moreover, and contrary to received doctrine, we realized that inflation tends to come not with growth, but with stagnation; in other words, it appear as stagflation. Economists have managed to convince themselves that this combination is anomalous, but convictions alone rarely change the facts. Stagflation is *not* a historical exception. If anything, it is the historical rule.

Eventually, it dawned on us that the real story of inflation was the exact opposite of that told by the textbooks (Nitzan 1992). First, inflation is never neutral; on the contrary, it is always redistributional. And because it is redistributional, we should speak not of inflation in general, but of *differential inflation* in particular. Second, inflationary redistribution is mediated, regulated and enforced not by growth, but through sabotage, particularly stagnation and unemployment.

But not just by unemployment.

Given the crucial role that conflict, military spending and war played in the political economy of Israel, we expanded our vista to examine Middle East conflicts more generally. Our research focused on what we called 'energy conflicts', and specifically on the ways in which these conflicts related to the differential performance of the world's 'Weapondollar-

Petrodollar Coalition', comprising the leading armament firms ('Arma Core'), oil companies ('Petro Core') and oil-producing countries.[8]

The general patterns emerging from this research were remarkable, by any standards. Energy conflicts, it turns out, generate differential oil-price inflation – i.e. oil prices rising much faster than the general level of inflation – and this differential inflation boosts the differential profitability of the leading oil companies and oil-producing countries. In other words, differential inflation drives differential accumulation, and this process is energized by the most destructive sabotage of all – war. And that is just one side of the process. The other side is that higher oil revenues flowing into the region are partly used to acquire weapons, and that buying spree has two main consequences: it boosts the differential earnings of the military contractors while simultaneously enabling countries in the regions to stockpile the hardware and ammunition needed to fuel the next round of energy conflicts.

The correlations that make up this circular process are rather stunning. They show that, since the late 1960s (1) every energy conflict has been preceded by the oil companies falling behind the average – in other words, the trigger for these conflicts, at least statistically, is differential *de*cumulation; (2) every energy conflict has been followed by the oil companies beating the average – in other words, the capitalized power of the oil companies has increased tremendously due to these conflicts; and (3) with only one exception, the oil companies have never managed to beat the average without an energy conflict – in other words, the capitalized power of the oil companies has come to depend on these conflicts; i.e., to rely not on production and growth, but on the sabotage of war-driven differential stagflation.[9]

Real and Nominal

The crucial role of inflation in accumulation led us to question the very meaning of 'reality' in capitalism: what exactly constitutes this 'reality' and how should it be examined?

Economists claim a monopoly over the answer. The capitalist reality, they say (or imply) is economic, and economic reality is not only objectively given, but readily measureable: it can be quantified using its own elementary particles – namely, neoclassical utils or Marxist SNALT. According to this view, everything that has to do with production and consumption, productivity, wellbeing, accumulation and exploitation can be quantified in so-called *real terms*.

[8] See Bichler, Nitzan and Rowley (1989), Nitzan, Rowley and Bichler (1989), Rowley, Bichler and Nitzan (1989), Bichler, Rowley and Nitzan (1989), Nitzan and Bichler (1995), Bichler and Nitzan (1996b), Nitzan and Bichler (2002: Ch. 5), Bichler and Nitzan (2004) and Nitzan and Bichler (2006).

[9] As noted in footnote 2, our most recent work on the subject suggests that, after half a century, these historical regularities might no longer hold, and that the 'energy-conflict model' might need to be reexamined (Bichler and Nitzan 2015c).

Unfortunately, this is an empty boast. In practice, neither neoclassicists nor Marxists know how to quantify their reality, and for the simplest of reasons: they cannot measure the elementary particles that this reality is supposedly made of. The statisticians, of course, pretend to be doing so as a matter of course. They measure the 'real' stocks and flows of the economy, quantify 'real' GDP, 'real' consumption and 'real' investment and estimate the magnitude of 'real' wealth and the amount of 'technology' – and they usually do it all without a second thought. But in the end, the 'real' numbers they produce have little or nothing to do with the so-called 'real economy'.

To follow their theory to the letter, economists would need to measure real quantities *directly* and then show that these real quantities are proportionate to – and therefore account for, explain and justify – nominal prices. But that is *not* what they do. Instead, they go in reverse. They start from observable prices and then assume that those prices are proportionate to their underlying util or SNALT quantities – i.e., to the very quantities that supposedly determine prices in the first place! And since utils and SNALT can never be directly measured to start with, we end up with the 'emperor's new clothes' – an irrefutable fiction dressed as reality. In this sense, political economy, both Marxist and neoclassical, is an edifice suspended in mid-air (Nitzan 1989; Nitzan and Bichler 2009a: Chs. 5-8; Bichler and Nitzan 2015a).

Embarrassingly, then, we find ourselves back where we started: capitalism is thoroughly quantified through prices – indeed, that is one of its key hallmarks – so what is the meaning of this quantification? If capitalist prices – and specifically the price of capital – correspond to neither utils nor SNALT, what *do* they represent? And given that capital is the heart of the capitalist reality, what constitutes that reality?

During the 1980s, we didn't yet have a well-articulated answer to this question, but several things already seemed pretty clear: (1) the price of capital is meaningful in relation to other prices; i.e., it is a differential entity; (2) differential relations in capitalism are relations of power; and therefore (3) the differential price of capital is the quantitative manifestation of power. In other words, *the quantitative reality of capital is primarily a reality of power*.

The Elementary Particles of Capitalized Power

These interrelated inquiries led us to conclude that the study of capitalism has to be totally reconceived. First, capitalism might be better understood not as a mode of production and consumption, but as a *mode of power*. Second, capital itself can be more fruitfully thought of not as an absolute productive entity, but as *differential capitalization*, a universal symbolic ritual that converts and reduces qualitatively different power relationships into a singular quantity. And third, this quality-to-quantity conversion shows that capital as power possesses not two quantities, but one, and that this quantity is *financial and only financial* (Bichler and Nitzan 2006, 2009).

Now, how could we use the way in which differential capitalization converts qualities to quantities to understand the power and limits of capital? To answer this question, we need to go back to the Sumerian invention of the 'building block'. Every science needs what the Greek philosopher Democritus called 'atoms' and contemporary physicists refer to more generally as 'elementary particles': it needs fundamental quantities that everything else is made of. As noted, Marxists, who emphasize production, use units of SNALT, while the neoclassicists, who emphasize wellbeing, use utils. By contrast, CasP researchers, emphasizing power, use the components of differential capitalization.

So what are these components? The capitalization ritual consists of discounting risk-adjusted expected future earnings to their present value. The reduction involves four elementary particles: (1) future earnings, (2) investors' hype regarding these earnings, (3) risk perceptions associated with earnings estimates and (4) the normal rate of return. When measured differentially, each elementary particle reflects a given dimension of capitalist power. And, taken together, they represent the way in which the constant creordering of capitalism gets quantified.

For those interested in the power underpinnings of capitalism, this viewpoint offers three main advantages: (1) it deals with power not as an indirect, outside 'influence', but as something that directly *constitutes* capital; (2) it encompasses not only the so-called economic aspects of power, but *every* power relation that bears on capitalization; and (3) it deals not only with the driving forces of capitalists and corporations, but also with the *broader relations* that creorder the capitalist mode of power more generally. From this perspective, the way to unpack the logic of capital as power is to start from its elementary particles, examine their origins and development and analyse their interactions and mutual enfoldments theoretically, historically and empirically.

The Asymptotes of Power

This unpacking is crucial when focusing on the limits of capitalized power. The term 'capital as power' evokes notions of omnipotence, the view that as capitalized power grows it becomes increasingly irresistible and eventually unbeatable. But does it? If anything, history suggests the very opposite: historical regimes, or modes of power in our language, once they reach their apex, tend to whither or even collapse. And if this has happened to other modes of power, why not to capitalism?

So increasingly, we started to ponder the asymptotes of capitalized power: what are the limits to the potency of capital, and what might cause this potency to weaken or even crumble?

We can approach this question at two levels – logically and socio-historically. Logically, capitalized power is inherently bounded. Since capitalized power is relative and therefore

distributional, it follows that it has an absolute, analytical boundary. No capitalist or group of capitalists can ever own *more* than 100 per cent of all that there is to own. This is the mathematical asymptote – or limit – of capitalized power.

But can this asymptote ever be reached in practice? In our view, the answer is no. As a differential relationship, power is meaningful only against resistance to power; indeed, being inherently dialectical, social power tends to *create* its own resistance (a point eloquently made by Martin 2010 and to which we return below). Power, by its very nature, generates internal contradictions that constantly transcend and transform all that exists. This auto-creordering means that, although it constantly strives to do so, capitalized power can never encompass the whole of society. And this inability to control everything implies that capitalized power is bound to hit its socio-historical asymptotes well before it reaches its logical limits.

The crucial questions, therefore, concern the *specific* socio-historical limitations of capitalized power. What are the counterforces that capitalized power gives rise to? How do these counterforces limit the further expansion of capitalized power? And can they arrest the upward trajectory of capitalized power or even reverse it altogether?

We have done some preliminary work on this subject by examining the long-term assent of dominant capital in the United States (Bichler and Nitzan 2012a). Based on this research, we have suggested, however tentatively, that this ascent might have pushed the U.S. capitalist mode of power pretty close to its practical asymptotes, and that further increases in capitalized power might transmute the regime into something totally different. But, again, this is just one study of one country; we need a much broader vista to make this analysis more robust and meaningful.[10]

Science and Church

Being contrarian can be elating. 'There is no joy more intense than that of coming upon a fact that cannot be understood in terms of currently accepted ideas', writes astrophysicist and astronomer Cecilia Payne in her autobiography (1984), and the most important step toward finding such facts is asking the right questions. Don't be shy, and don't be intimidated by know-all experts. Go to the root. More often than not, it is the simplest, seemingly naïve,

[10] The notion of power asymptotes is implicit in 'Going Global: Differential Accumulation and the Great U-turn in South Africa and Israel' (Nitzan and Bichler 2001), in which we examine the domestic limits on the expansion of dominant capital in these two countries, and how approaching those limits during the late 1980s and early 1990s affected the transition away from Apartheid in the case of South Africa and toward a political settlement with the Palestinians in the case of Israel. Another paper, 'No Way Out: Crime, Punishment and the Limits to Power' (Bichler and Nitzan 2014a), studies the importance of rising US incarceration rates for differential accumulation, and how this relationship may limit the future ability of capitalists to further redistribute income and assets in their favour.

questions that lead to breakthroughs, to facts that 'cannot be understood in terms of currently accepted ideas'.

Of course, it is not easy to ask simple questions, let alone answer them – and that holds true even if you are as curious, eager and willing as Cecilia Payne was. Payne was the first to discover the abundance of hydrogen and helium in stars. Her discovery, published in her 1925 PhD thesis, suggested that Einstein's famous equation, $E=MC^2$, could be universally applied. But that discovery also pitted her against the prevailing dogma that stars consisted mostly of iron, and that contestation proved too much for her thesis examiners to stomach. Replaying Pope Urban VIII, they approved her dissertation only after she repudiated her own findings, stating that 'the enormous abundance [of hydrogen] . . . is almost certainly not real' (Bodanis 2000).

Science doesn't operate in a vacuum. Its creativity faces huge opposition from the conservative forces of society, being constantly restricted, constrained and sabotaged by the state, organized religion, capitalists and, of course, the academic church. Suffocated by academia, science ends up progressing 'one funeral at a time', as Max Planck put it. And that means you have to be not only creative, but also quick on your feet; to act swiftly before the doors that are opened up by today's innovators are locked when they become tomorrow's gatekeepers.

To our chagrin, we have experienced the heavy hand of these gatekeepers from day one – and we still do. The academics had put a contract on our student work, literally. Bichler's PhD, written at the Hebrew University on *The Political Economy of Military Spending in Israel* (Bichler 1991), was sent to an external referee with explicit instructions to fail it, while Nitzan's MA dissertation at McGill on *Holding Groups and the Israeli Economy* (Nitzan 1986) was deliberately given to a Zionist reviewer to ensure that it met a similar fate. Although both plots were eventually foiled, the victories were short-lived. Our papers and book chapters have been repeatedly rejected – including by heterodox journals – on various pretexts ranging from the petty to the bizarre.[11] Our research has often been lifted and plagiarized by distinguished and less distinguished academics, from California and Toronto to London and Jerusalem (Nitzan and Bichler 2005; Bichler and Nitzan 2014b). And we found it hard if not impossible to secure university jobs – Nitzan landed at York University by a historical fluke, whereas Bichler, who has had the dubious pleasure of being blacklisted by every university in Israel, has never held a permanent academic job. The list goes on.

[11] The *American Journal of Sociology* (AJS), for example, refused our submission on methodological and empirical grounds, noting that we should have followed the template offered by a certain professor X, who had supposedly written a seminal text on that very subject. The only problem was that the innovative text we were called to emulate plagiarized our raw data, research methods and, indeed, the very questions we were the first to raise. . . . Another rejection came retroactively. The unlucky piece, a refereed chapter in an edited SUNY Press volume, was already on its way to the printer when it caught the attention of one of the publisher's trustees. The watchful gatekeeper nearly fell off his chair reading it. Furious, he threatened to cancel the entire book, and the obedient editor quickly dumped the thorny chapter.

But the church, no matter how potent, is not omnipotent. Indeed, the very fact that it is so aggressive proves that there is resistance; that the Greek triangle of autonomy-philosophy-science is always looming and that the rulers are compelled to oppress it. The adventurous-creative potential of this Greek triangle, like the energy contained in the atom, is everywhere. The only question is how to unleash it.

II. PRESENT

Cooperation and Dialogue

Creativity is fuelled by cooperation and dialogue – dialogue with our predecessors, with ourselves, with others around us. The Nguni Bantu word 'ubuntu' means 'I'm a human being through you', that my humanity – including my creativity – derives from my relationship and cooperation with other human beings.

The importance of cooperation for creativity can be illustrated with two examples from the history of mathematics. One of the most cooperative thinkers ever was the Hungarian number theorist Paul Erdös (Hoffman 1998). Erdös published nearly 1,500 papers, almost all jointly-authored. The Erdös Number Project maps these linkages. In this project, Erdös 0 is Erdös himself, Erdös 1 is someone who published with Erdös, Erdös 2 is someone who published with someone who published with Erdös and so on. Einstein was Erdös 2. The largest Erdös number is 13.

Now, Erdös was the arch-co-operator. The other extreme is Andrew Wiles, the number theorists who managed to prove Fermat's Last Theorem, the most stubborn mathematical riddle ever (Singh 1997). The theorem remained unproven for 358 years, till Wiles managed to crack it. The key thing for us here is that Wiles tried to solve it in total isolation. He worked on it alone, for seven years, during which time he told nobody besides his wife. Erdös didn't like Wiles' proof. It was too long and too complicated, he said. And in his opinion, it was long and complicated because Wiles didn't cooperate. But, then, that wasn't entirely true. Even the lone Wiles didn't work totally on his own: although deliberately detached from his fellow mathematicians, past and present, he couldn't help but draw and rely on their work.

It is probably not an exaggeration to say that, if we have achieved something, it is because we have cooperated. Had each of us worked on his own, we would have created little or nothing. Cooperation and dialogue have helped us tease out ideas that otherwise would have remained buried; formulate questions that otherwise would have remained unasked; engage in research that otherwise would have seemed too daunting; dismiss conclusions that otherwise would have seemed tempting; and, last but not least, withstand the attacks and sabotage of the church that otherwise would have been too difficult to bear.

But two people are not enough for the task. They don't constitute a critical mass. For new ideas to develop, we need a growing research dialogue. That is why when activists ask us, 'OK, so what do you recommend we do?' our answer is simple: establish ten autonomous research institutes around the world, and you will have taken the first step toward changing it.

There is enormous pent-up autonomous energy in the world, but most of it is undirected and therefore wasted. In order to change the world, you need to know what kind of world you want; in order to know what you want, you need to know what exists; and in order to know what exists, you need *radical*, *autonomous* – and therefore *non-academic* – *re*-search.

To see why, just think of the pro-business academic template created by John D. Rockefeller, who founded the University of Chicago; think of the thousands of subsidized, mainstream research institutes that apply this template all around the world; think of the millions of professors and experts produced by this process and the rigid dogma they perpetuate and defend. Now, add to these the devastation spread by anti-science postism and you'll quickly realize the crucial importance of building an *alternative* research infrastructure – an antithesis to the dogmatic, subservient academia.

The New Generation

We don't have this alternative infrastructure – at least not yet. But we have made a small step in that direction by creating the *capitalaspower.com* website – a virtual locus for open dialogue between people interested in and engaged with the concept of capital as power.[12]

For the moment, the main participants in this dialogue are independent researchers, graduate students, postdoctoral fellows and young professors. It is probably worth noting that many of these participants started their CasP research with little or no background in the subject. Most had little or no grounding in economics, and none had ever engaged in actual research. This backdrop is remarkable because, in just a few years, many of these researchers have become global experts on their subject and, more importantly, produced path-breaking research and very novel ideas. And they are just starting.

In what follows, we review some of the subjects these researchers deal with, the questions they ask and the conclusions they have reached. Most of their works are available for free under the CreativeCommons licence from *capitalaspower.com* and *The Bichler & Nitzan Archives*.

[12] The site has been designed, created and managed by Joseph Baines, D.T. Cochrane, Sandy Hager, James McMahon, Mladen Ostojić and Ilirjan Shehu. The editors invite reposted publications, solicit contributions to their Working Papers on Capital as Power series and welcome participation in the site's blog and forum.

Symbolism

A fascinating conceptual dissection of CasP is offered by the independent researcher Ulf Martin. In his unpublished paper 'Rational Control and the Magma of Reality' (2010), Martin differentiates between three types of symbols: (1) magical (the symbols and the 'reality' they symbolize are the *same*); (2) ontological (the symbols are *distinct* from the 'reality' they symbolize); and (3) operational (the symbols *create/render* the very 'reality' they symbolize). Capital, he then argues, is an operational symbol: it creates and renders capitalism.

According to Martin, CasP's operational symbolism is deeply dialectical. To creorder differential capitalization is to impose a calculable order. But the very attempt to impose a calculable order *necessarily* gives rise to conflictual, contradictory and possibly *non*-calculable relations. In other words, capitalist rationality begets capitalist irrationality: trying to increase the quantity of differential capitalized power ends up generating new social relations that can never be fully rationalized and therefore fully capitalized, and this inability serves to drive capital even further in its attempt to calculate its own incalculable creation.

Country studies

Two former PhD students at York's Department of Political Science devoted their dissertations to country studies, similar to what we had done on Israel. Hyeng-Joon Park, currently a researcher fellow at Sogang University in Seoul, wrote his PhD on *Dominant Capital and the Transformation of Korean Capitalism from the Cold War to Globalization* (Park 2013b), while Jordan Brennan, currently an economist with the trade union UNIFOR, wrote his thesis on *The Business of Power and Canadian Multinationals in the Postwar Era* (Brennan 2014).

Their works offer the first CasP examinations of two mid-sized capitalist countries. Both take a long, historical perspective, exploring the growth of dominant capital, its alternating regimes of differential accumulation – particularly stagflation and amalgamation – and the changing role of governments and globalization in that process. In doing so, both theses develop new ideas and insights that enrich the CasP approach, suggest new lines of inquiry and reach novel conclusions (see also Brennan 2012; Park 2013a, 2015).

The Depth and Breadth of the Global Food Regime

Joseph Baines, a former PhD student at York's Department of Political Science and currently a postdoctoral fellow at the London School of Economics, wrote his dissertation on *Price and Income Dynamics in the Agri-Food System: A Disaggregate Perspective* (Baines 2015b).

One of his most stunning charts shows the differential profits of the leading grain traders – i.e., the extent to which they beat the average of the top 500 U.S. firms – and demonstrates that these differential profits have been positively and tightly correlated with the extent of world hunger: the greater the hunger, the greater the differential returns (Figure 2.9. p 62).

Baines' central argument is that differential stagflation constitutes the pivotal leverage of differential accumulation in this sector, and that focusing on this process can help explain some of the important transformations affecting the world of food. Using this approach, he explains the recent slowdown of Walmart as it approaches its differential asymptotes; debunks the 'supermarket supremacy thesis', according to which the large retail chains hold the commanding height of the food regime; shows how differential stagflation drives the wasteful albeit highly profitable sacrifice of food for biofuel; and identifies the distributional coalitions that gain and lose from agricultural price volatility and how these coalitions align and realign to shape U.S. government regulation of financial derivatives (Baines 2014b, 2014a; 2015a; see also CasP Dialogue 2015:01 on Baines' work).

Converting Quality to Quantity

Another former PhD student, D.T. Cochrane, examines De Beers, the global diamond cartel. His PhD dissertation, written at the York Graduate Program in Social and Political Thought, is titled *What's Love Got to Do with It? Diamonds and the Accumulation of De Beers, 1935-55* (Cochrane 2015). The thesis raises a question that is simple to ask but difficult to answer: how are the qualitatively different power relations that define De Beers being reduced and discounted to a single quantity represented by the company's differential capitalization?

The anchor of the thesis is the period of the late 1930s and early 1940s. During the early part of the twentieth century, De Beers suffered sustained differential decumulation (trailing the average). That relative decline, though, ended in the late 1930s, and by the early 1940s differential accumulation had turned firmly positive. What caused this V-shaped reversal? Economists and students of business, Cochrane notes, answer such questions by looking at production, costs and prices – but rarely if ever do they consider the *power* relations behind these 'economic' quantities. So what were the power underpinnings of De Beers' V-turn, he asks? His thesis looks at four: (1) the ways in which De Beers had been able to conceive, create and impose an association between marriage and diamonds; (2) the ways in which the Second World War impacted the use of industrial diamonds; (3) the manner in which De Beers navigated its relations with the US and UK governments; and (4) the role that family ownership played in the De Beers saga. These are all qualitatively different relations of power, yet they are all reduced to a single number, and the question Cochrane is grappling with is how such quality-to-quantity reductions are being achieved.

Converting Energy to Hierarchy

Blair Fix, who is currently researching his PhD at York's Faculty of Environmental Studies, deals with another conversion – the transformation of physical energy into social power (Fix 2015b, 2015a). As already noted, the key problem with conventional economic growth theory is that nobody knows *what exactly is growing*. The implicit assumption is utilitarian. The economy supposedly creates 'wellbeing', so when we speak about growth, we speak about increasing wellbeing, presumably counted in utils. But as we saw, utility is *not* a universal entity, which means that it cannot be aggregated. And since without aggregation there is no way to measure *overall* growth, quantitative statements such as 'real GDP has risen by 3 per cent' lack an objective meaning.

Production does involve a measureable transformation, though – the conversion of one form of energy to another. And what Fix shows in his research is that, while the extent of this conversion has no objective connection to societal wellbeing, it has a very definite relation to social power: the greater the conversion of energy, the more hierarchical the various power structures of society become (and vice versa).

Converting Cultural Destruction to Lower Risk

A third conversion is examined by James McMahon in his PhD dissertation, *What Makes Hollywood Run? Capitalist Power, Risk and the Control of Social Creativity* (2015). The thesis, written at York's Graduate Program in Social and Political Thought, unzips the CasP logic of contemporary cinema. The basic question concerns the relationship between Hollywood's profit and capitalization. Over the past several decades, Hollywood's profit has offered nothing to write home about: it has moved more or less in tandem with the dominant capital average. Hollywood's capitalization, though, has been phenomenal, rising rapidly relative to the dominant capital average. Mathematically, this divergence means that Hollywood has manged to systematically reduce its differential risk. And the purpose of McMahon's thesis is to figure out how it has done so (see also McMahon 2013; Bichler and Nitzan 2015b).

Many of our readers are probably too young to remember, but once upon a time, specifically during the 1960s and 1970s, Hollywood managed to produce a fair number of very good films. This era is now long gone, for two key reasons. According to McMahon, (1) the big entertainment conglomerates that control Hollywood have learnt how to shape, mould, restrict and harness creativity to their capitalized ends; and (2) these same firms have also learnt how to narrow, streamline and direct the cultural expectations of the viewing public, so that it eagerly consumes whatever it is being spoon-fed. The result of this double sabotage is that large-budget blockbusters now generate highly predictable revenues; this higher predictability translates into lower differential risk; and lower differential risk means faster differential capitalization. QED.

Capitalizing Knowledge

Another important form of strategic sabotage is examined in the PhD dissertation of Marc André Gagnon, *The Nature of Capital in the Knowledge-Based Economy: The Case of the Global Pharmaceutical Industry* (2009). Gagnon, who wrote his thesis at York's Department of Political Science and is now teaching at Carleton University, focused on intellectual property rights (IPR), particularly in the global pharmaceutical business. His thesis showed that, over the past 30 years, the increasing success of dominant capital in this sector has been associated not with the increase, but with the *decline* of therapeutic innovation. The large pharmaceutical firms, shaping and harnessing the power of states to impose IPR, have managed to both restrict and appropriate common knowledge, and to translate this restriction and appropriation into a massive surge in differential profit and capitalization.

Who Owns the Public Debt?

Now, whereas intellectual property capitalizes the state indirectly, the national debt capitalizes it directly. Social scientists like to talk about the state as the 'sovereign'. But is it? The state has the power to tax, print money and redistribute income, among other prerogatives. But when you think about it more closely, a good deal of this power is owned by the state's creditors – that is, by the investors, corporations, foreign governments and global institutions that hold the national debt (consider the recent Greek debt saga and ask yourself who proved to be the *de facto* sovereign – the Greek government, or its lenders?)

Ever since its appearance in the Italian city states of the late feudal era, 'sovereign debt' has been the chief method of bonding capital and state, so it is crucial for understanding the way capitalism operates. And if bonded governments are indeed partly 'owned' by their creditors, who are those creditors?

Contrary to Leonard Cohen's song – and here we come to the surprising bit – nobody seems to know. And that is where Sandy Hager's work comes in. Hager, who completed his PhD at York's Department of Political Science and is currently a postdoctoral fellow at Harvard, wrote his dissertation on *Public Debt, Ownership and Power: The Political Economy of Distribution and Redistribution* (2013b). His thesis and follow-up publications offer the first long-term mapping of the size distribution of public-debt ownership in the United States – in general as well as within the private, corporate and foreign segments (Hager 2013a, 2014, 2015, 2016). His findings proved so novel and impressive that the *Financial Times* devoted a full article to reviewing them (Tett 2013).

Differential Taxation and the Financial Crisis

Another interesting CasP analysis was offered by Mladen Ostojić, a former MA student at York's Department of Political Science and currently a researcher at Statistics Canada. Many

experts claim that the ultimate cause of the 2007-8 financial crisis was the rapid growth of the U.S. banking sector and suggest that much of this growth was caused by government deregulation of the financial sector.

Ostojić's MA paper, titled *Differential Taxation: The Case of American Banking* (2015b), offers a fascinating insight into this deregulation (see also Ostojić 2015a). The paper shows that, since the 1980s, the net differential profits of the banks – i.e., the extent to which they were beating the average – rose systematically, and that this increase occurred *despite* the fact that the banks' differential tax rate – i.e., the ratio of their tax rate to the average tax rate – increased as well. In other words, there was a convergence of interests here: the U.S. government deregulated the banks; this deregulation brought a massive increase in pre-tax profit, absolutely as well as differentially; a growing proportion of this larger pre-tax profit went to the government in the form of higher taxes, again both absolutely and differentially; yet because the increase in the banks' pre-tax income was so large, there was enough net profit left for them to still beat the average net profit. And since both sides – the U.S. government and the banks – became increasingly addicted to this mutual gain, deregulation continued more or less unabated until the crash.

An American Empire?

Over the years, we have argued and demonstrated in various ways that the capitalist entity conventionally referred to as the 'United States' – and recently and more fashionably, the 'American Empire' – has been in long-term decline (for example, Nitzan, Rowley, and Bichler 1989; Nitzan and Bichler 2006; Francis, Bichler, and Nitzan 2009-2010; Bichler and Nitzan 2012b). However, we have also claimed, more broadly and theoretically, that if capital is power and capitalism is a mode of power, the *very category* of the 'state' needs to be reconsidered (Bichler and Nitzan 2010a; see also Section III below).

Both points have been contested by Sean Starrs, a former PhD student at York's Department of Political Science and currently faculty at City University of Hong Kong. In his research, Starrs argues that U.S. economic power hasn't declined, but globalized (Starrs 2013a, 2013b). His work is relevant to our overview here for two somewhat conflicting reasons. On the one hand, Starrs uses differential indicators to assess corporate power, so, on the face of it, his research seems intimately tied to CasP. On the other hand, though, his narrow focus on the so-called 'economic' power of capital serves to deny the very notion that capital *is* power.

Extensions, Integration and Debate

A broad attempt to debate, extend and integrate CasP research is offered by Tim Di Muzio, Editor of the *Review of Capital as Power*. Di Muzio, who completed his PhD at York's Department of Political Science and currently teaches at the University of Wollongong in Australia, is a prolific CasP writer. His works on the subject include, among others, *The*

Capitalist Mode of Power (Di Muzio 2013), *The 1% and the Rest of Us* (Di Muzio 2015a), *Carbon Capitalism* (Di Muzio 2015b), *Debt as Power* (Di Muzio and Robbins 2016) and *Energy Capitalism and World Order* (Di Muzio and Ovadia 2016), and he is currently researching the historical evolution of capitalist power.

III. FUTURE

However impressive, though, these CasP-related works are no more than a start. To argue that capitalism is not a mode of consumption and production but a broader mode of power is to make a very radical claim. And if we accept this radical claim, we must to go to the root: we need to research almost *everything*, and often to do so from scratch. Therefore, in closing, we would like to suggest seven broad directions that we think merit exploration and hope that some of you might pursue.

Trajectory One: COP-MOPs

The two most basic questions to ask are: (1) what do we mean when we say that 'capital is power'; and (2) what do we have in mind when we argue that capitalism is 'a mode of power'?

Let's start with the second question and contextualize it by thinking of Marx's materialist inversion of Hegel's idealism. History, says Marx, is a succession of distinct modes of production of which capitalism is the latest, but not the last. Capitalism, he says, emerged from and replaced earlier modes of production, mainly slavery and feudalism, and would be replaced in turn by newer modes of production, specifically socialism and communism. Note, though – and this is a key point – that for Marx a 'mode of production' refers not to the narrow realm of production, but to the *entire* social order. His argument is that the logic and development of a social order are ultimately anchored in – and therefore best understood in reference to – the reality, limits and contradictions of production.

Likewise with our own claims. In arguing that capitalism is a mode of power, we are thinking of it as the most recent of several historical modes of power. The capitalist mode of power, in other words, didn't come into the world out of nothing, but rather emerged from and replaced earlier modes of power. Now, just as with Marx's mode of production, a mode of power refers to the entire social order. Contrary to Marx, though, we view the logic and development of this order as rooted in – and therefore best understood by focusing on – not the transformations of production, but the creordering of power.

With this context in mind, we can turn to capital itself. When we argue that capital is a symbolic representation of power, we imply the question of what exactly we mean by power: what *concepts of power* underlie the capitalist mode of power, and are these concepts of power *different* from those characterizing other modes of power?

Our current research focuses on these two questions. The tentative hypothesis is that 'modes of power' and 'concepts of power' are *joint* historical entities: each mode of power is articulated by and constructed with its own, often unique concepts of power – while specific concepts of power are enfolded in the mode of power from which they emerge. This jointness means that the ancient city-states and empires of Mesopotamia and Egypt, insofar as they constituted a specific mode of power, had their own unique concepts of power; that the feudal mode of power in Europe and Japan, if we can indeed speak about it in those terms, had its own singular concepts of power; and that the capitalist mode of power, just like its predecessors, developed with its own proprietary concepts of power. We call these joint entities *COP-MOPs*, a tentative acronym for Concepts of Power–Modes of Power.

Assuming that the COP-MOP concept is a valid starting point, the next step is to characterize and understand its static and dynamic aspects. Specifically, we should try to (1) identify and describe the key COP-MOPs that have existed in history; (2) examine how each of these COP-MOPs evolved, operated and eventually gave rise to another COP-MOP; and (3) attempt to offer a tentative outline for the study of COP-MOPs more generally.

Obviously, these are big-picture, foundational questions. They cannot be answered by any single person, and they certainly cannot be answered quickly. But it is important to spell them out and try to sketch their contours. In doing so, we can help inform and shape subsidiary questions – and in turn further develop, refine and alter the contours of the COP-MOPs' topology.

Trajectory Two: The Origins of the Capitalist Mode of Power

Now, moving from modes of power in general to the capitalist mode of power in particular, we tackle the unavoidable question of origins. And when dealing with origins, we inevitably run into Aristotle's telos: what exactly do we look *for* when trying to identify the origin of the capitalist mode of power?

Marxists have put considerable effort into pinning down the transition from feudalism to capitalism.[13] Their views on this issue vary markedly, but they all share the same teleological endpoint – namely, Marx's nineteenth-century concept of capital. For Marx, capital was a market-mediated social relation in which wage labour is exploited by industrial capitalists to generate surplus value for the purpose of reinvestment in ever-expanded reproduction. And so, whatever was born during the transition from feudalism to capitalism must have contained the seeds of wage labour and industrial capital, the twin engines of exploitation and accumulation.

[13] Important contributions to this debate include Dobb (1946), Sweezy (1950), Brenner (1977, 1978a, 1978b), Hilton (1978), Meiksins Wood (1981, 1999), Aston and Philpin (1985) and Heller (2011).

But if we follow CasP rather than Marx, the teleology is radically different: the end point is no longer the nineteenth century, but the twenty-first; the capitalist seeds that lead to that end point have to contain the DNA not of industrial factories and wage labour, but of symbolic, discounted power; and the location and period when these seeds sprouted could deviate markedly from those identified by Marxists. As with anything historical, origins are crucial, so this subject is eagerly awaiting its first explorer.

Trajectory Three: Finance and the Capitalist Creorder

Perhaps the key clue in this search for origins is finance. The organizing ritual of the capitalist creorder is capitalization: the algorithm that discounts risk-adjusted expected future income to its present value. We have started to explore this ritual, both historically and analytically, but our exploration has barely scratched the surface (Nitzan and Bichler 2009a).

And here too we need to put the world on its head (or feet, depending on the perspective). There is a huge literature on finance, but virtually none of it is examined from the viewpoint of CasP. It is of course true that many people have tried, depending on their ideology, to connect or disconnect finance and power. For the most part, though, these connections and disconnections treat finance and power as two separate entities, whereas, from a CasP perspective, they should be treated as two sides of the same thing.

Perhaps the simplest way is to start from the here-and-now and ask what the financial skeleton of the current capitalist creorder is. How do the elementary particles of capitalization – i.e., future earnings, hype, risk and the normal rate of return – relate to each other, and how do their interrelations shape and reflect the key power dynamics of capitalism? These questions are phrased analytically here, but they have to be fleshed out and examined empirically and historically. To make the elementary particles of capitalization useful, we should be able to identify their early birth pangs, trace their evolution from their inception all the way to the present and, given that capitalization is forward-looking, contemplate the ways in which they shape the future of humanity. This work too awaits its first explorer.

Trajectory Four: The Capitalist State, or the State of Capital?

A parallel – and no less problematic – research trajectory concerns the state. The conventional creed locates the state within the politics-economics duality. According to this creed, capital belongs to the sphere of economics-production-civil society, while the state resides in the realm of politics-authority-power. But what if capital is power and capitalism is a mode of power? What is left then of the traditional politics-economics duality, and where does the dissolution of this duality leave the state?

Our own thinking on this subject begins from the observation that the power institution that today we call 'the state' first appeared in the ancient river deltas of Mesopotamia and Egypt (as well as, and often independently, in Central and South America, Africa and Asia), and that from then on it developed and transmuted to assume various historical forms. So perhaps 'the state of a society' should be given a broader meaning, denoting not a specific institution, but the overall mode of power of that society – i.e., the ways in which social power is creordered, patterned and organized in a given historical epoch (Nitzan and Bichler 2009a: Ch. 13; Bichler and Nitzan 2010a).

In the case of capitalism, we have suggested, however provisionally, distinguishing between the two key *organizational* entities – corporations and governments – and two key *conceptual* entities – capital and state. And we have further proposed, again tentatively, that in this context we can equate the 'state of capital' with the capitalist mode of power.

Now, again, this is no more than an opening salvo. For the state of capital to prove a fruitful idea, it needs to be articulated, deepened and broadened; it needs to be concretized historically and actualized empirically; and it needs to be contrasted with alternative interpretations.

For instance, can the notion of the state of capital shed light on the interaction and partial enfoldment of governments and corporations? Can a CasP analysis of this question offer better insights than those coming from existing heterodox and orthodox views? Consider for example monetary policy, the public debt, banking and financial intermediation more broadly – activities that in the advanced capitalist countries often connect with and account for as much as one-third of all capitalist income. Is it better to understand these activities in terms of the growing *interaction* of governments and corporations, or in terms of their mutual *enfoldment*?

Or take the collection, analysis and leveraging of big data. These activities, whose intensity has increased dramatically over the past generation, creorder a new and largely secret 'information field' with an opaque but arguably significant impact on the nature and magnitude of capitalized power. Should the creation of this new information field be understood from the viewpoint of the state acting *with or against* capital, or can it be better conceived as a new development of the state *of* capital?

The list of such questions is very long. In fact, it includes almost everything of importance in society – from domestic policy and international relations, to popular culture and the penal system, to foreign investment the dynamics of religion. And since all of these processes cut across both 'capital' and 'state', it is worth pondering whether the conventional separation between them hasn't run its course and needs to be replaced with their enfoldment or even fusion.

Trajectory Five: Labour, Production and Waste

Labour and production are front and centre of the capitalist mode of production. According to Marx, industrial productive labour is exploited to create surplus value, the surplus is appropriated by capitalists and the bulk of it is then ploughed back into accumulation. So, for Marxists, understanding productive labour – as well as its negation of unproductive labour and waste – is key to deciphering the entire mode of production. And that is why Marxists reading CasP research often end up asking: 'OK, but what about labour?'

The short answer is that labour, production and waste are very important in CasP – but for reasons that are quite different from those emphasized by Marxists. Unlike in Marxism, in CasP the focus is not on the creation and appropriation of surplus labour, but on the capitalization of power. So to understand the role of labour, production and waste is to understand the ways in which they are *mediated* through power. Specifically, we need to explore how and to what extent capitalist labour, production and waste help mould, shape and creorder the underlying population in ways that boost differential earnings and hype while reducing differential risk.

So how should the category of wage labour, whether productive or wasteful, be studied in CasP? Perhaps here too the best starting point is Democritus, the Greek philosopher who invented the atom. When human beings are locked into slavery or tied in feudal bondage, their position in the power structure – and therefore the power structure itself – is fairly static. But when they are liberated from their traditional ties, at least nominally, and become individual atoms as they are in capitalism, the mode of power in which they are embedded and which they constitute becomes infinitely flexible and highly dynamic. And it is this *flexibility and dynamism*, we argue, that made the emergence of wage labour a prerequisite for the capitalization of power and therefore capitalism itself (Bichler, Nitzan, and Di Muzio 2012: Section 2).

The importance of wage labour, we suggest, lies not in the surplus value it supposedly generates, but in its relation to the reification of force. Capitalism, our theory claims, is a system of capitalized power, and the wage contract is the institution that quantifies, commodifies and eventually helps capitalize the direct power of capitalists over workers.

During the early stages of the bourgeois revolution, the relationship between owners and workers dominated the power structure of the European bourg. The wage contract helped depersonalize and abstract this structure. By making labour a vendible commodity, it relieved owners of any responsibility for their workers beyond the daily wage, gave workers a mobility that feudalism forbade and anchored both in a new morality of liberty and opportunity. The wage contract first appeared in warfare (the hired soldiers of the communes) and then in production (the 'blue nail' cloth workers), and as the institution spread, the ability of capitalists to constantly and flexibly creorder the nature and overall

architecture of their power increased exponentially. The wage contract forced workers to become ever more efficient in ways that slaves and serfs could never be made to be; it helped capitalists divide and conquer workers when the latter attempted to organize and resist; and it enabled the bourgeoisie to leverage the power embedded in this new structure in their struggle to topple the feudal regime.

To answer the question 'what about labour', therefore, is to unzip the role of labour in organizing capitalized power. In his justly famous article 'What Do Bosses Do?' (1974), Stephen Marglin argued that, historically, rulers had almost always adopted technologies that increased their power over workers – *even* at the expense of efficiency and profit. In our view, though, the notion that there is somehow a trade-off and sacrifice here is misleading. In capitalism, power doesn't stand against profit; it is the *essence* of profit. So from a CasP perspective, the task is to rewrite the history of capitalist labour and technology: to examine (1) the conflictual underpinnings of the labour process and the extent to which they have enabled the capitalization of power; (2) how these conflictual underpinnings and the capitalization they enable have been creordered historically; and (3) the asymptotes they inevitably generate and eventually run into.

Trajectory Six: The Shifting Environmental Locus

Another and possibly much broader trajectory concerns the ways in which the capitalist mode of power is embedded in, depends on and transforms the planetary environment. Key foci here include climate change, peak energy and the alteration and possible curtailment of life itself.

There is already a vast literature on the relationship between capitalism and these focal points, but in some sense this literature remains one-sided. It tends to assume that environmental change is a by-product, an 'externality' of capitalism. Capitalism, goes the argument, is both narrowly focused and short-sighted: it is obsessed with profits here and now, and that obsession makes it indifferent to everything else. According to this view, the pursuit of profit tends to damage society and the environment and could even undermine the long-term interests of the capitalists themselves; but as long as this damage does not bear on *current profit*, capitalists tend to ignore it.

This view is not necessarily wrong, but it tells only one side of the story. The other, often untold side is that changes in our environment and in life itself – and the impact those changes have on the social structure – tend to be highly *differential*. Take the recently publicized case of ExxonMobil (Banerjee *et al.* 2015). As it turns out, the company already recognized the adverse effect of fossil-fuel use on climate change in the 1980s – yet it kept quiet about it while leveraging its conclusions to its own differential gains. And this case is by no means exceptional. Water problems, peak energy, massive population movements, genetic engineering, species extinction and planetary pollution, to name a few environmental

transformations, may have harmful consequences. But these consequences are not necessarily harmful to *everyone*, and certainly not to the *same extent*, and this inherent differential can be capitalized in ways that empower some while disempowering all others. Exactly how environmental change is being differentially capitalized, by whom and to what effect are questions whose answers may prove crucial for understanding the future trajectory of the capitalist COP-MOP, and this inquiry, too, is still waiting for its first researcher.

Trajectory Seven: Accounting

Last but not least is the question of accounting. When the Soviet Union was on its last legs, the Kremlin is reputed to have sent satellites to outer space to help it estimate the country's agricultural production. The reason was prosaic: the accounting system no longer worked, the data it generated were highly dubious and the Soviet ruling class had lost confidence in its own language of power.

In a class society, accounting is just that: a language of power. Capitalist accounting was born in the early part of the second millennium and has since developed into a complex ritual that runs our lives from the most general processes of capitalism down to their smallest detail. But by the beginning of the third millennium, the ritual is showing signs of disintegration.

This disintegration is not unprecedented. A similar process happened a century ago in physics, when the old ontological perspective of Newton gave rise to a new, semi-ontological if not non-ontological view, based on relativity and quantum. The same thing is happening now to political economy. The cracks are everywhere – from the inability to distinguish politics from economics and real from nominal, to the failure of growth models and the measurement of 'knowledge', to the limping efficient market hypothesis, the wild behaviour of Tobin's Q, the anomalies of stagflation and amalgamation and the debilitating effect of massive financial fraud on accounting standards. These are all signs of a fractured language, a dogmatic framework increasingly out of touch with a rapidly changing world.

Marx predicted that mechanization and automation would usher in the collapse of the labour theory of value, and that this collapse would undermine the ability capitalists to understand and therefore rule their world. A century later, the labour theory of value had already been discredited, including by most Marxists – yet capitalism remained standing. And why? Because the capitalists had managed to replace classical labour-based accounting with a new method that relies on neoclassical utility. This util-based system is itself crumbling now – yet critical political economists, although vindictive, have nothing to replace it with.

This void is highly dangerous. We no longer live in Palaeolithic tribes of hunters and gatherers, or in small Neolithic villages attuned to the seasons. We live in a highly complex world populated by over seven billion people. We need a radically new accounting system, a

method based not on SNALT or utils, but on fresh categories that will enable truly democratic planning. Developing such an alternative will not be easy. It took capitalists centuries to perfect theirs – and they did so while being in the driver's seat. If we don't begin to develop our own accounting language now, the crisis of capitalism might impose on us a far less appealing alternative.

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