



Interview with Carlota Pérez

«A better understanding of the new challenges is needed»

EULÀLIA FURRIOL

Venezuelan, researcher, lecturer and international consultant, she presented the theories from her book *Technological Revolutions and Financial Capital. The Dynamics of Bubbles and Golden Ages*,¹ and expanded her ideas on how we can apply the lessons of the past to the study of future economic scenarios. In this interview, conducted by email, Carlota Pérez helps to further our understanding of the opportunities facing the world in the present economic uncertainty



In your recent presentation in Barcelona you concluded by addressing the subject of the global division of production. You mentioned China and Asia as the world factory, Latin America and Africa as producers and processors of food and minerals, and then you mentioned that Europe should find its own role to complement the others. You also mentioned the key importance of technology, globalization and the environment in the new phase to be constructed. Where do you think Europe can find its position in this new phase?

Every technological revolution has changed the role and the ranking of countries. The UK with the industrial revolution went from being a minor power compared with mighty France or the Austro-Hungarian empire, to being the fastest growing country in the world, capable of defeating the powerful Napoleonic armies. Then, in the mid-19th century, while heading the Age of Steam and Railways, it became the centre of the first capitalist empire. During the first globalization the Age of Steel and Heavy Engineering it rapidly lost ground to Germany and the USA, which developed revolutionary chemical and electrical industries much faster and in a more determined way than Britain. Meanwhile London was busy becoming the financial center for building ports, railways and sea routes to develop the Southern Hemisphere for global

markets in food and minerals. These were very profitable ventures for those engaged in them, but they saw the UK lose its leadership. They also produced major bubbles that eventually collapsed, bringing huge losses and, in the end, it was the USA that emerged as the leader of the next technological revolution (the Age of Oil, Automobiles and Mass Production), that erupted in the 1920s and had its Golden Age after World War II.

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In this period most empires were dismantled and the Cold War –waged between two mass production blocks– shaped the roles different countries played in the world economy. The alliance between the US and Europe defined the First World as the source of advanced industrial technologies and the confrontation between East and West defined the roles played by the various Third World countries.

So there is no historical precedent to assume that any particular place or role is permanent and unassailable. But there is also every reason to identify the opportunities offered by the current surge and for each country or region to seize the best possible position in the new world alignment.

Where does Europe now fit in? It looks like Asia is capitalising on its opportunities and industrial jobs are abandoning Europe?

Yes, repositioning is not easy and globalization has changed the market game completely. The current migration to China does not mean that all manufacturing will be globalized and the advanced countries will have hollow corporations. All industrial sector markets are being segmented into high volume commodity markets at one end and a proliferation of specialized niches at the other. Some of these niches are customized products serving peculiar demands, such as shoes for diabetics. Others may be trials of cutting edge technologies, such as textiles developed for extreme sports or nano-materials such as special paints. Others could perhaps be a business model that can turn into a franchise, as Starbucks did with coffee shops. This proliferation of segments within each product area, both in industry and in services, means that the comparative advantages for competition in each market will vary widely. This is likely to lead to a global distribution of segments where the companies of the most advanced countries in Europe would tend to move their bulk production to the less advanced countries and keep the niche production in-house. And since Europe is such a heterogeneous cluster, it can establish collaborative networks

across countries optimizing the advantages of each country and region. That is what the global company does when it locates its different components in the best possible locations.

The other important change is in how you define the industry you are in. If you are producing special canvas for sail boats, you are no longer in the textile industry but in the sports industry, which has a more dynamic demand, has strong links with high technology sources and commands higher prices and higher profits than the more traditional products and sectors. The same can be said about the health sector, and within it, about the products that care for the elderly. The environment is another sector that will face high demand and dynamic technologies. In these multi-industry complexes, being near to the more sophisticated demand is an important advantage that Europe offers companies. Finally, among the many other new opportunities, Europe can occupy a very important role in the logistics and coordination of the globalized production world. Just think what it takes to operate a major airport efficiently, without leaving any planes in the air or losing passengers or baggage. The complexity of today's global production and distribution networks is hundreds of times greater than that.

To find a successful role you must understand the changes

Carlota Pérez

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underway and see them as they evolve into the future. The globalization process, by its very nature, generates new challenges and new problems which turn into growth opportunities. A better understanding of those new challenges is what will enable Europe to find a successful role.

«European companies would tend to move their bulk production to the less advanced countries and keep the niche production in-house.»

And Catalonia, how do you think it should see its future within the new phase?

You people know much more about Catalonia than I do. Another way of looking at the

new opportunities I just told you about is to identify the forces shaping the opportunity space ahead for any country and it would be up to Catalonians, who have historically been brilliant entrepreneurs, to find a successful path within that space. Currently I see four such forces. The first is the potential of the fully installed ICT (Information and Communication Technology) revolution for enabling innovation in every other sector. This is what has created the almost limitless opportunity space, regardless of the industry, with segmentation into innumerable niches and allowing the coexistence in the market of many qualities and specialities together with the standard versions of products or services or materials. It also opens a very wide range of opportu-

nities in all services and creative industries, given its capacity to enable low cost innovation, production and distribution of intangibles.

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The second is the environment, which has to be seen in all its components: CO₂ and global warming; other forms of pollution affecting health and the food supply; scarcity of non-renewable resources and of water; geopolitical issues relating to energy security; and what could be called the social environment, which includes a high potential for violence, due to the strong income polarization within countries and between countries. These challenges signal strong directions for innovation in all sectors, both through reshaping consumption patterns towards sustainability and health and in catering to the bottom of the pyramid.

The third force is globalization, both in terms of current specialization patterns and in the probable counter-trends that may result from environmental limits, such as rising costs of energy, transport and materials, or from government policies. This signals an increase of transport costs relative to labor, leading to the respecialization of countries and regions and the redesign of locational

patterns, including such aspects as the processing in situ of raw materials to avoid heavy low-value cargo or the production of vegetables and other basic food items around cities or the relocation of the assembly of large heavy products in countries nearer to the points of consumption.

Finally, the fourth force shaping the opportunity space is demographics. There are two powerful phenomena modifying the nature of markets: the aging population in the advanced countries and the millions of new consumers rising out of poverty, who include a very high proportion of young people. These two trends fuse with the environmental challenges mentioned before to shape two very wide innovation spaces: those that have to do with the health and quality of life of senior citizens and those that shape the lifestyles of the new consumers in the emerging countries. This, by the way, given the income polarization that has occurred in all countries, would provide an alternative for the lower income segments everywhere, enlarging the new markets even more. Equally, some of the emerging countries, especially China, also have significant proportions of aging population and would expand the corresponding markets of the advanced world.

You talked about previous crises in history and how we can learn from them.

What are the main lessons we have already learned from previous major crises?

We have certainly learned that these major bubble collapses can lead the world into depression if not confronted firmly. The success of the bail-out policies is a witness to this acquired lesson.

What should we have learned from previous crises but didn't?

We do not seem to have learned that the bail-out of the financial system is not enough; that these major crises are not only financial and that they should mark a swing of the pendulum towards more state intervention and to regulated markets. Those major bubbles are the culmination of a period when finance must be free to experiment with all aspects of a technological revolution and to force the adoption of the paradigm to rejuvenate the old industries, install the new infrastructures and enable as much Schumpeterian «creative destruction» as necessary to change the production fabric and prepare the economy for the flourishing of a new Golden Age.

The financial system must be moved from controlling the economy to serving its expansion. Fiscal policies and regulations must make it much more profitable to finance the real economy than to play in the financial casino. As after World War II, production, employment and expansion must be favored and demand needs to be stimulated.

«Inertia leads to certain decline. But creativity has to be exercised in a successful direction. That is the reason why examining the opportunity space is so important.»

Could you please explain the importance of technology, globalization and the environment now and in the future?

They are the crucial elements of the recovery and of the possibility of a global sustainable golden age. Those are precisely the main directions in which the economy must be guided by intelligent policies. These could include, for instance, very stringent environmental standards to spur local innovation and restrict non-compliant imports. And that and other ways of guiding innovation should also include variable tariffs to maintain stable high-price policies for oil, for instance, to strengthen the chances of infant industries in alternative energies and other such measures. But only full globalization will guarantee constantly growing markets for advanced, emerging and developing countries. The full incorporation of Africa, Central Asia and all of Latin America into growth through production will require global policies and support mechanisms to unleash the processes. Current migratory pressures, violence and

terrorism can only be curbed through bringing hope to the populations of the countries that have been marginalized from globalization.

How should companies prepare for the new phase? Rethinking everything?

Yes. Definitely companies have to rethink everything. They must each look at their strengths and potential with fresh eyes, while recognizing the opportunity spaces that are gone and identifying the new ones. Recovery is not going to be a return to business as usual (and if it is, then it will simply lead to another bubble).

Apart from the four forces we talked about before, there are

two elements to take into account when designing future strategies: the need for networking and the gestation of the next revolution.

Global companies are no longer pyramids; they are flexible networks that span the globe with different degrees of linkage, from the internal networks of the corporation, through the strong allies to sporadic suppliers. But apart from the structure of the company, there is a need for establishing networks, locally and globally, with universities, research institutes, consultants, specialized companies, high-tech service providers and even competitors in order to



▲ Carlota Pérez talking with Douglas Griffin at the ACCIÓ Forum.

generate the synergies that will be necessary for flexibility and competitive success. The next revolution is very likely to be initiated by some breakthrough in one of the radical technologies that are now in their gestation phase: biotechnology, nanotechnology, bioelectronics, custom materials, etc. Making connections with companies and researchers engaged in those technologies makes sense no matter what sector you are in. In a couple of decades, when the current opportunities related to ICT reach their limits, those technologies may be changing the economic fabric again.

How important is it to battle against inertia and to make a creativity effort?

Very important! Inertia leads to certain decline. But creativity has to be exercised in a successful direction. That is the reason why examining the opportunity space is so important.

You also mentioned that now it is up to governments, business and society to manage the transition to either a «golden age» or a «gilded age». How optimistic are you about the future?

I am very pessimistic about the next two or three years. The astonishingly rapid success of the bail-outs has empowered the financial world to resist the necessary regulation that would reorient finance away from the casino mode into a supporting role for the pro-

duction economy. In previous major bubble collapses, the enormous losses both weakened the financial world and angered society pushing politicians to act in the required direction. Today we have ended up with the same recipe that brought the recent bubble: low interest rates and excess liquidity. But now it is worse because there is also moral hazard! The banks will continue in their risky bets, counting on the State to bail them out. The table is set for the next bubble and bust.

«The potential of ICT, environmental challenges, health and quality of life and new consumers in the emerging countries create opportunity spaces.»

What would be the best of the possible futures?

Fully using the potential of the ICT revolution, already installed, to invest and innovate in all sectors transforming the production and consumption patterns towards sustainability all over the world. We are precisely at the turning point where we have to choose between moving towards a «gilded age» of shining prosperity on the surface with continued polarization and instability underneath or towards a true «golden age» of increasing prosperity for all, a global

positive-sum game. That would be the best of possible futures.

As long as we still have economies where the control of investment is in the hands of finance with its short-term goals deviating funds from productive investment to housing bubbles, derivatives, buy-outs and casino-like activities, we are heading for a gilded age with successive booms and busts, with jobless growth and increasing violence locally and globally. To unleash a sustainable global golden age we need policies favoring the growth and expansion of production capital, facilitating long-term investment, creating jobs and enhancing welfare across the globe. This would require a transformation of the financial architecture and the incentive structure so that financial profits come from the wealth created in the real economy and not from asset inflation in the financial casino. But that can only be effective if it is global so that there will not be a regulatory race to the bottom. It would also require some way of «jump-starting» investment in the marginalized countries so that they become attractive for further private initiative, local and foreign. That might be funded through a Tobin Tax on global financial transactions.

I know very well that all this sounds utopian, as did the possibility of having a golden age of mass production ahead when seen from the depression

of the 1930s. Most economists were incredulous when Keynes proposed that to unleash stable growth we would need to set up a Welfare State with income distribution policies and to finance the infrastructure of the Third World through the World Bank. The Marshall Plan was as much for reconstructing Europe after the war as it was for creating dynamic demand for US companies. Unemployment insurance is as much for giving income security to

the workers as it is to guarantee the continued monthly payments of credit and mortgages. When wealth is made from real growth, everybody wins.

«When wealth is made from real growth, everybody wins. This is a time for bold institutional creativity and entrepreneurial imagination.»

This is a time for bold institutional creativity and entrepreneurial imagination. The opportunity space is very wide and, if the appropriate context is created, the benefits of the information revolution can achieve true global reach, while keeping the quality of life for the citizens of the advanced world. If we waste this opportunity by catering to the narrow interests of the financial world, it will have been our responsibility.

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An independent journalist, she has been working for *La Vanguardia* newspaper for over twenty years and published in many media, among which *The Guardian*. She has worked at the press office of several international events such as the 1992 Olympic Games and different international meetings organised by the Department of Culture of the Government of Catalonia. She also collaborates with corporate magazines.



Notes

1. PÉREZ, C. (2002). *Technological Revolutions and Financial Capital. The Dynamics of Bubbles and Golden Ages*. Cheltenham: Edward Elgar. Spanish version: *Revoluciones tecnológicas y capital financiero. La dinámica de las grandes burbujas financieras y las épocas de bonanza*. Mexico: Siglo XXI Editores, 2004. Cf. recension by Eulàlia Furriol on p. 222 of this volume.