

Financial bubbles and economic crises

Interview with Carlota Perez

The author of Technological Revolutions and Financial Capital talks to Jonathan Rutherford about her ideas.

Could you briefly summarise the main outline of your argument?

In the past 240 years there have been five distinct great surges of development in capitalism, associated with five successive technological revolutions: the original ‘Industrial Revolution’; the Age of Steam and Railways; the Age of Steel, Electricity and Heavy Engineering; the Age of Oil, the Automobile and Mass Production; and the Age of Information and Telecommunications. Each goes through a ‘free market’ period in the early decades, and a more oligopolistic one in the later period, when the state comes back actively. The switch between these periods happens after a major financial crash.

The ‘free market’ or ‘installation’ period of each surge begins in a state of economic stagnation and falling profitability. This began in the 1970s for the ‘Age of Information and Telecommunications’. As the old technologies of mass industrial production matured and exhausted their wealth-creating potential, new information and communications technologies (ICTs) began to revolutionise the generation, processing and transmission of information, changing the techno-economic paradigm for all industries. This paradigm shift happens with each technological revolution. The use of the new technologies leads to a different set of best-practice criteria, a change in ‘common sense’ for the most effective forms of organisation and innovation that make a new higher level of productivity possible for all.

During the Installation period, finance plays a crucial role in unleashing the economic potential of the new technologies. Credit and venture capital are essential to break the old industrial trajectories and make radical changes. Alongside the rising power of finance there is growing inequality and unemployment, caused by rationalisation and the higher productivity of the new technologies. Economic growth is uneven, and there is an increasing polarisation between new and old industries and regions.

Installation ends in a ‘Frenzy’ phase. In the previous surge – for the age of mass production – this was the ‘Roaring Twenties’. In the current one it was the ‘frantic nineties’. A casino economy takes shape, ramping up speculation and financial bubbles, and creating a super-rich elite. Individualism flourishes. There are significant levels of migration from poor to rich areas. New markets are created; most of the old industries are rejuvenated; others wane and die. The productive sphere is restructured. Speculation in the stock market rides on the success of the new industries. Such major technology bubbles are endogenous to capitalism, and perhaps inevitable. They are the way in which the market system assimilates successive waves of wealth-creating potential. They are Sombart and Schumpeter’s ‘gales of creative destruction’, leaving in their wake new growth opportunities on the one hand, and suffering and losses on the other.

The transition from the old order to the new requires these two or three turbulent decades, after which the manias end in major busts: canal panic, railway panic, the crash of 1929, the NASDAQ collapse. During the transition, asset prices decouple from fundamentals, and a breakdown becomes inevitable. It is the growing structural tensions in the system that eventually make it unsustainable. A post-bubble recession (sometimes a depression) then marks the Turning Point, a time for rethinking and reshaping the future that eventually leads to the ‘Deployment’ period. That period comprises the two or three decades – such as the Victorian boom, the Belle Époque and the postwar Golden Age – when the

new potential can be fully exploited across the economy, significantly increasing employment and gradually reversing the income polarisation of the frenzied bubble times.

So, we are now at your Turning Point. Is there then an opportunity to create a post neo-liberal politics?

Yes, indeed. After the bubble collapses, conditions are ripe for political forces to regulate the financial markets, redistribute wealth, and create institutions of social cohesion. Economic sustainability and a politics of well-being for all become feasible once more, and this is precisely what leads to the 'golden age'. Alternatively, political forces supporting the casino economy can try to maintain the selfish individualism of the 'frenzy phase'. Whatever the outcome, the turning point will define the particular mode of growth over the next two or three decades.

It is important to notice that wanting to bring back the role of the state to what it was in the previous paradigm is as big a mistake as trying to keep the casino. Each would, in different ways, prevent optimal levels of economic growth and social welfare. Each deployment period requires its own socio-institutional framework, consistent with the nature and requirements of the newly installed paradigm. Two of the many phenomena that distinguish the current paradigm from the previous one are globalisation and the direct role of social groups (NGOs, web 2.0, etc). The first demands an institutional architecture that harmoniously combines the national with the supranational and the local; the second requires participatory institutions that facilitate consensus building.

But finance is the most powerful force in the balance today. Won't it be very difficult to curb it now?

Yes, and the power of finance was unfortunately kept intact after the NASDAQ collapse. But now the Turning Point has really

arrived. The casino has been revealed as such and people are angry. That is what provides the impetus, the strength and the political will to curb financial power. The debate is no longer whether to regulate or not, but rather about good or bad regulation. On this occasion we have had a two-stage bubble. Whereas in 1929 both technology and finance fell together, this time finance got a new lease of life, especially after 9/11, with the massive injection of liquidity and reduction of interest rates intended to revive the economy at any cost. This second boom and bust is a typical easy credit bubble, but it was the direct result of the unfinished business of the regulators after the NASDAQ collapse. And it has been worse than any other, precisely because it is void of real economy substance, and because information technology has facilitated opaque innovation. I believe it will only end after all the dark corners of the casino have been put to light, and all the bubbles still to burst (hedge funds, private equity, Shanghai housing, etc) have done so.

Technology is embedded in social relations – it is shaped by them and in turn it shapes them. To what extent do you think that culture and the structures of class and economic power determine the character, distribution and impact of the new technologies?

As you rightly say, technology shapes and is shaped by society. The question is what is more useful when designing policy or political programmes. If you give the primacy to existing class and economic power structures you may come to the conclusion that the weak are powerless and can do nothing, because society is already structured in such a way that whatever technology comes along it will be absorbed and co-opted into the old social relations and nothing will change. If, on the contrary, you look at the new opportunities that the technology brings for changing social relations, then you understand why Barack Obama can come from the fringes to the spotlight and to the biggest power post on earth, propelled by an

Internet-based campaign energised by a network of the young. By looking at technology first, you can also understand why mass production led to mass consumption and to an across-class consensus on the welfare state – though in fact, as those technologies were taking shape, three different social structures arose leveraging the same mass production paradigm: Keynesian democracies, Nazi-fascism and Soviet socialism in all their many variants. None of them in their original form could survive the current information revolution with its flexibility, diversification, open network structures and other non-centralising and non-bureaucratic features.

Does this diversity challenge the idea that technologies determine the relations and structures of economic and social power?

Well, it certainly shows that the range of the possible with each set of technologies is extremely wide, but it does not deny that technology defines the nature as well as the limits of the stage upon which the social forces can battle and negotiate for their respective values and goals.

For instance, it is a lost battle to fight against globalisation. Information (and money) can travel transparently across frontiers and the global telecommunications infrastructure makes it easy to manage giant complex structures spanning the globe. Those are powerful shaping forces defining important directions of growth. Still, there are many options for globalisation, and the neo-liberal model is only one of the paths to follow. This paradigm offers the possibility of doing for the whole world what mass production did for the workers of the developed countries. And in the process the world could see one of the greatest booms ever imagined.

The logic of the developments you describe seems to involve a growth in the size of the commercial sphere and perhaps a diminishment of the non-

market sphere. Do you see new technologies as in any way facilitating the development of the non-market public sphere in ways that are free of commodification?

I am not sure that increasing non-market relations is the way to maximize well-being. Perhaps the market needs to be ‘tamed’ to fulfil a wider range of human needs. I suspect that much of the resistance against ‘commodification’ stems from the way mass production shaped consumption around the possession of goods rather than on any sort of spiritual satisfaction. By contrast, there are many things happening with markets in this paradigm that may be opening new directions towards the greater welfare of both producers and consumers.

The organic food movement, ethical trading and corporate social responsibility give different ways of conducting the market economy. These trends are bound to increase for two main reasons. Firstly, the far-reaching transparency of information opens behaviour to view (public opinion on the web has pushed Walmart, for instance, to significant changes in relation to its workers and to the adoption of a strong environmental policy). Secondly, in this paradigm, market competitiveness is more and more based on creativity, and creativity cannot flourish unless people feel satisfied at work. Meaningful work, whether self-employed or in a big corporation, adds an important dimension to the notion of quality of life that was absent – except for an elite – in the mass production paradigm.

Other new developments are the Open Source movement, the ‘blogosphere’ and the Commons that create new channels for expression and communication. Equally, Project Gutenberg, the MIT and Yale courses on the web, Google books, and Wikipedia are offering open access to culture and knowledge in ways that would have been unimaginable even twenty years ago. These are spaces that intermingle with the market in different manners, they live alongside it, they use some advertising as funding (Google’s AdSense, for example) and sometimes they even teach the market.

Free music sharing sites were ruled out, but they gave birth to the dollar-a-song business model which is a positive sum game between users, artists and producers. The relative weight that these open spaces of non-market or semi-market relations will occupy in the long-run depends on many factors, but they are likely to have a significant influence on the behaviour of market-based web-sites.

It is easy to dismiss all that as merely weak trends destined to be crushed by the inexorable force of market calculation. That is very similar to what happened in the 1930s, when many on the left dismissed the official recognition of labour unions as a ploy and did not see the major transformations that the welfare state and the regular raising of wages with productivity would bring to people's lives. In this respect, we should reflect upon the fact that in the 1930s the goals in the current developed countries were mainly adequate food, shelter and education, whereas now that bottom line is taken for granted in those countries and the accent has moved to loftier values and aims.

Three of the deployment periods you discuss – the Victorian Boom, the Belle Époque and the post war Golden Age – have been times of intense political struggle. Where do you think the contradictions will emerge as we move out of the turning point into a new deployment period? Not just in economic relations, but also in class and social relations and culture?

Perhaps it is time for the left to stop centring its attention on the 'contradictions' and focusing on the ways in which interests can be partially reconciled for the benefit of both sides – or rather of all sides, because there are rarely only two. I think recent history has shown that the poli-classist approach of social democrats was more successful in improving people's lives than the single-class approach of the various versions of the Soviet society. The Scandinavian countries with their consensus policies were a resounding success during mass production in both social justice and overall quality of life. A similar path could be followed now

more widely to reap the maximum social benefits from the potential of the current paradigm.

Of course, if my interpretation is correct, maturity will also be reached within the ICT-based paradigm and the consensus will again be broken – as in 1968 – and the next technological revolution will confront and eventually supersede whatever socio-institutional arrangements are set up to cater to this paradigm. Finance will come back to force the next paradigm diffusion and advance until it reaches boom and bust ... and so we go again.

Taking history as a guide, we are now going through times equivalent to those of the New Deal and Bretton Woods. This is the moment when the medium-term future is being defined one way or another within the wide range of the viable with this paradigm. To obtain the maximum benefit from the enormous potential now available it is necessary for the state to actively intervene in order to shape the space for market action, tilting the field in favour of social and environmental goals and facilitating innovation and widespread investment across the planet.

But if there is a time when concentrating on criticism rather than on positive proposals is truly a wasted opportunity, then that time is now. Identifying viable solutions, proposing institutional innovations and making them a central part of the sort of progressive agenda that can garner widespread support is, in my view, the more likely path towards achieving greater social justice.

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It is important to notice that wanting to bring back the role of the state to what it was in the previous paradigm is as big a mistake as trying to keep the casino. Each would, in different ways, prevent optimal levels of economic growth and social welfare. Each deployment period requires its own socio-institutional framework, consistent with the nature and requirements of the newly installed paradigm. Two of the many phenomena that distinguish the current paradigm from the previous one are globalisation and the direct role of social groups (NGOs, web 2.0, etc). The first demands an institutional architecture that harmoniously combines the national with the supranational and the local; the second requires participatory institutions that facilitate consensus building.

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