

# WRITING TO QUEENS WHILE CRISES PROCEED

IN MEMORY OF MANUEL JACINTO NUNES



JORGE BRAGA DE MACEDO, EDITOR



Writing to Queens while Crisis Proceed  
In Memory of Manuel Jacinto Nunes

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## **Preface**

*Francisco Costa*

In November 1984, a conference called “Madeira: Pensar o Futuro” (freely translated as “Madeira: Thinking the Future”) was held in Funchal, capital city of the Portuguese archipelago. As suggested by the title, the main purpose of the conference was to analyse and debate the particular conditions of the small island economy, in order to identify opportunities and strategies for its future growth and development, in sustainable terms adjusted to its permanent constraints, namely those resulting from its small dimension, isolation and insularity, that were later taken into consideration by the then EEC (at the Rhodes European Council, in 1988) to classify Madeira as an “outermost region”.

The promoter of the conference, the Commercial and Industrial Association of Funchal (ACIF), organized it in three panels, each dedicated to specific subjects. The third panel was particularly relevant since it was aimed at evaluating the international economy’s most relevant aspects and trends as well as broad conditions, references and opportunities emanating therefrom that ought to be taken in mind for the debate over the future of the Madeira economy.

Among the many prominent academics and experts on economic matters that were invited and participated in the conference, a special reference should be made to Professors Manuel Jacinto Nunes and Jorge Braga de Macedo who made up the third panel, together with two international economists, Alan Greenspan and Guenter Reimann.

In addition to the presence of Alan Greenspan, who became Chairman of the Federal Reserve Board but did not maintain further connections to Madeira, and Guenter Reimann, who, on the contrary, since 1977, had already been providing advice on matters related to the envisaged diversification and modernization of the island’s economy, the conference should be remembered and celebrated as the debut of the interest and attention paid by the other two aforesaid participants to the subjects covered and to the initiatives that had actually been taken, along the lines then discussed and identified.

As a matter of fact, the process that had already started for the creation and development of the International Business Centre of Madeira (IBCM), largely driven by the activity of ACIF and of the Madeira Development Company (SDM), was significantly enhanced by the debates and conclusions of the conference, and many of the participants, including Professor Manuel Jacinto Nunes, enthusiastically supported its fundamental options and objectives. It was then only a natural development that, in 1987, when SDM was officially granted the concession of the IBCM, Manuel Jacinto Nunes was invited and became President of its Advisory Council and, in that capacity, closely accompanied and supported SDM's activities in the following years. The presence and positive influence of Manuel Jacinto Nunes in this process was later substantially increased when, in 1990, he was elected President of the General Assembly of SDM, maintaining always a very close relationship with the executive leadership of the company.

When I was recently informed about the intention to dedicate the expanded edition of this book to the memory of Manuel Jacinto Nunes, and was asked to write its short preface I could only but accept enthusiastically and try to correspond adequately, not only as a testimony to the example and outstanding role played by Professor Manuel Jacinto Nunes in the setting up and development of SDM and the IBCM, where I was the fortunate direct beneficiary of his support and incentive, but also because the invitation was made by Professor Jorge Braga de Macedo who, with the same spirit, was his alternate and is now his successor in SDM.

## Chapter 1

### Editor's Introduction

#### 0. Dedication and Acknowledgements

The economic and scientific potential of the Community of Portuguese-speaking Countries (CPLP) should enhance the cultural legacy of its nine members. Though most of them have ignored the complementarity, Portuguese export firms associated to ELO - a business association for development and cooperation with emerging markets - are promoting the new conception of CPLP and implementing a strategy for open economy. Taking stock of the project of writing to a fictional Portuguese-speaking Queen - after the Letter on the 2008 global financial crisis written to Queen Elizabeth by the British Academy - this expanded edition seeks to raise awareness of the issue addressed in a booklet with the same - admittedly elliptic – title, published in 2013.

The project reflects partnerships set in motion at the margin of the 2008 board meeting of Madeira Development Company (SDM) and it is dedicated to the memory of its honorary chairman Manuel Jacinto Nunes (1926-2014), who supported the project as dean of the economics section at the Lisbon Academy of Science (ACL).

The cover of the proceedings of a conference held at the Tropical Research Institute (IICT) is reproduced in the front flap, together with that of a book launched there. The titles of the book, *Ethics, Crisis and Society*, and of the conference, *Science in the Tropics*, underline the broad interdisciplinary and geographical reach of “global lusophonia”, which includes CPLP members and observers as well as their areas of integration, beginning with the Euro Zone (EZ). The black flat reproduces the back cover and the reprint of my contribution to the book, where the project labeled *Letter to Queen Lusophonia* (LQL) was first described<sup>1</sup>.

LQL has been discussed at ACL thanks to the commitment of members of the economics and physics sections (respectively 6<sup>th</sup> and 2<sup>nd</sup>) in the humanities and science

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<sup>1</sup> Renaud and Marcelo (2011, 91 note 1 in fine). Ibid., p. 144, note 36 there are references to writings on the crisis by members of the economics section including Jacinto Nunes (2009) and Pitta Cunha (2009) and to items listed in Chapter 7 (1 by Sousa Andrade and 5 by Cardoso) as well as Chapter 3 and Contzen (2010).



classes, including foreign members of both classes as well as of the technology and society class of *Académie Royale de Belgique* (ARB). The pre-existing material from LQL has been used in courses involving the Center for Globalization and Governance (CG&G) at Nova School of Business and Economics (NOVASBE) and this expanded edition is directed to the new course on *Globalization and Governance* offered in the masters program this spring.

The partnership with CG&G was crucial in the 125<sup>th</sup> and 130<sup>th</sup> anniversary celebrations of IICT. Its integration into *ULisboa* (the result of a merger between the former classical and technical universities of Lisbon) should enhance tropical knowledge there and at *Nova*. The spirit of inter-university collaboration was certainly present when these three Lisbon universities granted an honorary doctorate to Paul Krugman, a foreign member of ACL (27/02/12). Similarly, ACL's Institute for Advance Study signed an agreement with IICT and CG&G (18/02/08) and convened a workshop dealing with Energy@CPLP (25/02/15), where the progress of LQL was also presented.

The cover shows a crown with nine CPLP flags in the form of number seven rising from gentler waves than those in the illustration of Poe's *Descent into the Maelstrom* (used in the back flap). Tiago Ribeiro and Laura Domingues, both of IICT, created the cover and reviewed the text respectively. Sónia Oliveira and João Pereira dos Santos, teaching assistants at NOVASBE, helped prepare this material for the *Globalization and Governance* course. Thanks are due to them and to Francisco Costa, CEO of SDM, for relentless support.

## 1. Seven years on

Sete anos de pastor Jacob servia.../Começa a servir outros sete anos,  
Dizendo "Mais servira, se não fora/ para tão longo amor tão curta a vida".

The lyrics excerpted above were sung by Amália as *fado*<sup>2</sup>. The notion of fate, in addition to the biblical origin of the story, highlight familiarity with seven year cycles as

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<sup>2</sup> Amália Rodrigues sang several poems by Luís de Camões from 1965, this one appearing in her 1990 *Obsession* album. "For seven years, the shepherd Jacob slaved.../ But he starts all over again, for seven more years,/ Saying "If life wasn't so short, beginning right now, /I serve even longer for Rachel, the love of my life." I confined to a footnote the only translation I am aware of because Baer (2008, p. 147) has no rhythm. As pointed out in the review by White (2006), it "offers us the first substantial selection of Camões' sonnets for more than a century, and should be welcomed for that reason alone...But even a labour of love can be laborious...Camões' Portuguese, in its wit, lucidity and extreme economy of expression, occupies the left-hand pages. Baer's English - normally the more succinct of the two languages - sprawls over the right hand as diction and prosody are sacrificed in the search for rhymes...These are not sonnets, rather prose-cribs chopped up, with

well as perplexity about the current economic conjuncture. Jacinto Nunes, to whose memory this edition is dedicated, favored the complementarity between the European and lusophone pillars of Portuguese foreign policy over more than seventy years of academic and public service. In my own tribute to him (Macedo, 2014), I enlist our common mentor and friend António Manuel Pinto Barbosa (1917-2006) and my father Jorge Borges de Macedo (1921-96) among the few who hold the view that the European and lusophone allegiances are complementary, even though in foreign policy practice they have often been substitutes. Drawing on Jacinto's memoirs, I further claim that he ensured the transition between Pinto Barbosa and José da Silva Lopes at the Ministry of Finance and the Central Bank and that he helped bring together Cavaco Silva, the current President of the Republic, and his predecessor Ramalho Eanes in the run up to the second IMF stabilization package in 1983.

The complementarity coming from "multiple allegiances as fate" (Macedo, 1995) became "global lusophonia" at a conference held at NOVASBE on 9 May, 2007 in memory of Borges de Macedo. As it turns out, the event was organized with José Luís Cardoso, who was Jacinto's close disciple at the Institute of Economics and Management and is now director of the Institute of Social Studies at *ULisboa*. Quoting from the abstract in English of Macedo et al. (2009, 9), the paper presented by Luís Brites Pereira, deputy director of CG&G, "embeds the current wave of globalization in a long run perspective and tries to tease out from historical evolution signals about how to design the best strategy to meet the challenges that the current wave requires"<sup>3</sup>.

As is well known, during the second wave of globalization from the 1850s until 1914, business cycles were a major topic in political economy. During the Great Depression, they motivated the Keynesian revolution and national income accounting. After the 2<sup>nd</sup> World War, the North Atlantic security community enjoyed economic growth, full employment and low inflation over 30 glorious years, as rising interdependence was monitored by the OECD. In the 1970s, a wage explosion and two oil crises created stagflation but growth resumed in the 1980s: the Great Moderation lasted for another quarter century. Claims that business

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slack rhythms and conventional diction, crucified on the rhyme scheme. Despite the lavish academic encomiums that accompany this volume, Camões' lyrics await a poet's translation". In comparison with the biblical narrative, the "economy of expression" is indeed extreme in Camões' sonnet.

<sup>3</sup>The proceedings collect nine essays in the tradition of Borges de Macedo, two of which in English. Cardoso subsequently translated his essay into English as "Jorge Borges de Macedo: Problems of the History of Portuguese Economic and Political Thought in the Eighteenth-Century" and published it in Porto in 2013.

cycles were dead in the OECD areas did not fail to notice sustained growth in China, spreading to Asia, Latin America and Africa. Even financial turmoil in some emerging markets at the turn of the century was met with benign neglect so that nobody saw the "blue eyed crisis" coming. Seven years on, acceptance is combined with fear of Secular Stagnation, a perverse twist to the proclaimed death of the business cycle.

## 2. Jacinto's choice

The LQL project sought to turn the sympathy towards economists shown by the British Academy in their Letter to Queen Elizabeth in 2009 into an interdisciplinary inquiry from the perspective of the European South West – where the conquest of Ceuta in 1415, described in book IV of Camões' epic poem *The Lusiads*, led to what became the first wave of globalization. In addition to the historical roots, the subsequent repercussions of the EZ crisis on the Portuguese economy were central in my tribute to Pinto Barbosa upon occupying his chair 18L, distributed with what would be Jacinto's last academic writing (Macedo, 2013c). LQL fits the role of the former dean of Portuguese economists, President of ACL, Minister of Finance and Governor of the Central Bank well: even the popular sonnet "Seven years..." echoes the closing promise of "monitoring the grave financial crisis we are going through" (Jacinto Nunes, 2008b, p. 159)".

The process itself was determined at the beginning of the fateful year by three seemingly unrelated events. First, in January, I became director of CG&G, the new name for the interdisciplinary and comparative research center on Portugal's structural reforms created during the first presidency of the European Council (21/04/92), by agreement between myself as Minister of Finance and Manuel Pinto Barbosa, then Rector of *Nova*. CG&G helped organize the 125<sup>th</sup> anniversary celebrations of IICT, created on 19 April, 1883 in the run up to the Berlin conference, and turned into a state laboratory dedicated to tropical knowledge in natural sciences and history with which *Nova* had been collaborating since October 1980<sup>4</sup>. The IICT celebrations included a multi stakeholder conference trying to bring

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<sup>4</sup> In 1985 I had been asked to run IICT's Center for Social Economics and contributed to the creation of the ELO, the business association promoting "economic lusophonia" ten years before the foundation of CPLP. Upon returning from the OECD, I was appointed President of IICT and promptly signed cooperation agreements with CPLP and its Business Council in 2004. In 2012, the supervision of IICT moved from the

together natural and social sciences for tropical development, to be held in September and addressed Science and Technology and the Millennium Development Goals (MDGs)<sup>5</sup>. Second, in February, I signed a Memorandum of Understanding with ACL's Institute for Advanced Studies (IAE). The objective was to foster interdisciplinary research and tropical knowledge and it fit the agenda of the 6<sup>th</sup> section since Cardoso was himself on IAE's board<sup>6</sup>. Third, in March, I traveled to Funchal for the board meeting of SDM, together with the presidents of the board and audit committee, respectively Jacinto Nunes and Paulo de Pitta e Cunha, who were also dean and deputy dean of the 6<sup>th</sup> section (Economics and Finance) of the humanities class at ACL - of which I had just become a member. There we decided to foster the section's activities, beginning with an innovative way to select a foreign member that could succeed the late James Tobin, elected in 1981, when he also was awarded an honorary doctorate by *Nova*<sup>7</sup>.

Meeting two weeks after the dean's death on 14 July, the entire section welcomed the idea of honoring his memory<sup>8</sup>. In reverse chronological order, tributes have been expressed by: Pitta e Cunha at the board meeting of SDM, on 9 March, 2015; António Pinto Barbosa, in a note dated November 27, 2014 translated into English as chapter 8; Macedo (2014) and - even before the section met as becomes a close disciple - Cardoso, in *Expresso*, 18 July. Seven years after the Funchal moment, we honor the memory of our former dean, who contributed decisively to both the launch of LQL and the involvement of ACL in Krugman's Lisbon *TriDoc* in 2012 (Macedo, 2013b). Silva Lopes, also active in LQL, was elected successor to Jacinto's chair 8L (24/02/15). This was the natural choice as they had both

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Ministry of Science to the Ministry of Foreign Affairs. The objective of integrating IICT in a Lisbon University appeared in the Contzen report of spring 2013 and the choice of *ULisboa* surfaced in the fall.

<sup>5</sup> Given the strong collaboration initiated in 2004 with the Executive Secretariat of CPLP and of its Business Council, IICT had carried out in 2007 a study on the MDGs, with the purpose of monitoring the 2006 Bissau declaration on MDGs in CPLP. This report was carried out with the help of NOVASBE. Note also that the Secretariat of the CPLP Business Council was initially located at ELO.

<sup>6</sup> Jacinto Nunes had also chaired IAE. The latest successor of Cardoso at IAE is Michel Renaud, from the 3<sup>rd</sup> section (Philosophy, Philosophy, Psychology and Education Science) of the humanities class, organizer of the interdisciplinary conference whose proceedings were launched at IICT. IAE also facilitated the workshop on Energy@CPLP, based on the proposal presented to the President of ACL by Rui Vilela Mendes and myself.

<sup>7</sup> The process of selection of possible Tobin's successors in a ballot including all members of the 6<sup>th</sup> section also involved Cardoso, the third ranking member of the 6<sup>th</sup> section, and Silva Lopes, who advocated the submission of the two candidates with more votes, Paul Krugman and Olivier Blanchard. Until his death, Jacinto Nunes never tired of helping the section, and Pitta e Cunha, his successor, is doing the same. Throughout, I have served as informal secretary, aka "mailbox".

<sup>8</sup> The minutes are available at <http://www.jbmacedo.com/acl/nota6secfin.pdf>.

become associate in the 1970s and he had managed to convince Jacinto Nunes to write his memoirs in 2008, an already quoted book titled “loose memories”! Though Jacinto’s widow warned me that he wrote it in a hurry, I found *Memórias Soltas* to be a precious guide to the unique way in which he managed to be “economist and citizen” since the late 1940s. On page 16, after he confesses having written on Stefan Zweig, Wittgenstein, Camões and others, he declares his interest in the philosophy of science; on page 159, before ending, he quotes his last presentation to ACL, titled “Methodological Individualism – the microfoundation of macroeconomics”<sup>9</sup>.

### 3. From tropical knowledge to global lusophonia

While the original conference on the 2008 crisis was postponed, as detailed below, the publication of this expanded edition shows that the desired interdisciplinary debate about “global lusophonia” has been taking place<sup>10</sup>. On 30/09/08, the planned multi-stakeholder conference took place at the Macau Cultural and Scientific Center at the margin of the 15<sup>th</sup> Executive Committee meeting of the Consultative Group on International Agricultural Research (CGIAR, housed at the World Bank) where IICT represents Portugal and at the general assembly (under IICT presidency of the European Consortium for Agricultural Research in the Tropics (now AGRINATURA). The *Lisbon Declaration on Science and Technology for Global Development*, drafted by Jean-Pierre Contzen, chairman of the organizing committee, member of ARB and foreign associate of ACL, called for other academies and research universities to adopt a public debate agenda involving more economic and interdisciplinary work<sup>11</sup>. Work by OECD on statistics, the United Nations University and the Center for International Governance Innovation (CIGI) was also presented.

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<sup>9</sup> As he was not able to proof read, I was asked by the widow (herself NOVASBE’s first librarian), and by ACL’s secretary-general (herself a biologist who addressed the CGIAR meeting in Lisbon), to complete the references. Thanks to the diligence of the successor of Lutgarda Nunes and to the patience of Salomé Pais, I managed to complete Jacinto Nunes (2008a).

<sup>10</sup> This is reflected in Chapter 10, where I see energy issues as one emerging driver of Portugal’s strategy for open economy, capitalizing on the wave of “lusophilia” (Bloomfield, 2012, 33).

<sup>11</sup> The Declaration is mentioned in Renaud and Marcelo (2011, note 29 p. 128). Chapter 10 builds on the two papers presented at the Energy@CPLP Workshop and provides a link to Contzen (2013a).

An inaugural address by Contzen (2013a), Chapters 2, 5, 6 and 7 of this book and a self-evaluation after nine years in office (Macedo, 2013a) were recorded in a DVD (IICT, 2013), with Harry Clarke's 1919 illustration of Edgar Allan Poe's *Descent into the Maelstrom* on the back cover. The reason was that the story had been used as a motivational metaphor for *Ethics, Crisis and Society*, with a large, swirling body of water pictured on the front and back covers of Renaud and Marcelo (2011). In the 1841 short story, survival came from the cask rather than the boat:

“I resolved to lash myself securely to the water cask upon which I now held, to cut it loose from the counter, and to throw myself with it into the water. I attracted my brother's attention by signs, pointed to the floating barrels that came near us, and did everything in my power to make him understand what I was about to do. I thought at length that he comprehended my design - but, whether this was the case or not, he shook his head despairingly, and refused to move from his station by the ring-bolt”.

At the book launch, Contzen mentioned the art of navigating the straits of Messina and accompanied it with a call for “renewed ethics for a society at peace, more resilient to crises”<sup>12</sup>.

#### 4. Seeing crises coming

Perhaps more than on duration, narratives depend on the story's defining moments, especially the beginning. The stages of the business cycle are systematically dated but, when crises are seen as “great”, their end may not be as easy to recognize. This applies to the Great Depression, sometimes seen as ending with the 2<sup>nd</sup> World War, and to the Great Recession, whose end has not been declared. Yet, “few advanced countries have returned to pre-crisis growth rates despite years of near-zero interest rates. Worryingly, the recent growth is fragrancé with hints of new financial bubbles” (Teulings and Baldwin, 2014, 1).

In 1938, nine years after the beginning of the Great Depression, Alvin Hansen wondered whether there would be sufficient investment demand to sustain future economic growth. What came to be known as the hypothesis of secular stagnation (dubbed *SecStag*),

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<sup>12</sup> «Mettons en lumière les raisons d'espérer; ne prenons pas à la lettre la belle image du maelstrom qui engloutit tout, ce maelstrom, glorifié par Edgard Allan Poe et Jules Verne qui n'est, à vrai dire, qu'une particularité de la dynamique des fluides, devenue simple attraction touristique dans certaines parties du monde. Suivons l'exemple de ces marins siciliens qui avaient acquis l'art de naviguer entre Charybde et Scylla et utilisons notre pouvoir de penser pour créer un nouveau dynamisme basé sur une éthique renouvelée dans une société apaisée, plus résiliente aux crises ». This is skipped in Contzen (2013b).

raises issues of special concern in Europe, Japan and US about: “the economy’s long run *potential growth* rate, about the deviation of *actual* growth from its potential and of one-off changes in the level of GDP without a change in the long-run growth rate”. The “structural headwinds” that are mentioned in connection with diminished long run growth potential are technology, demography, education, inequality and public debt though their comparative effect on *secstag* is disputed. Yet there is agreement that the very low level of the real interest rate “is a clear sign of excess saving”<sup>13</sup>.

Geographical scopes also differ in these two “great” crises. The failure of Lehman Brothers was immediately seen as a global crisis while the 1929 crash in the US stock market may have been slower in crossing the North Atlantic but the implications of the 2007 subprime crisis were also seen as negligible on the US economy, let alone in Europe.

This perception remains after seven years and its implications for the economics profession resonated almost immediately: on 5 November, 2008 during a visit to the London School of Economics, Queen Elizabeth questioned the ability of economists to predict the crisis. The response came in the form of a letter “signed by LSE professor Tim Besley, a member of the Bank of England monetary policy committee, and the eminent historian of government Peter Hennessy”, as members of the British Academy. “The letter blames “a failure of the collective imagination of many bright people” and “tells of the ‘psychology of denial’ that gripped the financial and political world in the run-up to the crisis”<sup>14</sup>.

ACL’s 6<sup>th</sup> section met on the first anniversary of the Queen’s visit, to agree on a tentative program for an interdisciplinary conference designed to illustrate the popular perception of economists following the global crisis<sup>15</sup>. It featured Paul Krugman and Olivier

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<sup>13</sup> Teulings and Baldwin (2014, p. 13) mention Jean Tirole’s 1985 paper on “rational bubbles” and find Europe and China especially susceptible to this “paradox of ageing societies” (pp. 3-22).

<sup>14</sup> Quotes are from Stuart (2009), who reports on the letter as follows: “A letter was group of eminent economists has written to the Queen explaining why no one foresaw the timing, extent and severity of the recession. The three-page missive, which blames ‘a failure of the collective imagination of many bright people’, was sent after the Queen asked, during a visit to the London School of Economics, why no one had predicted the credit crunch... Professor Luis Garicano, to whom the Queen directed her question when she visited the LSE in November last year, said: “She seemed very interested, and she asked me: ‘How come nobody could foresee it?’ I think the main answer is that people were doing what they were paid to do, and behaved according to their incentives, but in many cases they were being paid to do the wrong things from society’s perspective.” The article has a picture of Garicano showing the Queen graphs under the title “managing the credit crunch”. See also Pierce (2008).

<sup>15</sup> Garrido (2010). The conference, sponsored by Banco de Portugal, was to take place in the spring of 2011 but had to be postponed due to the deterioration of Portugal’s economy and polity which led to the bail-out request on April 7.

Blanchard, the two candidates to foreign members who were elected by the class in 2010. The outcome desired by the project also involved a letter but the message would differ from that of the Letter to Queen Elizabeth on two counts. Instead of asserting the “psychology of denial” in terms of economics and humanities, with an Anglo-American focus, as the British Academy had done, ACL would add to the economists interested members of its physics and biology sections, such as Rui Vilela Mendes and Rui Malhó, and broaden the geographical focus towards CPLP.

## 5. From fiction to reality, fast and slow

As a consequence of this bifurcation and of the observed duration of the crises, we add additional chapters to the booklet with the same title in IICT (2013). Poe’s uncanny message of hope is consistent with the rational nature and presence of mind of the only survivor, who has been compared to the narrator of *The Pit and the Pendulum* as he shows himself to be far more capable than he modestly describes. The same can be said of the protagonist of a novel where a European journalist attempting to report on events in Ukraine, faces forces that appear to be natural but turn out to be man-made. In spite of the subtitle of the novel (Costa, 2014), *from fiction to reality*, rationality is consistent with hope and modesty, just like in Poe’s short story and in LQL<sup>16</sup>. The “together alone” paradox in the international order derives from the observation that potential cooperative solutions are not applied domestically and internationally. The coexistence of a global crisis with national policy responses casts doubt on the “never again issue” in the agenda of the British Academy. Hence LQL is supposed to avoid “group think” (Tett, 2009) of advanced (blue-eyed?) countries.

The debate encompassing humanities and social sciences as well as natural sciences on the one hand and a diversity of CPLP perspectives is deepened and widened in the Chapters by José F. P. Santos, professor of practice at Cambridge and MIT, an associate of

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<sup>16</sup> My contribution to Renaud and Marcelo (2011, pp. 91-159) deconstructs the Letters to Queen Elizabeth in section 2, summarizes the interaction between globalization and governance in section 3, deals with flexible European integration in section 4 and includes an appendix on multilateral surveillance procedures. Of the close to 50 pages, only pp. 95-105 from section 2 and 117-128 from section 3 are summarized in chapter 2, sections 1 through 4 and 10 while pp. 111-114 from section 3 are summarized in chapter 10. References were skipped but the list is now common to Chapters 1 and 2.



CG&G, and by Malhó, an associate in the 5<sup>th</sup> section of ACL's science class first presented at the LQL project session of 24/02/12, (Macedo, 2013b). As the epicenter of the crisis moved to the EZ, and Greece, Ireland and Portugal sought financial assistance from the European Central Bank, the European Commission and the International Monetary Fund, the project's focus shifted to graduate courses at NOVASBE featuring emerging markets, such as *African Development Successes* in 2010 and 2011 (building on *Africa vs. Brazil and China* offered in 2009). The 1st Pre-Conference on "Interdisciplinary perspectives on the Global Financial Crisis" held at ACL, included five papers; abstracts are reproduced in Chapter 7 for Chapters 2 and 3, together with presentations by Contzen at ACL and ARB.

Chapter 3 reproduces a 2011 paper by Vilela Mendes who qualifies the claim that excessive reliance on mathematical models was blamed as the cause for the subprime collapse and the subsequent global crisis by analyzing a few cases, showing that not paying attention to the mathematics was more profitable in the short term. Chapter 4 reproduces the 2011 paper by Renato Flores, of *Fundação Getúlio Vargas* in Rio de Janeiro, who uses the fall of Constantinople in 1453 as a defining moment of a forgotten crisis (abstract is in Chapter 7). In so doing, he draws attention to the fact that not only emerging powers but other regions of the world as well may be offering different development models and may constitute into alternative, in some dimensions more positive, agents, in the conduct of the present stage of globalization, a point echoed in Currie-Adler et al. (2014, where Flores wrote the chapter on Brazil, 667-682). That said, he claims that traditional Western powers have not lost a large amount of control of the world economy. And the crisis proceeds, reallocating world power as in a Hobbesian anarchy where multilateralism seems to be losing ground and turf wars becoming more frequent. As economic policy becomes even more involved with defense and security affairs, the feedbacks from each side to the other seem likely to keep dissent and animosity high. The ability to move from vicious to virtuous circles, certainly the synonym for development coming out of the numerous case studies in Acemoglu and Robinson (2012), is another way of describing a positive G&G interaction. The *secstag* debate remains mostly focused on advanced countries but it is of relevance for development practice to the extent that it may bring forth a negative G&G interaction. Though "both the generation of ideas of development and their application in practice can be properly understood only within their particular historical, political and institutional

contexts...contemporary thinking on development is increasingly generated in a more diverse set of locations, while policy-makers are also progressively going beyond the intellectual capitals that loomed large in the past” (Currie-Alder, 2014, 14-15). This is in stark contrast with *West and Rest* views of the world economy described in chapter 10.

Another major difference in the focus of this new introduction is the rising insecurity in the Middle East and the Ukraine: in the novel subtitled “from fiction to reality”, the action starts in Ukraine during the 2<sup>nd</sup> World War but moves to a competition between China and the US, leaving the EU somewhat caught in the middle. The examples from neuroscience in Costa (2014) nicely complement their salience in Kahnemann (2011). In addition, awareness of the importance of the media and of leadership in crisis is prominent in the *Globalization and Governance* course<sup>17</sup>.

Chapters 9 and 10 come from Energy@CPLP workshop, where papers were also presented by Manuel Ferreira de Oliveira, CEO of GALP, and Alves da Rocha, an economist at the Catholic University of Angola who is foreign member of ACL<sup>18</sup>. There I emphasize the evolution of CPLP from the promotion of “mutual knowledge” in connection with the MDGs to rising economic interdependence, especially in energy – thanks to the work carried out over the last twelve months by ELO under the chairmanship of GALP and then that of CIP, the employers’ association, which has been presented to Portugal’s Strategic Council for Open Economy (CEIE).

The perspective from South Western Europe is consistent with Portugal’s idea of Europe, as shaped by the first wave of globalization and the two complementary allegiances of its people. The globalization of Europe, noted by Richard Rose (2013, 137), implies that “European states are now embedded in an irregular polyhedron with many sides. Each side represents a different policy concern of the states involved.” Portugal’s side is bound to be determined by its membership in CPLP, and must overcome a European foreign policy “with too many voices”. In this connection, the challenges identified by an inter-institutional EU project (ESPAS, 2015) as three global revolutions must be kept in mind. In addition to geopolitics, social and democratic aspirations interact with economic and technological

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<sup>17</sup> Costa (2014) will be presented by the author and Rurik Ingram will lecture on *Leadership in crisis*. LQL is mentioned in Renault and Marcelo (2011, 144 note 36).

<sup>18</sup> He was proposed in 2012 by Ilídio do Amaral, former dean of the 7<sup>th</sup> section (Sociology and other Human and Social Sciences) of the humanities class, with explicit support from the 6<sup>th</sup>.

change, challenges for Europe come from a richer and older human race, a more vulnerable process of globalization with a fragile multilateralism and a growing nexus between natural resources, energy and climate change.

## Chapter 2

### Letters to Queens

*Jorge Braga de Macedo*

The first G-20 summit was held in Washington in December 2008 to deal with the financial crisis even though it also sought to preserve the multilateral trade system. There were follow up meetings on macroeconomic stimulus packages in London and Pittsburgh, where the so called Washington consensus of the 1990s was “pronounced dead” and the IMF received a renewed mandate for comparative analysis. After decades when failures of coordination within and between advanced countries, even within an increasingly integrated EU, were neglected, governments had to face together a financial crisis that their nations addressed alone. Actually this paradox in G&G interaction arose within the EZ itself. There policy coordination was supposed to be strongest, even before the Lisbon treaty gave a formal role to the finance ministers of its member countries (aka eurogroup), alongside those of the EU –who were signatories of the Maastricht treaty in 1992. Independently of joint appearances at the G-20 summits, following enlarged G-7/8 events, developed countries and emerging markets realize that they are mutually interdependent even though they rarely coordinate their national policy responses, making the “together alone” paradox as global as the crisis.

The trade and financial links between the United States and China, sometimes called the G-2, are the most vivid example but the differences in the perception of the financial crisis of 2007/2008 by the Queen of England and the President of Brazil are equally striking. Queen Elizabeth asked how come everyone missed the signals of the crisis. During a subsequent visit to Brazil of her Prime Minister, President Lula made an equally celebrated comment: the crisis originating in rich countries is “a blue-eyed crisis”. There have been responses to the question in the form of letters, whereas the comment has been neglected as a kind of ethnic joke.

Nevertheless, the implicit exchange between Queen and President underscores the cultural dimension of the “together alone” paradox: no one saw the global crisis coming because everyone who could see suppressed a (blue-eyed) crisis. This tendency for “group

think” cannot be ignored “in a world that is both highly connected and tribal” (Tett, 2009). In any event, the British Academy responded to the Queen’s question on 17/06/09 by convening a “Forum” on the crisis. A second “Forum” on the subject was held on 15/12/09, and another letter sent on 08/02/10, investigating “financial and economic horizon-scanning capabilities”. The second letter was more critical of the UK government precisely because “the major challenge is to make institutions and organizational cultures work together. This means also getting the right people involved who see the task as a central part of their role in government. One can have as much scenario planning as one likes, but if there is no buy in from the people who will be taking the decisions in a crisis, then it is probably counter productive”.

Thus the G&G paradox revealed by the global crisis is rooted in “group think” within and between countries. In spite of peer review mechanisms at the OECD and the EU, and of international governance innovation such as the “global partnership for development” (and the seven other MDGs), not enough attention was paid to common problems among advanced countries, including financial regulation and supervision in the face of rising asset prices. Increased trade in goods, services and assets led to rising global imbalances between the US and emerging markets with currencies pegged to the dollar, especially China. The resulting volatility in prices of oil and staples had severe implications for poverty alleviation and food security, making the seven quantified MDGs impossible to reach in 2015.

The argument embeds the letters to the Queen into a renewed interest in methodology which goes beyond recurrent calls for interdisciplinary research - as long as this research does not disturb the usual “economists tribes”, a point that comes across more clearly in the second letter. Noting failures of cooperation within and between countries, a perspective based on G&G interaction to the “together alone” paradox finds “mutual knowledge” essential for the global partnership on development and experiences of culture-based multilateralism. Europe is of course a prime example of regional governance where peer pressure stems from explicit commitments, yet it has become the epicenter of the crisis. Multilateral surveillance mechanisms still fail the mutual accountability test contained in the Monterey declaration of February 2002 which was supposed to replace the Washington consensus and the G20 did not bring out coalitions where peer pressure is for action, not for inaction.

## 1. “Economic Culture Wars” Revisited

If the G20 enhances the multilateral surveillance framework of the IMF in the direction of mutual accountability, coalitions among nations and regions will have beneficial consequences for the global common good and may reflect positively on the role of economists in public life. Truth be told, the only methodological debate I remember, in part because I used it in my introductory macro course at NOVASBE, happened in *Slate Magazine* between Krugman (1996) and Galbraith (1996). One year after the crisis broke, the field was full of controversy: on the day the Nobel prize in economics was announced, testifying that economics as a social science deals with institutional and governance issues, Alan Beattie (2009) wrote a “global insight” about the bickering between freshwater (e.g. Chicago) and saltwater (e.g. MIT) economists. The profession needs humility he concluded, adding “anyone who thinks otherwise is an idiot.” Such “tribal” answers from salt or freshwater economists continue while crises proceed.

A cartoon by Studemann and Thatcher (2009) used a Wall Street version of Voltaire’s *Candide* to mock rational expectations. Speaking at the Perimeter Institute on Theoretical Physics in Waterloo, Ontario, the other end of the communications spectrum, Andrew Lo (2009) argued that both tribes share what he calls “physics envy” and favors organic analogies. These would seem to be more appropriate to model the adaptive nature of individual and collective behavior but have remained far from the mainstream.

The quote from Krugman (2009b) follows: "Few economists saw our current crisis coming, but this predictive failure was the least of the field’s problems. More important was the profession’s blindness to the very possibility of catastrophic failures in a market economy... the economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth ... economists fell back in love with the old, idealized vision of an economy in which rational individuals interact in perfect markets, this time gussied up with fancy equations ... Unfortunately, this romanticized and sanitized vision of the economy led most economists to ignore all the things that can go wrong. They turned a blind eye to the limitations of human rationality that often lead to bubbles and busts; to the problems of institutions that run amok; to the imperfections of markets – especially financial markets – that can cause the economy’s operating system to undergo sudden, unpredictable crashes; and to the dangers created when regulators don’t

believe in regulation. ... When it comes to the all-too-human problem of recessions and depressions, economists need to abandon the neat but wrong solution of assuming that everyone is rational and markets work perfectly."

James Galbraith (2010) begins with another quote from the same piece: "Of course, there were exceptions to these trends: a few economists challenged the assumption of rational behavior, questioned the belief that financial markets can be trusted and pointed to the long history of financial crises that had devastating economic consequences. But they were swimming against the tide, unable to make much headway against a pervasive and, in retrospect, foolish complacency" and takes issue with him for not naming the exceptions: "Apart from one other half-sentence, and three passing mentions of one person, it's the only discussion—the one mention in the entire essay— of those economists who got it right. They are not named. Their work is not cited. Their story remains untold. Despite having been right on the greatest economic question of a generation—they are *unpersons* in the tale". He goes on to compare the distinction between saltwater and freshwater economists to Tweedledum and Tweedledee and concludes: "This remains the essential problem. As I have documented—and only in part— there is a considerable, rich, promising body of economics, theory and evidence, entirely suited to the study of the real economy and its enormous problems. This work is significant in ways in which the entire corpus of mainstream economics—including recent fashions like the new "behavioral economics"— simply is not. But where is it inside the economics profession? Essentially, nowhere. It is therefore pointless to continue with conversations centered on the conventional economics. The urgent need is instead to expand the academic space and the public visibility of ongoing work that is of actual value when faced with the many deep problems of economic life in our time. It is to make possible careers in those areas, and for people with those perspectives, that have been proven worthy by events. This is—obviously—not a matter to be entrusted to the economics departments themselves. It is an imperative, instead, for university administrators, for funding agencies, for foundations, and for students and perhaps their parents. The point is not to argue endlessly with Tweedledum and Tweedledee. The point is to move past them toward the garden that must be out there, *that in fact is out there, somewhere*" (emphasis in original).

While revisiting these economic culture wars helped deconstruct the letters to Queen Elizabeth, the development dimension remains as implicit as the hypothetical exchange with President Lula mentioned at the outset. The “silo curse” brings out historical comparisons but also a broader geographical domain, beyond the “blue-eyed” or Western world. In other words, the dangers of “group think”, apparent before this crisis, have not been analyzed in connection with global, or even regional, governance. In December 2006, Krugman (2009a) spoke in Lisbon of “incestuous amplification” and “suppression” in connection with resistance to social security reform in the US. He elaborated on the idea at his TriDoc and since then in his blog of January 29, 2013 “Incestuous Amplification, Economics Edition” and “Incestuous Amplification, Further Illustrated”.

## **2. Nine points and then three more in the letters to Queen Elizabeth**

Deconstructing the letters to Queen Elizabeth, the first contains nine points and the second three detailed in my contribution to Renaud and Marcelo (2011, 101-105), as summarized in the following table.

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| <ol style="list-style-type: none"><li><b>1. Ferocity not foreseen, powers not available</b></li><li><b>2. Imbalances and risk neglected</b></li><li><b>3. Global savings glut and easy borrowing</b></li><li><b>4. Wishful thinking combined with hubris about risk</b></li><li><b>5. Politicians believed bankers were engineers</b></li><li><b>6. Feel good factor led to delusion</b></li><li><b>7. Lax regulation: don't do bubbles after dot.com</b></li><li><b>8. Psychology of herding and no single authority</b></li><li><b>9. Forecasting failure: never again?</b></li><li><b>10. Horizon-scanning is distinct from forecasting.</b></li><li><b>11. Culture and institutions</b></li><li><b>12. Government did not help</b></li></ol> |
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The first letter to Queen Elizabeth focuses on the advanced economies (especially US and UK) and only mentions China and India in connection with the “global savings glut” in



point 3. Point 5 (seeing bankers as engineers) pertains more broadly to “advanced economies” and leads to the ‘feel-good factor’ there as creating a “psychology of denial” (point 6). The “pressure for more lax regulation” (point 7) was also greatest in US and UK since “some countries did raise interest rates” (point 7a) but the “psychology of herding” (point 8) fed the *benign neglect* about rising imbalances in the US balance of payments. The view of the US and China as a *pseudo monetary union* reinforced the complacency about systemic risks (point 9). The parallel with the 1920s - when residential mortgage rose from 10% of household net wealth to 29% - is striking. The recession which began end 2007 is about half of the Great Depression in the US - but worldwide it was the same at the March 2009 trough. The three points from the second letter underscore the “together alone” paradox within a single government more than the first letter but still neglect the international dimension of G&G interaction.

### **3. Culture and development goals**

The best chance of avoiding the need to repeat the LSE question lies in quickening the sensitivities and states of mind of those charged with trying to anticipate what economic and financial shocks may occur in future. This can only happen where there is an environment which provides sufficient criticism of assumptions and is open to considering a wide range of possibilities. The hierarchical structures and histories of our many organizations provide a major challenge to making this work effectively. Hence the need for a combination of cultural and institutional reform.

Developed countries stand to gain from contributing, bilaterally and multilaterally, to policies that turn developing countries into more open economies, better integrated in the world economy. But globalization can only bring lasting benefits if the governance response is appropriate and diverse G&G interactions make it harder to find what such response might be. In particular, trust between local and foreign partners is even more crucial in developing countries, where most of the population is in a situation of absolute poverty and the state depends on external assistance because it is virtually devoid of a working tax administration. Even in the absence of armed conflict in the country or surrounding region, trust between all the partners and entities that finance development must rest on MDGs and on policies that

sustain economic growth. The prerequisite of institutional change required by such policies confirms the importance of cultural factors.

Culture affects such personal traits as honesty, thrift, willingness to work hard and openness to strangers, in one word, trust. The example that is very clear here is the role of the family. Institutions such as the family are very different in different parts of the world and as mentioned below this has a well defined impact on economic development. A related example is sharing, which is part of Africa's cultural inheritance. Along these lines, the Monterrey declaration favors public-private partnerships for development.

The religious dimension of culture shows a complex pattern of interaction, where the effect depends on the extent of believing relative to belonging: for given church attendance (belonging), increases in some religious beliefs – notably heaven, hell and an afterlife – tend to increase economic growth. For given beliefs, on the other hand, increases in church attendance tend to reduce economic growth. The concern with morality and the theological foundation of culture has increased in the context of the global economic crisis, where the love of truth has been abandoned in favor of a crude materialism.

In his Encyclical letter *Caritas in veritate* - in the tradition of St Thomas Aquinas, Frédéric Bastiat, Willem Roepke and even Friedrich von Hayek according to Rev Robert Sirico (2009) - Benedict XVI urges that this crisis becomes “an opportunity for discernment, in which to shape a new vision for the future” and attributes the crisis itself to badly managed and largely speculative financial dealing but he resists the current fashion of blaming all existing world problems on the market economy. There are two practical implications of “love in truth”. First: Moral priorities of generosity go beyond rights and duties. Second: The common good extends the good of individuals who live in society. The worldwide diffusion of prosperity should not be held up by projects that are protectionist: more not less trade is needed. Institutional cooperation is needed outside the usual players: the defense of multilateralism goes hand in hand with the realization that structural insecurity generates anti productive attitudes wasteful of human resources. Thus human costs always include economic costs and economic dysfunctions always involve human costs.

Rising income divergence within and between countries was once an inheritance of import-substituting industrialization and central planning but subsequent attempts at promoting convergence by raising the growth rate of poor countries over that of rich ones

have rarely been sustained. A caveat to usual convergence measures is the exclusive focus on GDP growth, which is criticized by Joe Stiglitz, Amartya Sen and Jean- Paul Fitoussi in the 2009 report of the “Happiness Commission”. Yet there is not a unique factor behind the poverty of nations. Poor countries are "slightly" disadvantaged in each one of the factors behind prosperity. But the combination of these slight weaknesses results in huge income gaps. This is why Daniel Cohen (2006) claims that more rather than less globalization would make positive G&G interactions more widespread. Yet, the difficulties in measurement and interpretation of changes in cultural and governance variables should be kept in mind. For example, many of the available governance indicators are very arbitrary, in part because changes in these indicators are not easy to interpret. In addition to cultural diversity, then, unavailability of data and inadequate analysis thereof are reasons for available indicators to damage peer pressure instead of promoting it. In any event, many examples of vicious and virtuous cycles quoted by Acemoglu and Robinson (2012) are clear cut.

Before the crisis, the world was on track for halving poverty by 2015 (with a 1990 benchmark). Between 2000 and 2005: 120 million people out of poverty; 2 million lives saved through reduced child mortality; 30 million additional 6-12 children going to school; 30 million additional families having access to drinking water; Boys and girls in equal numbers in primary school. Yet, global poverty progress was largely due to rapid growth in giant Asian countries: China, India, Indonesia and Vietnam. Most developing countries were projected not to meet most MDGs: although necessary, growth alone cannot do the job. Progress on MDGs is shaped by the global economic environment, by domestic policies and, for the poorest countries, how much and how well aid is delivered and used. Each one of these three factors looks worse with the global crisis. Tackling chronic poverty will remain a priority after 2015: MDG achievements will need to be sustained. This implies the need to consider MDGs as part of an overall sustainable development strategy.

Pro-poor growth illustrates a positive G&G interaction, whereas negative interaction hurts growth and development. Reaching the eight MDGs in 2015 presupposes sustained economic growth in addition to better governance and more aid, as recommended at the Monterrey Conference. The 8<sup>th</sup> goal (to develop a global partnership for development) reflects disappointment with the performance of developing countries which seemed to follow the policy recommendations of the Washington consensus. As governance

improvements were not commensurate with the challenges of globalization, especially in what concerns financial markets, some developing countries interrupted the long term convergence process even before the global crisis struck.

Trust between social and economic partners, an environment favorable to business development, and better co-ordination between development finance institutions may all contribute to positive governance responses. As such, they also help translate the MDGs into national and global policy proposals as required by the eighth goal, which features targets for aid, trade and debt relief. In this context, public-private partnerships become an important instrument in creating an environment favorable to the normal functioning of business and the attraction of investment, an essential element in generating employment and creating wealth. To the extent that they broaden the knowledge base for policy dialogue between business and the public sector (points 24 and 25 of the Monterrey Declaration), public-private partnerships help to define the common good and the best ways to bring it about in each country. This broadening of the knowledge base will in turn promote the adaptive capacity of society as a whole, a key to fast growth. The better organized and prepared is the private sector, the more easily it can take coherent positions and contribute positively to discussions and to decision taking. Similarly, a local private sector that is well-organized and technically competent can more easily be an effective partner to foreign investors, avoiding foreign capture of all good investment opportunities. The provision of technical assistance in the context of a public-private partnership can thus help private sector associations to mature or, at very least, to point out the major shortcomings and indicate where assistance could most profitably be applied.

#### **4. Wrong question?**

As mentioned in the introductory chapter, LQL was promoted by CG&G and has been featured in some of the graduate courses at NOVASBE. It was also discussed during Paul Krugman's visit to ACL on 24/02/12. A few days later, as he was being awarded his three honorary doctorates, I introduced him as a "progressist pessimist of the world economy". True to form, he concluded his lecture with a severe indictment of the profession: "In normal times, when things are going pretty well, the world can function reasonably well without professional economic advice. It's in times of crisis, when practical experience

suddenly proves useless and events are beyond anyone's normal experience, that we need professors with their models to light the path forward. And when the moment came, we failed". Silva Lopes, who, as governor of the Central Bank, was responsible for Krugman's mission to Portugal in 1976, commented on the doctoral lecture and concluded with an equally dire prediction followed by a kind of silver lining: "I would very much like to see in the near future the weakening of the influence not only of freshwater economists but also of their conservative European followers. But I fear that this will not happen until we find ourselves in a more calamitous situation than at present. My only hope is that the ideas of Paul Krugman will soon have more influence in policy makers than at present seems to be the case".

In Chapter 6, RM quotes the Hayek vs. Keynes *Boom and Bust rap anthem* used in my principles of macroeconomics course and cautions against any pretension about what is the best model of economic development as I cannot identify the winner of 'the fight of the century'. Nevertheless, he agrees with the contributions by RVM and JFS in Chapters 3 and 5 respectively. Before noting "the absolute need to internalize the concept that no system can maintain perpetual expansion/growth" and acknowledging not a mere replacement of dominant powers but the emergence of a "second world" (Parag Khana), he quotes Flores claim in Chapter 4 that the feedbacks from each side to the other will not contribute to "peaceful and constructive approaches".

In response to RM, RVM suggested that the problem is not the crisis itself, but the coupling between finance on one side and productive economic activity on the other as described in Chapter 3 below. In that connection, he emphasized the importance of the timing of intervention from the regulators.

As described in Macedo (2013b), Krugman mentioned evolutionary economics in the discussion of LQL, to the effect that organisms' evolution occurs locally and takes place over time, maximizing reproductive success, often taking advantages from crises in detriment of equilibria. If economics is done with the right spirit, some biological models cannot be applied. Some aspects in economics can be modeled by physics so that the Queen's question is the wrong question. In addition, financial crises are not new, they happen all the time and are recognizable. This time is different, but it is never different. At the surface it looks different, but on the basis there is always the same pattern. While this time more

documentation is available from the past, people have a short memory regarding crises. In the immediate times people will save, but then they will forget and so will the regulators. People's perception of bank functions has been misjudged. Lots of banks and products were unsupervised and unguaranteed. The usefulness of parallels between the biological world and the "human world" should therefore be questioned. For Krugman, Greece suffered a natural catastrophe and this raises the question of whether there would be a biological model to solve the crisis.

Silva Lopes argued that behavioral economics is a growing field from which we have more to learn than from biology. Sociology and history can give more support to understand and apply to crises: different organisms; different behavior. The way to solve a crisis in Germany can hardly be successfully applied to Portugal, due to personality differences. Pinto Barbosa read a text reproduced in Macedo et al. (2013b) and asked whether there was some original misdiagnosis about the most relevant fragilities that of the EZ and, if so, might have this possibly contributed to a somewhat inadequate design of a proper monetary framework? Krugman replied that this crisis was an asymmetric shock story because Europe is almost a closed system.

Luís Goulão valued the contribution of psychology, psychiatry and neurology to understand the crisis, framing biology of thinking-organisms. Fear prevented us from seeing the crisis and difficulties in facing errors lead to more errors. Different geopolitical references induce different information perceptions. Likewise, distinct average life expectancy thrive different decisions and will to take risks. Ana Melo added that there are two levels of regulation in a cell - locally and globally. There is also an enormous redundancy of regulation mechanisms to overcome cell malfunctioning. Moreover, the efficiency of biological regulation relies on huge networking between every pathway of the system. Only this ensures life as a tightly regulated and thus successful process. RM added that we have to find accurately our place in the system. There is a difference between individual and collective behavior. Time scale is critical when applying biological models to behavioral ones. Man has social sciences, nature does not.

Helena Garrido came back to the issue of relating biological models to finance markets: nowadays economy is not the same as a couple of years ago. Can we apply the same models? At this point I had to bring in another Princeton Nobel prize in Economics, Daniel

Kahnemann who argues that we have two minds - a shallow and a slow and lazy. Since the second is lazy we tend to use too much of the first, which limits rationality. Therefore, it is easier to see the balances on others than in ourselves.

The diversity of CPLP perspectives could contribute to put multidisciplinary work in the agenda and to trigger public debate by academies and research universities. “Portuguese-speaking economists might transcend the silo curse in a world that is both highly connected and tribal”.

Krugman doubted again that the question of Queen Elizabeth could trigger a multidisciplinary debate on the global financial crisis or indeed be tackled from a biological approach. As he would say in his lecture and has repeated many times since: “No economic theory can perform the feats its users have come to expect of it. (...) Too much of what happens in an economy depends on what people expect to happen.” Through multiple perspectives, insights, networking and capacity of transmission between groups, a new attitude to face and overcome crises arises.

## **5. CPLP and mutual knowledge**

Portugal and Brazil, five AU members (Angola, Cape Verde, Guinea-Bissau, Mozambique, São Tomé e Príncipe) and East-Timor make up CPLP, with headquarters in Lisbon and under Portuguese presidency of its council in 2008-2010. Like Portugal as a tourist destination in the early 1970s, CPLP remains a “well kept secret” of culture-based multilateralism: “the mutual friendship among members” mentioned in the treaty is not enough to build a global partnership for development from the perspective of the group, what is called “global lusophonia” to underline that the concern goes beyond CPLP members.

The contribution of Brazil was decisive in the creation of CPLP in 1996, the joint presidency of the secretariat and of the council in 2003/2004, and the creation of Business Council with a secretariat at ELO - Portuguese Association for Economic Development and Cooperation. The two more advanced members feared that an economic dimension would trigger expectations of larger development assistance towards PALOP (and Timor since 2000). Yet the Herfindahl number equivalent is 1,4 - the same as for NAFTA – and GDP shares of the four larger countries were never smaller than 99.75%. The Bissau declaration aims at monitoring progress with respect to reaching MDGs. It emphasizes that the

underlying philosophy is one of “genuine partnership for development”, based on “mutual knowledge”, an original concept which suggests governance innovation.

This was a first contribution to inserting CPLP in the quest for “mutual knowledge”. The gains from joint actions with systemically significant emerging markets, such as India or South Africa, can be even greater if these actions enhance the South-South cooperation dimension without diluting the common cultural allegiance. In this regard the attendance at the first Ministerial Forum for Economic and Trade Cooperation between China and Portuguese-Speaking Countries in Macau in 2003 provided a good precedent for greater visibility of work carried out under OECD auspices. The presentation of OECD work convinced the national authorities present, especially the host country, that peer review mechanisms help improve the governance response to globalization and signal the rising financial reputation of emerging markets, thereby accelerating reforms and promoting the agenda of South-South co-operation.

In accordance with a decision taken at the Maputo Summit in July 2000, the first CPLP Business Forum was held in Lisbon in June 2002 and decided to set up a Business Council, whose objectives were listed at the Brasilia Summit in July 2002. They were: (i) to enhance capacity building of business associations in member countries as well as to promote cooperation between them; (ii) to create a business network in the regions where lusophone enterprises operate; (iii) to encourage strategic partnerships; (iv) to promote innovative financing methods, and (v) to support local private sectors in the public-private dialogue. Progress towards meeting these objectives was reviewed at the second Business Forum, held in Fortaleza, Brazil in June 2003 after the Brazil-Africa Forum. At the Coimbra Ministerial meeting, the message was that public-private partnerships have improved governance and mutual understanding between public and private partners.

Facilitating North-South-South cooperation also provides a European identity in development co-operation which has been lacking even though the EU (including the Commission and member states) is the largest donor. Greater North-South-South partnership may be easier in areas where mutual knowledge is greater. CGIAR, already mentioned in the previous chapter, is the international body that sparked the “green revolution” in crop yields during the 1960s and 1970s which alleviated poverty throughout Asia. Due to a lack of support for implementation in Africa, the “green revolution” did not benefit the poor there.



Symbolically, the first meeting of the CGIAR in Africa announced a major reform, implemented throughout 2009.

One reason why North-South-South co-operation may be the way to go is that questions arise about the effect of cultural and linguistic proximity on the effectiveness of peer pressure. The Commonwealth of Nations, based in London, and the *Organisation Internationale de la Francophonie*, based in Paris, are two strictly North-South entities, with some common members such as Canada and Mozambique. On the contrary, the Ibero-American Secretariat (SEGIB), based in Madrid, and especially CPLP are rather North-South-South, with common members Portugal and Brazil. The latter two are easier to recognize because their diversity precludes the association of the language with the particular governance model of the former colonial power: there is no expectation that membership will bring about economic and political convergence. In addition, the geographical dispersion of CPLP is far greater than in the other three entities, and, after the graduation of Cape Verde to middle income country status, there are still five less developed countries.

The overwhelming weight of Brazil and the difference in bilateral relations with India or China between Portugal and the UK, France or even Spain, a member of the G20, goes in the same direction. As RF emphasizes, CPLP is closer to ASEAN or the BRICS in the sense that the diversity of every member is easier to recognize. On the other side, this extreme diversity makes it imperative to enhance the relations between the members and their sub regional organizations, such as the Association of South East Asian Nations (East Timor), the Community of Central African States (São Tomé e Príncipe and Equatorial Guinea), the Economic Community of West African States (Cape Verde and Guinea Bissau), the EU (Portugal), Mercosul (Brazil) and the Southern African Development Community (Angola and Mozambique). Yet progress has slowed at the political and economic level as crises unfold on both sides of the North Atlantic and the CPLP secretariat, its Business Confederation and the Macao Forum did not manage to explore the complementary among members, let alone their surrounding economic areas – as was mentioned at the outset of this edition.

Concluding with Kahnemann (2011), it is easier to see the balances on others than in ourselves. In a world that is both highly connected and tribal, Portuguese-speaking economists might not be better able to transcend the silo curse than their English-speaking

colleagues and an interdisciplinary forum could limit interaction and bring out a hollow consensus. Appealing to LQL was thus seen as a natural imitation of the British Academy, with the two differences pointed out at the outset: going beyond English and social sciences. Recalling Poe's *Descent* from the introduction, there may indeed be a lesson for the popular perception of economists following the global crisis. The brother who abandoned ship and survived showed leadership in crisis (Parker, 2013).

## References for Chapters 1 and 2

Acemoglu, Daron and James Robinson (2012), *Why Nations Fail The origins of power prosperity and poverty*, Princeton University Press

Baer, William (2008), *Luís de Camões*, University of Chicago Press, 214 pp.

Beattie, Alan (2009), Humbling lessons for bickering economists, *Financial Times*, 12 October

Bloomfield, Steve (2012), Something in common, Lusophilia, *Monocle* #57, October.

Cohen, Daniel (2006), *Globalization and its enemies*, MIT Press

Contzen, Jean-Pierre (2010), Science, Technology and Innovation in the 2010s: towards a better focus on global development?, presentation at ACL, 28 January

Contzen, Jean-Pierre (2013a), Science & Technology in the Millennium Development Goals: Another Vision beyond 2015? in IICT.

Contzen, Jean-Pierre (2013b), Commentaire sur *Éthique, Crise et Société*, in IICT.

Costa, Antonio Maria (2014), *The Checkmate Pendulum from fiction to reality*, AEF Moringa.

Currie-Adler, Bruce, Ravi Kanbur, David Malone & Rohinton Medhora, editors (2014), *International Development Ideas, Experience and Prospects*, Oxford University Press.

ESPAS (2015), *Global Trends to 2030: Can the EU meet the challenges ahead?*, Brussels, European Strategy and Policy Analysis System.

Galbraith, James K. (1996), Who's the Real Economist? 8 Dialogues with Paul Krugman, Nov. 6-18, <http://www.slate.com/id/3629/>

Galbraith, James K. (2010), "Who Are These Economists, Anyway?", presented at ASSA

Garrido, Helena (2010), Krugman e Blanchard integram Academia das Ciências de Lisboa, *Jornal de Negócios online*, 16 September.

IICT (2013), *Science in the Tropics: Glimpsing at the past, projecting the future*, proceedings of a conference edited by Vítor Rodrigues, Ana Cristina Martins, Maria Cristina Duarte, Maria Otilia Carvalho and Luís Frederico Antunes, bilingual brochure with DVD, Lisbon, April.

Jacinto Nunes, Manuel (2008a), Individualismo Metodológico – a Microfundação da Macroeconomia, forthcoming in *Memórias da Academia das Ciências Classe de Letras tomo XXXIX*

Jacinto Nunes, Manuel (2008b), *Memórias Soltas*, Lisboa: Aletheia

Jacinto Nunes, Manuel (2009), Alguns aspectos da crise económica, *Anuário de Economia*, Lisboa.

Kahneman, Daniel (2011), *Thinking, fast and slow*, London: Penguin.

Krugman, Paul (1996a), Of Economists and Liberals, *The American Prospect*, December

Krugman, Paul (1996b), Economic Culture Wars: For reasons explained below, the editor dares not add a subtitle to this article, Oct. 25, <http://www.slate.com/id/1911/>.

Krugman, Paul (2009a), Outside Advice then and now, in Francesco Franco, editor, *Challenges Ahead for the Portuguese Economy*, Lisbon: ICS

Krugman, Paul (2009b), "Why did economists get it so wrong?", *The New York Times Magazine* 2 September

Krugman, Paul (2010), Crises, presented at ASSA

Kuttner, Bob (1996), Peddling Krugman, *The American Prospect*, September

Lo, Andrew (2009), The Adaptive Markets Hypothesis and Financial Crisis, Perimeter Institute for Theoretical Physics, Waterloo, Conference on Economic Crisis, May 1

Macedo, Jorge Braga de, (1995), Multiple allegiances as fate: The Portuguese idea of Europe, FLAD, November available at <http://www.jbmacedo.com/papers/fate.html>.

Macedo, Jorge Braga de (2011), Global crisis and national policy responses: together alone? in Renaud and Marcelo, pp. 91-159

Macedo, Jorge Braga de (2013a), Apresentação de Actas em jeito de prestação de contas, in IICT.

Macedo, Jorge Braga de, editor (2013b), Krugman's TriDoc, *Notas Económicas n°37*, Faculdade de Economia de Coimbra, Coimbra, p. 7-22.

Macedo, Jorge Braga de (2013c), Antonio Manuel Pinto Barbosa, Economista e Governante, com Pedro Soares Martínez e Manuel Jacinto Nunes, *NOVASBE Working Paper n° 577 ver.2*, December

Macedo, Jorge Braga de (2014), Em memória de Jacinto Nunes cidadão economista, *Nova Cidadania*, n° 54, Fall-Winter, pp. 51-56

Macedo, Jorge Braga de, Luciano Amaral, Álvaro Ferreira da Silva and António Castro Henriques editors (2009), *Nove Ensaios na tradição de Jorge Borges de Macedo*, Lisboa: Tribuna da História in collaboration with CG&G and IICT.

Macedo, Jorge Braga de, José F. P. Santos and Rui Malhó (2013), *Writing to Queens while Crises Proceed*, in IICT, pp. 1-33

Parker, Alan (2013), The crisis issue, *Brunswick Review*, issue 8

Pierce, Andrew (2008), The Queen asks why no one saw the credit crunch coming, *The Telegraph*, 5 November

Pitta e Cunha, Paulo (2009), A crise económica interna e a crise internacional, *Da crise internacional às questões europeias: estudos diversos*, Lisboa

Renaud, Michel and Gonçalo Marcelo (2011) editors, *Ética, Crise e Sociedade*, V.N. Famalicão, Húmus.

Rose, Richard (2013), *Representing Europeans A Pragmatic Approach*, Oxford University Press.

Sirico, Robert (2009), "Pope on Love in Truth", *The Wall Street Journal*, 13 July

Stuart, Heather (2009), This is how we let the credit crunch happen, Ma'am ..., *The Guardian*, 26 July

Studemann, Frederick (script) and Lloyd Thatcher (art) (2009), The Optimist, part 1 Double Bubble and part 2 Built on Sand, *Financial Times*, 30 and 31 December: <http://www.ft.com/cms/s/0/e5a1261c-f493-11de-9cba-00144feab49a.html>

Tett, Gillian (2009), Waking up to the 'silo curse' is far from the end of the problem, *Financial Times*, 9 October.

Teulings, Coen and Richard Baldwin editors (2014), *Secular Stagnation: Facts, Causes and Cures*, VoxEUorg Ebook;

White, Landeg (2006), In search of a rhyme, *The Guardian*, 18 March

## Chapter 3

### Mathematics and the subprime crisis: Lessons for the next stages

*Rui Vilela Mendes*

#### 1. The financial crisis that started in 2007

Talking at a meeting in January 2011, Nout Wellink, the chairman of the Basel Committee on Banking Supervision, pointed out the following as the main causes of the crisis:

1. The financial crisis was triggered primarily by excess global liquidity, too much leverage, too little capital of insufficient quality and in adequate liquidity buffers;

2. It was made worse by a procyclical deleveraging process and the interconnectedness among systemically important financial institutions that were considered too-big-to-fail;

3. A number of other factors also played a major role. These include major shortcomings in risk management, corporate governance, market transparency, compensation practices and the quality of supervision. Risk management and supervision failed due to an overly narrow, firm-specific focus and an insufficient understanding of how broader system-wide risks could play out under stress.

#### 2. Financial crisis: Was the mathematics to blame?

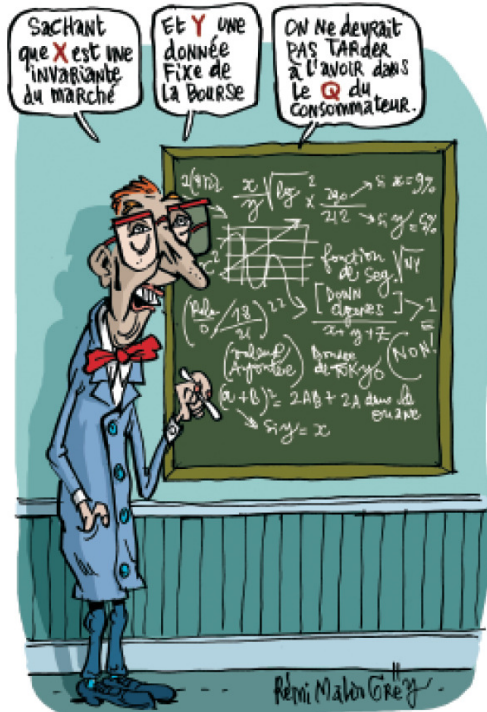
Many people thought so: some titles and cartoons

*Crise financière: la faute aux mathématiques?* (Le Monde)

*Subprime crisis: Did rocket scientists destroy world markets?* (France 24)

*Il faut démissionner Nicole El Karaoui* (blogbosteur.kaywa.com)

## Un krach des maths



However, the mathematics was there, but nobody was paying attention, because it was profitable to do so, in the short term.

Three examples:

- 1 – Risk measures
- 2 – The multiplicative effect (*or sensitive dependence on initial conditions*)
- 3 – Statistical arbitrage

### a) Risk measures, penalty terms and the subprime

First example: Risk measures and penalty terms

Theorem for convex measures (Föllmer and Schied)

Let  $M$  be set of all probability measures on  $\Omega$  (finite)  $\rho$  is a convex risk measure if there is a penalty function  $\alpha : M \rightarrow (-\infty, \infty]$

$$\rho(X) = \sup_{Q \in \mathcal{C}P} (E_Q[-X] - \alpha(Q))$$

The sup being taken over all possible scenarios  $Q$  and  $\alpha$  is convex lower semi continuous and  $\alpha(Q) \geq -\rho(0)$  (see <http://label2.ist.utl.pt/vilela/Cursos/Risk.pdf>)

- In a convex risk measure (not VaR!), the first term represents the maximal expected loss in the scenario  $Q$  and  $\alpha(Q)$  accounts for the probability of the scenario.

- Whereas the calculation of  $E_Q[-X]$  is a simple exercise in stochastic analysis, estimation of  $\alpha(Q)$  involves many factors which are frequently not taken into account. *For example if the historical data that is being used does not contain unfavorable events it is tempting (or profitable) to say that melt downs are quite improbable.*

### **b) Was the crisis predictable?**

Intrigued why the experts of the rating agencies had rated AAA the "toxic" products and had not predicted the crisis, 3 economists of the Federal Reserve of Atlanta, made an extensive analysis of their reports of the years before the crisis:

Most experts reported that a small fall in the price of the houses would lead to disaster, but assigned a small (*penalty*) probability to that event [8].

In the Atlanta paper, instead of the language of convex measures, the authors consider the probability of foreclosures decomposed in to

$$\frac{df}{dt} = \frac{df}{dp} \frac{dp}{dt}$$

$\frac{df}{dp}$  being the sensivity of foreclosures to price (HPA) and  $\frac{dp}{dt}$  the time variation of the price of houses. Their conclusion was that the estimation of  $\frac{df}{dp}$  was correct but not of  $\frac{dp}{dt}$  (this is equivalent to the effect of the penalty term)



Name	Scenario	Probability
1) Aggressive	11% HPA over life of the pool	15%
2) [No name]	8% HPA over life of the pool	15%
3) Base	HPA slows to 5% by year-end 2005	50%
4) Pessimistic	0% HPA for the next 3 years, 5% thereafter	15%
5) Meltdown	-5% for the next 3 years, 5% thereafter	5%

It should have been clear after 2001 that the probability of a downturn was high.

In addition, how could inflation-adjusted prices continue to rise when real incomes of most Americans, especially at the bottom, continued to fall?

A small value was assigned to the *penalty term*. Why?

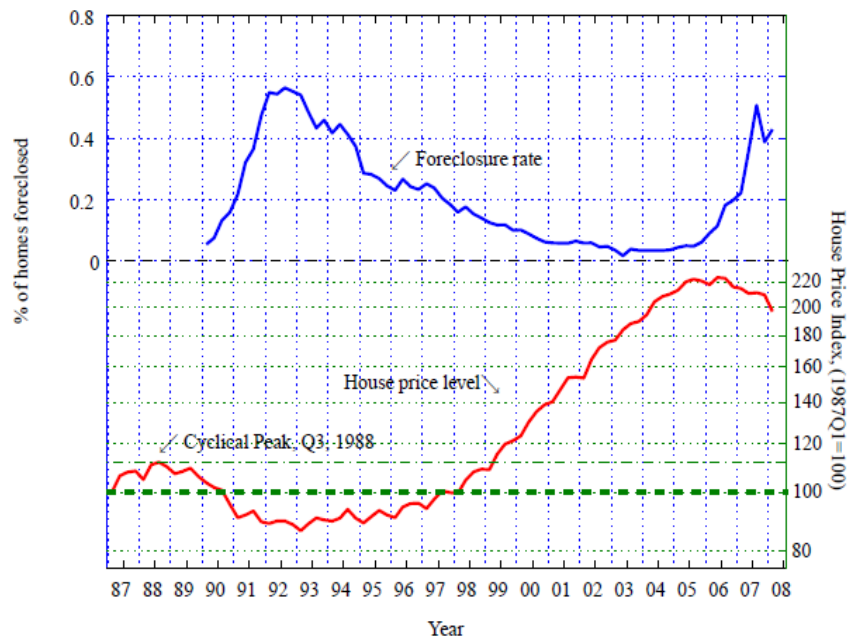
- Conflict of interests: The SEC recognition of the main 4NRSRO's agencies (Fitch, Moody's, S&P and Dominion) together with the recommendations of Basel II, put them in the center of the financial world. However their clients are exactly the creators of the securities. If one agency does not provide favorable reports, look elsewhere.

- A recent proof: In February 2011, Redwood Trust put in the market the second (since the crisis) mortgage-based private-label security in the USA. Redwood asked both Fitch and Moody's for ratings, but only published Fitch's report. Later on, perhaps to assert its credibility, Moody's published its report which was quite negative.

- If the client is the buyer of the securities, a conflict of interest of opposite sign may also occur. Are cent proposal is the creation of government-sponsored clearing agencies. Will it ever work?

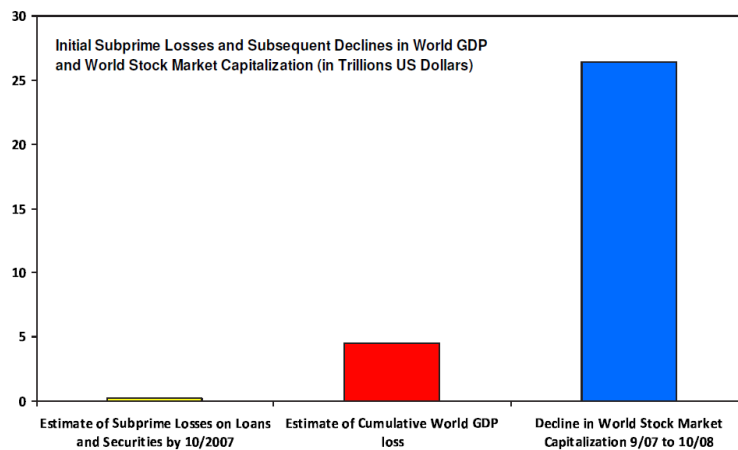
- By the way, after their deplorable performance in the subprime, the rating agencies have now become great experts of the "sovereign debt". Why? To serve their clients, the lenders, of course.

### The evidence against a small penalty term: The housing bubble



### c) The multiplicative effect: The mathematics of sensitive dependence

The subprime was worth less than 5% of the American market. However:



The mathematics of sensitive dependence:

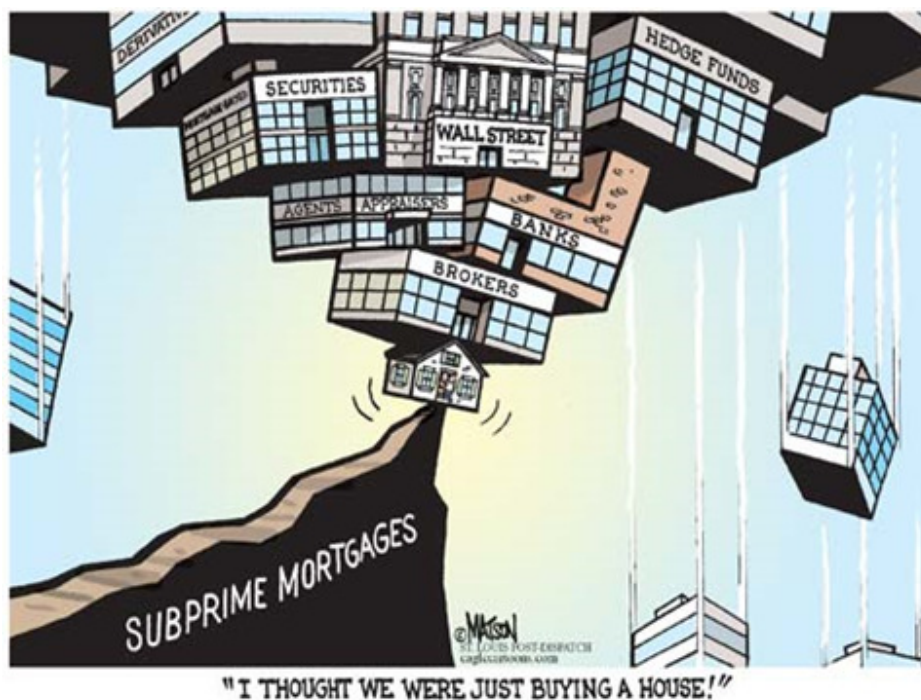
- *As the subprime default rates increased the prices of the mortgage securities dropped.*
- *The involved banks and other institutions had to write off billions in asset values, seek large capital infusions and drastically reduce lending.*

- Reduced lending by banks affects all corporations even those not involved in the mortgage market because of the equity-to-debt ratio and operations financing.

- Hedge funds losing money in the subprime market started selling positions in other markets. Stocks dropped

In this way a sector that is less than 5% of the American market originated a global crisis.

Here again the mathematics is well-known. It is not stochastic analysis but the *mathematics of non-linear dynamics*.



#### d) "The world largest Hedge Fund is a Fraud"

Even when the mathematics is simple people does not want to pay attention. Why?

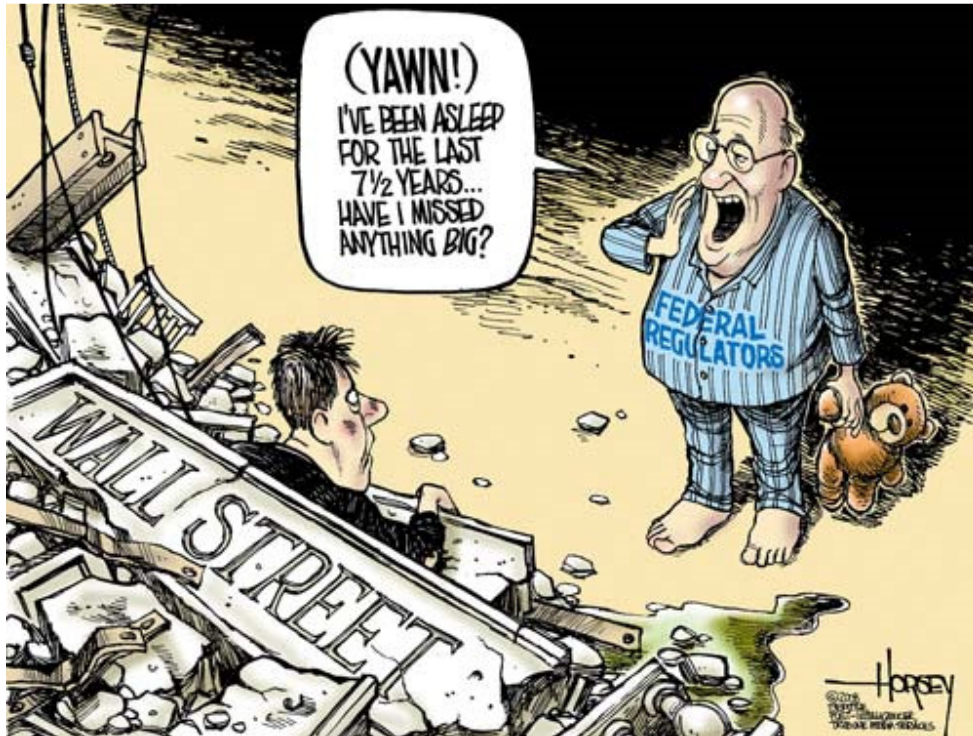
- The 1999 Markopoulos exposition to the SEC and his letter in 2005 about Bernard Madoff.

- From statistical arbitrage mathematics it was evident that Madoff could not generate the stable 12% average annual return unless he was using insider-trading or it was a Ponzi scheme.

- Although some large brokerage institutions (Goldman Sachs, for example) stayed away from any deals with Madoff, he continued to attract a lot of investment in Europe and the USA. Even in a Ponzi scheme the first investors (or those that think they are special) hope to make a profit. The SEC had no timely action.

### 3. Regulation and innovation

A lack of market regulation has also been blamed



- Banks, contrary to other financial institutions (shadow banking), are subjected to supervision and regulation: 1988 BIS Accord (Basel I), 1996 Amendment to BIS Accord, 1999 Basel II, now Basel III and Solvency II.

-That however did not discouraged them (or even encouraged them) to find clever ways to write-off risks from their balance books.

- Conclusion: No amount of regulation will prevent innovation designed to evade it. Therefore regulation should be as dynamic as the innovation. Is this possible or desirable?

- The differences between the Basel III and Solvency II rules have already started to be explored by the insurance companies, although these rules will not become mandatory before 2013 and 2016. Hence *the mismatch of time scales between regulation and innovations*.

What is the mathematics? It is the same mathematics that is used by mathematical biologists to describe, for example, the adaptation of microorganisms to antibiotics.

#### 4. The messages

- For the market practitioners: The mathematics is there. It is only a question of paying attention (*but perhaps it is more profitable, in the short term, not to pay attention*).

- For the mathematicians: To understand the economic environment, there is more than stochastic analysis and derivative pricing.

#### 5. A final comment: The coupling question

As pointed out sometime ago by Olivier Blanchard [9] the losses in the subprime loans and securities, a relatively small sector of the US economy, will have a loss impact in the world GDP of at least twenty times more, not to speak of the much larger impact on the world stock market capitalization. This shows the very serious nonlinear coupling of the financial instruments among themselves and with the overall economy.

The financial sector, an otherwise useful device for making capital savings available for investment, has become an independent world by itself with rules and practices sometimes far removed from the realities of the productive economy. Think for example of the volume of oil derivatives traded every day and compare it with the expected production on the next ten years.

Some of the imaginative instruments that are created in the financial world are not even used for its original purpose. For example the pooling of mortgages in MBS's, an adequate instrument of risk transfer, defeat their own purpose when, for reasons of short time profit, are kept on SIV's. All this is natural to occur, because human ambition is driving the machine and the sector being highly dynamic and innovative is not fully understood by all players. Therefore financial crisis and bubbles are bound to occur and it is unlikely that static regulations will ever avoid them. Many regulations were already in place, which did not control the dot-com bubble or the sub-prime bubble and not probably the next shale-gas bubble.

The strong coupling of the finance world with the world GDP, what is sometimes called the financierization of the economy is the real problem, not crisis which are bound to occur as in any dynamic game. From a useful instrument of the economy, the finance sector became its master. To regulate it is probably not the right approach. To weaken the coupling between the finance world and the "real economy" would be perhaps better. Is it possible?

## References

- [1] *Basel III: A global regulatory framework for more resilient banks and banking systems*, BIS, December 2010.
- [2] *Basel III: International framework for liquidity risk measurement standards and monitoring*, BIS, December 2010.
- [3] S. Griffith-Jones, J. A. Ocampo and J. E. Stiglitz; *Time for a visible hand*, Oxford University Press 2010.
- [4] V. V. Acharya and M. Richardson; *Restoring financial stability*, Wiley 2009.
- [5] M. Brunnermeier, A. Crockett, C. Goodhart, A. D. Persaud and H. Shin; *The fundamental principles of financial regulation*, CEPR 2009.
- [6] D. Cohen; *La prospérité du vice*, Albin Michel 2009.
- [7] *Regulation and financial innovation*;  
[http://label2.ist.utl.pt/vilela/talks/Arrabida\\_2010r.pdf](http://label2.ist.utl.pt/vilela/talks/Arrabida_2010r.pdf)
- [8] G. S. Gerardi, S. Lehnert, S. M. Sherland, P. S. Willen; *Making sense of the subprime crisis*, Working paper 2009-2, Federal Bank of Atlanta
- [9] O. Blanchard; *The crisis: Basic mechanisms and appropriate tools*, Working paper 09-01, Massachusetts Institute of Technology, Department of Economics.



## Chapter 4

### While the crisis proceeds: A world redistribution of economic power?

*Renato G. Flôres Jr.*

#### 0. Prologue<sup>1</sup>.

“Your Majesty,

The fall of the Constantinople market had indeed dramatic consequences on all trade and financial flows and institutions.

Those Byzantine traders had for sure overdone. While they focused on the internal logic of the myriad of products they traded and discussed, including rather exotic options on the timing of the Holy Trinity, they forgot the global picture, overlooking the several and intertwined derivations of their multiple actions.

We apologize for the pun, but the Byzantine rulers were lost in a Byzantine mesh of regulations and bureaucracy whose global view nobody held any more.

NINJA<sup>2</sup> borrowers, from the seven oceans, were menacing the security of the city markets since long. The Rumeli junk bonds – traded also by the Greeks (again?), under the name of Laimokopias bonds – were a clear threat. Hedging strategies were used, but in exactly the opposite way! making more pervasive the entrances to the city markets. The Theodosian Walls Hedge Fund, completely exposed to attacks, was particularly vulnerable. But the authorities kept saying they were the safest guardians of internal stability!

Eventually, those turbaned NINJA, originating from the Anatolian slums, where they lived below the Holy Eastern Empire Poverty Line, made it. What collapsed first? The Theodosian Walls, of course. This young man Mehmet II, a former head of a “Janissaries” NGO (now, sheer establishment) is really competent.

The shock waves due to the fall brought fear and disruption to all realms.

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<sup>1</sup> For the “letter to the Queen” in the Prologue, I’ve freely used information in the classic account by the late Sir James C. S. Runciman (Steven Runciman), distinguished polyglot and medievalist, *The Fall of Constantinople 1453*, Cambridge, UK: Cambridge University Press, 1965. The number of scholarly publications dealing partially or entirely with this main event, at the crossroads of a new era, is simply huge. Many encompass histories of the Byzantine or Ottoman Empires, more than a few are outstanding. I personally suggest as a further introduction to the theme, in a broader panorama, another near classic: Norwich, J. J. 1997. *A Short History of Bizantium*. New York: Vintage Books.

<sup>2</sup> NINJA = Non Imperial Nomad Johns Around.



Several meetings of different K-X<sup>3</sup> groups were held in the most pleasant castles overlooking our greener fiefs, trying to find new regulations to avert the tide of disaster.

Beyond the kings themselves, the imposing delegations comprised numerous wise and fat dignitaries, not to mention the cook himself and, at least, half a dozen jokers. Funnily enough, many times the king played a dual role, acting also as a joker.

No really new idea emerged, beyond using the cereals tax (extracted in great part from the poorer farmers) to rescue those guilds considered “too big to fail”, and a few powerful or trendy craftsmen who supplied the Western and Eastern courts as well.

Whenever discussion touched a more reasonable use of the imperial coffers and vaults of precious stones, the meeting was adjourned for the festivities offered by the castle owner. In spite of the dire situation, these were extremely merry, as shown by the few icons depicting some of them: big smiles systematically pervade all royal faces.

At every new gathering, enthusiasm decreased; from now and then, a little and nervous king promised to revamp the whole agenda.

The solution, Your Highness, came neither from new regulations, nor from talkative masters, but from a taciturn, curious people who lived in a secondary market in the tip of the Atlantic European coast. They kept looking at the sea for long periods, and enjoyed climbing down perilous cliffs for a quick jump into its waters.

But they changed completely the narrative of the crisis, by creating a new grammar and a new syntax. Indeed, an old order and a great Empire had collapsed, and only innovation could have rescued us.

Suddenly, those without their products and instruments became outdated. They found new ways to invigorate business, markets were completed and stock markets bloomed in China, India and in odd tropical lands where everybody, with Your pardon, works and dances stark naked!

Though the narrative was different, the themes and goals were pretty the same: solid fixed income instruments, highly rewarding risky ventures.

Undoubtedly, a tremendous shift in the balance of power took place, and new voices are asserting themselves.

Many want to revive one of the merriest K-X, also known as the Holy League.

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<sup>3</sup> Your Highness, the X stands for the number of kingdoms (K) involved in each group. This notation has become very fancy.

That bloke Mehmet now calls Constantinople by another name, used by his turbaned fellows (it sounds like “Eashtanbool”). He promised to keep the Central Soul’s Bank of Hagya Sofia, to please the Christian traders, though Muslim practices will be introduced there. One (qualitative) forecaster even said that, one day, those people will build a fabulous mosque, all in splendid blue tiles.

Tensions are mounting everywhere, including (one more time!) in the Greek coast. New Italian and German hedge funds and modern banks are blooming, but some say their position is shaky.

We are afraid everything will start over soon.”

Imagine Queen Elisabeth II, after having summoned two bright economists of the kingdom to explain to her the recent crisis, receiving a few days later the above letter.

At a first glance, She must have thought that Her two earnest subjects, overwhelmed by the responsibility upon their shoulders, went to one of those nice and joyful pubs of the City to collect real data. In the course of the enquiries, more relaxed and inspired – and perhaps a bit tipsy –, both had produced such a non-sense.

However, being a fast and bright mind, the Queen, on second thoughts, might ask Herself whether perhaps there wasn’t something in it. Maybe it was – as in the cabalistic writings – a disguised way to convey some truths, a few ideas ...

My perception goes in the same direction.

Notwithstanding the silly or funny aspects of the above letter – both are in the eyes of the reader -, and its far-fetched analogies, it summarizes part of my views on the crisis. They are explained in a hopefully more sober way in the next lines.

The structure of the discussion – which must also be seen as part of an ongoing interdisciplinary dialogue, coordinated by the Lisbon Academy of Sciences - is as follows.

In the first section, I argue that the crisis is far from being over. In its continuous unfolding it poses fundamental questions on the structure of the prevailing order. Some of the arguments in this section are repeated under different guises in the next ones, as behind all this and any discussion on the theme of the Pre-Conference lies an enormous dilemma: what alternative do we have for the present order?

Combining basic geo-political considerations with the economic facts may change the way to look at, and forecast the consequences of the crisis. Not only as regards the limited

debate on “when will the recession end?”, but also in the way to consider several pieces of after-crisis rhetoric, as “better and increased regulation of financial markets”. Sections 2 and 3 elaborate on this, in an effort to embed such questions into a broader, more fundamental concern.

The financial crisis has undoubtedly meant a shift in wealth from the developed western North to the Eastern and Southern regions of the globe. However, this broadly acknowledged point raises not a few questions, some of them being addressed in section 4. Finally, section 5 concludes, or rather, opens the way to more relevant, and difficult, lines of enquiry.

### **1. The crisis is not over yet.**

The first point to be left clear is that the crisis hasn't finished yet. A peak was reached in 2008/2009 but, to avoid a senseless semantic argument on the characterization of the word crisis, let me state that it continues to unfold.

As the 1929 “recession” only ended with the 2<sup>nd</sup> World War, from which a new economic-power reality emerged, the present crisis, like a milder tsunami, marches in, sweeping structures, economic agents and established arrangements in its way.

The “euro crisis”, the “US budget crisis”, “the high price of food and commodities in general” are all different aspects of the trajectory followed by *the crisis*.

It left open injuries that, respectively, date from the Maastricht arrangement, the profligate US spending, partially backed by the US dollar credibility, and the distortions in the food market, not the least caused by absurd protectionist policies and selfish hedging and storage strategies.

Like in any system, after each shock, its components and agents try to recover their previous positions, pursuing strategies or taking positions that would lead them to the initial, pre-crises format. This is evident in the solutions proposed and tools disposed for implementing them in the three faces of the crisis just mentioned. But they, and most of the nowadays other “crises”, need global though lateral, innovative solutions.

The euro crisis is a European problem indeed, however its solution shares common facets with measures that must be seriously implemented – and have not yet – after the 2008/2009 episodes. Moreover, it should take into account what its present state of flux

means for the rest of the world, even though in practical terms the actual shocks reaching economies like Brazil, for instance, are of low intensity until now.

Sentences as the above ones may lead some to think that I'm pledging for quick fixturs to mend each separate burst. Yes, but with an encompassing view. Not only this; crises imply pain. Sectors, corporations, groups of people are inevitably hurt. There is no solution without losses and cuts. The single-minded efforts until now have been, faithful to the resilient features of any well-established system, in the direction of restoring the traditional order, its elements and procedures. This unavoidably leads to away out that heavily hurts the less powerful, the less organized and less vocal segments.

It is hard to envisage a solution to the euro problem without boldly facing the situation of the banks in the euro zone that hold considerable amounts of rotten assets. Their situation may be streamlined either by rescue – and then funds must come from somewhere, as it has been pursued until now – or by controlled bankruptcy. In the latter, perhaps fairer approach, things could be much easier if, for instance, Greece quits the euro zone. Why stick to preserving a failed arrangement if a(n initially) more painful recipe, but hurting powerful agents who did wrong, would perhaps be wiser and socially more decent?

It is also hard to envisage a solution to the euro problem through half-baked concoctions that indirectly address the core problem, as it has been tried until now<sup>4</sup>.

Without moving from the Maastricht criteria to a sizeable common budget for the eurozone– the right way also to enable a co-ordinate unified issuance of euro bonds -, devaluing the euro and, very likely, reducing its members, the euro will linger on as an unstable, weak and troublesome currency.

It is hard to envisage a solution to US problems without fully addressing the limits of its projection of Power in the modern world. The troubled hegemon faces today a riddle similar to the one posed to the Roman Empire when at the heights of its expansion: how many legions could they support, without compromising the social and investment demands in the always restless and effervescent Rome? (Gaius Julius Caesar) Augustus (63 BC; AD 14), the shrewd risk-avertter first Caesar, had during his time traced the limits he thought wise for the Empire. Beyond the established borders, security would be assured by a host of client states and bold diplomatic achievements, the key one being a peace settlement with the

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<sup>4</sup>The last one, as of the week ending on July 22, 2011, being a modest version of the old “BradyPlan”, devised by US Secretary James Brady, for the huge Brazilian debt crisis, inspired in ideas by former Brazilian debt negotiator and Minister of Finance, Luiz Carlos Bresser Pereira.

Parthians (ancient Persia)<sup>5</sup>. Mr. Obama is doomed to do the same, at the risk of internal and external turmoil ...

This kind of bolder and more courageous approach, sometimes demanding creative, lateral thinking, seems to be missing since 2008/2009, being replaced by a sometimes excited and always shallow rhetoric on co-operation and dialogue –undeniably important behaviors – that has been delivering not much, and when it does, it is usually more of the same.

But it is not easy to open to a dark, in many ways unknown void a solidly locked door. As a result, we're caught in vicious circles of solutions, pointed out by the more perceptive critics.

From one hand, many agree that drawing on the less organized and poorer social classes to save the financial institutions (fis) is unfair and problematic, beyond the fact that this solution is usually accompanied by severe growth-reducing measures; but on the other hand, without quick fixes, too important fis may collapse, also spreading havoc to the economies and ... the poor. Half a dozen examples of this kind of dilemma can be produced<sup>6</sup>, as a sad illustration of the lack of alternatives brought by the lack of creativity.

Another feature this study group<sup>7</sup>is trying to address, and that is sometimes raised as an excuse for the present hard times, is the recurrent or oscillatory pattern of the crises in twentieth century capitalism<sup>8</sup>.

Without elaborating further, or getting to more technical details, one characteristic of oscillatory systems is that, contrary to very sharp but continuous changes – like in the celebrated stochastic process known as the Brownian Motion<sup>9</sup>–oscillatory trajectories change smoothly from peak to trough, the duration of each extreme being variable and possibly long.

Though the idea that we are still sailing the height of the crisis qualifies all the arguments in this paper, real oscillatory systems in nature hardly show a steady, constant trend. In reviewing J. Madrick's "Age of Greed: the Triumph of Finance and the Decline of America", Krugman and Wells (2011) point out that, as regards the troubles involving Citicorp (and usually caused by its own unbridled operations) a recurrent pattern is evident,

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<sup>5</sup>I owe this analogy to conversations with Carlos Ivan Simonsen Leal.

<sup>6</sup>Slavoj Žižek, in the first part of Žižek (2009), interestingly elaborates on the example given in the text; though I do not entirely subscribe to the solutions he later proposes

<sup>7</sup>I refer to the interdisciplinary group and the Lisbon meeting that motivated this work.

<sup>8</sup>Rui Malhó dwelt upon this during the Pre-Conference at the Lisbon Academy, see Chapter 8.

<sup>9</sup>In formal mathematical terms, the trajectories of a Brownian Motion though continuous are nowhere differentiable, being a non-trivial example of a function with such property.

with crises as the malaise of the seventies, the bailouts of 1978 (Chrysler) and 1984 (Continental Illinois), and the technology bubble of the nineties with its international unfolding. Only that each time the damage gets bigger.

Oscillations are usually either damped or amplified, leading either to a negligible or to an explosive behavior. The fruitless efforts to dampen the present wave, in dire neglect to the causes of its inherently explosive dynamics, are also a main contention of this text.

## **2. Vapid Rhetoric and the Quest for the Holy Explanation.**

### **2.1. The vapid rhetoric on greater regulation of financial markets<sup>10</sup>.**

There is no need to reproduce the several steps that led to the crisis bluntly evident and widespread during 2009. Early announcements can be traced back to 2007, at least<sup>11</sup>, while unfettered use and development of derivatives was growing exponentially.

As known, derivative products can be created nearly out of anything – from expected movements of the price of a share to a likely rainfall – and produce a cascade of potential debts whose primary source quickly becomes unfathomable. When tied to loans or mortgages, they get twice more explosive. Notable among these are the CDS – Credit Default Swaps, which transfer to third, fourth, and so on ... partners, an initial, concrete debt; usually large sums, not infrequently related to government backed operations.

If derivatives distribute risk – what, in itself, is not bad -, they at the same time spread it to otherwise safe markets. Banks, financial *boutiques*, private enterprises, local governments, almost everybody connected in some way to the global financial system freely indulged in the use of derivatives, many linked to the sub-prime loans, given the extent and pervasiveness of U.S. finance. German state banks, for instance, were big buyers of mortgage-backed products, marketed by U.S. banks, as well as of highly leveraged assets in weak Euro economies.

When the original risky loans started to collapse, the related derivatives went into default, and, like a castle of cards, also those agents who held them in exaggerate proportions. The rest is well known, from banks to economies and governments in trouble, from the U.K. and the U.S. to newcomers like Dubai, the Eastern European economies and, in a second move, to the Euro-zone.

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<sup>10</sup>This argument was initially raised in Flôres (2010a).

<sup>11</sup>In early 2009, Richard Posner (2009) already fully discussed the “crisis of 08” (and the title of his book was “A Failure of Capitalism” ...)

The first, overall reaction, but mostly in the advanced economies, was to blame the absence of control of a large share of financial operations – those with derivatives naturally included – and menace culprits with neither rescue nor sympathy. This was the rhetoric around the first semester of 2009 and, indeed, countries with tougher banking regulations, like Brazil and Canada, had coped reasonably well with the ill winds<sup>12</sup>. The IMF, which was ready to hibernate for lack of prospective borrowers<sup>13</sup>, rose back in glory, as a major player in the needed refurbishing of the international financial order.

But as the end of the year approached, and the crisis was however beginning to seem to be contained, the innumerable working groups and special meetings dispensed less caustic communiqués, as well as less orthodox ideas to fix, with rigor, the system. Not much did happen though. From the April 2009 London meeting of the G20<sup>14</sup>, to the April 2011 one, under the French presidency, a downward slope of non achievements or nearly irrelevant measures, with perhaps one or two exceptions, is manifest.

Out of the many factors that explain this fairly disappointing sequence of events, two seem important to understand.

First and foremost, the regulatory interests are not clear and involve goals that differ according to the position of the country in the world distribution of power. It is important to point out that less advanced G19\* economies, Brazil in particular, were deeply involved in the working groups. Though the crisis had treated them lighter, they truly believed that this could open the way to achieve a less wild global operation of the financial system, whose headquarters, as known, do not lie in their territories.

Secondly, a more conceptual issue plays a key role. By its very essence, of all sectors in the economy, the financial system is the one most difficult to control. In its modern *Gestalt*, it needs continuous innovation, unending creation of new products and strategies that will make room for arbitrage, the essential characteristic allowing for quick and huge profits. As long as a new product becomes widely known, and its related market then functions in a more

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<sup>12</sup>For Brazil, an account of how it faced the 2008/2009 peak may be found in Flôres (2010b).

<sup>13</sup>I draw, and not for the first time, this lovely image of international institutions never actually ending but, like big white bears, taking long hibernating periods, from Gary Hufbauer, from the Peterson Institute of Economics, Washington, D.C.

<sup>14</sup>The G20 was created in 1999, incorporating 11 big economies outside the G8 and with the aim of being the forum for discussing global financial issues, though in a less encompassing way than the one adopted in the crisis. It has a rotating presidency and meets twice every year. The European Union is the odd twentieth member, under the no-comments excuse that systemic issues oblige it to seat in this *group of nations*. In all kindness, and with due respect to the wonderful European project, I shall refer onwards in the text to the G19\*, to remind the reader of this subtle abuse of institutional world power.

orderly fashion, it can remain as an option for the risk averter, but no longer qualifies as the top asset that will make fortunes sway hands.

The above implies that regulation is doomed to apply to a well defined circle within the sector, while well-informed agents *outside the regulatory perimeter* will be busy creating new products and acting according to a fairly loose market discipline.

Before the crisis, commercial banks lay in the core of the regulated circle, with investment banks, hedge funds, insurance companies and all sorts of asset managers making for a huge army of well-informed, unbridled operators. As 2009 didactically showed, poor market discipline among the latter spilled over to the regulated, apparently safe circle, obliging governments to play an unusually active role to prevent catastrophe.

The area of the circle can, and very likely will, be enlarged; indirect controls may be attached to some outside. But reversing this pattern looks impossible.

Of course, the whole sector may be smothered and reduced to an improved, modern version of the old banking system, with not even sweeps allowed<sup>15</sup>. Though theoretically feasible, it is hard to believe this will happen, and the reason is simple: nobody wants it, or at least those who detain the power to do it.

The motives explaining this inner and now - contrary to the first point – nearly widespread resistance to such a drastic change are varied, but a main one is that the financial system, ironically, is the oxygen of the nowadays world economy. Despite producing extra fat for the “well-informed” group, it supplies capital for the major needs of a global economy. If curbed in excess, this supply will dry up and we shall be back to a more autarchic environment, with less world-encompassing projects and a much reduced flow of goods, services, people and ... funds<sup>16</sup>.

The special kind of activities of the financial galaxy *should then* be conducted under an enabling regulatory framework not easy to be designed. This also implies that, here more than perhaps any other sector, regulatory failure can be very distorting. For the minimally normal operation of the financial status quo, worse than not regulating may be excessive regulation that ends up by stifling parts of the system, while failing to be implemented and

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<sup>15</sup>By the *sweeps* mechanism, depositors are allowed to move their money from a standard account to an investment fund, bringing back each time only the amount needed to pay an incoming, specific debt. This simple mechanism, nowadays widespread, is fundamental to give investment funds scale for performing their various deals.

<sup>16</sup>And we are back to one of the vicious circles mentioned in the previous section ...



enforced in others. This ends by adding further costs to society and helping to discredit regulators, increasing the lack of trust in the system.

Discussing a new architecture for the system goes beyond the sheer financial narrative. It must eventually encompass the whole functioning of the present world economy, its production system and its trade and investment dimensions. It must face the issue that the Federal Reserve still is, but for the name, the world central bank. And this world central bank is located in the country where exactly some of the most radical changes must take place. The turn in the mood of the communiqués and resolutions, watched as 2009 went by, bears evidence on how this ticklish theme will essentially not be solved in the near future.

After the initial bold US and British decisions related to the first banks in trouble – and the boldest one was perhaps the Lehman Brothers' collapse, in September 2008 –, bailouts, funded by the taxpayers' pockets, conspicuously entered stage, to rescue, in a more or less sophisticated way other agents in distress. As a subsidiary proof of the main argument above, the fis revealed themselves too big, too enmeshed with the global economy to subsume. Their fall would precipitate that of factories, offices and small businesses; in other words, the loss of more jobs and ... votes. No wonder, one of the regulatory proposals aired – and still somehow under discussion -advocated the splitting of the big banks, so that in a system made of smaller units, bad behavior could be more easily punished with bankruptcy.

Concern with big banks or similar agents led to coining the acronym SIFI – Systemically Important Financial Institutions, but perhaps the real focus should be on the “SIFS” - Systemically Important Financial Sub-sectors, given the way how, through interconnectedness, leverage of a given sub-sector can spread damage over numerous institutions, independently of their size. Anyhow, either on SIFI, SIFS or “network crucial institutions”, the discussion is doomed to linger on for quite a long time.

Meanwhile, the basic pattern of the system, as outlined here, will remain untouched, and its key characteristics largely unaffected. Customized innovation and accounting creativity will only be spurred again by the new constraints, and the financial sector will thrive on.

Due to all this, emerging countries, that were not at the origin of the crisis and which seriously engaged in the G19\* efforts during 2009-2010, look unconvincingly at the whole present vapid rhetoric. Though coveted nowadays, as investment heavens and new sources

of prosperity, their voice is still limited. They perhaps would prefer to step aside of this *opera buffa*, risking very rapidly to become *tragica*; but they share a broadly common fate.

## 2.2. The Quest for the Holy Grail of Explanations.

Soon after the crisis had hit hard the main markets, many economists and commentators started to search for explanations for the (surprisingly unexpected!) catastrophe. The call by Queen Elizabeth II, from the United Kingdom, which is at the heart of the present Conference, is, at a first reading, a good example of a sensible question put by an honest, reasonable mind: Why did it happen? How could it be that nobody (particularly you, dear economists) perceived it in time?

Some savvy analysts, like Nouriel Roubini<sup>17</sup>, had warned about the looming dangers of the ongoing disarrays, but other bright minds, with the benefit of hindsight, turned to the task of finding *the explanation* to the events. Rajan (2010) and Reinhart and Rogoff (2009) are but two out of the interesting studies then launched, by scholars with undeniably solid knowledge.

At the same time, the quants themselves fumbled for excuses or rather theories that would either justify their behavior or transfer the potential blame to other instances of the complex engineering of modern finance<sup>18</sup>. In the midst of this trend, a work just recently delivered by Taleb (2007), regained some notoriety.

In the same vein, but with a broader view, Macedo (2010) tries to enlarge the portfolio of interpretations, by adding the groupthink effect and the precarious percolation of information and alert signals in complex governmental and financial institutions.

All these attempts add a piece of knowledge, sometimes even precious, though all suffer from an original sin. With different nuances, they provide explanations within the system, that share in their innermost core, either a full or a less-well perceived faith in the righteousness of the status quo, in spite of its several misdeeds, and an unquestionable will to restore the game, with due corrections, as it posed itself *before the crisis*.

I hope not to be usurping these authors' minds, or overstretching the reach of a textual and conceptual analysis, when I state this. But Reinhart and Rogoff (2009) and Rajan (2010),

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<sup>17</sup> Roubini was no newcomer to the study of crises, as many of his earlier works testify (see, for instance, Corsetti et al. (1999)).

<sup>18</sup>Rui Vilela Mendes produced, at the Pre-Conference, a well-organized and didactic survey of the main attempts in this line.

though providing good analyses and a few fresh insights, neither touch the heart of the matter nor offer really new and courageous routes to sail out of the stand still and its vicious vortices.

The situation is even worse in the case of the quants, who blindly operated trading strategies inspired in models from stochastic physics, backed by very debatable assumptions and logical arguments – as the absence of arbitrage –, at a volume and frequency that demanded a far more serious attention to the surrounding constraints. As for Taleb (2007)'s work, definitely well written and argued, its revived notoriety should largely be attributed to the ignorance the general public always had on deeper statistical ideas.

Moreover, stochastic processes, though allowing for fluctuations and even sharp swings, have trouble in portraying sudden and violent disruptions. Either they work under the stationarity and the, often disregarded, ergodicity hypotheses, which embody, in some way, past behavior, or they allow for non-stationarity. But non-stationarity still is a Pandora box of myriads of likely possibilities, the few tractable *representations* available<sup>19</sup> suffering from adequate treatment of disruptive, drastic effects. Superimposing jump or extreme value processes is an enlightening modeling tool – especially for value-at-risk computations, but does not account for an explanation.

The groupthink argument, originally raised by Janis (1972) in the context of foreign policy analysis, has the merit of bringing to the debate decision-making patterns akin to the complex operations at stake, beyond leaving more clear the ground for the identification of criminal, or at least extremely socially irresponsible behavior. The latter is usually circumvented in most explanations, but of utmost importance for streamlining several facets of the present system.

In Janis's own view, in the groupthink process, group norms and patterns takeover, resulting in deeply flawed decisions. The group is valued above the quality of information processing, dissent is discouraged if not suppressed, assumptions by the leader or highly regarded advisors or technicians go unquestioned, and all kinds of biases influence policy. The result is what he termed "premature consensus" and this strongly seems to have been the case in both complex firms and the supervising authorities.

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<sup>19</sup>Of which, the rather local, not to say often silly, "unit root hypothesis" experienced undue notoriety until nearly a decade ago

But groups in charge of so important operations do not live in a cloud: they have directors, supervisors, key managers who must account for their behavior, and this makes for the need to pursue the groupthink argument in the juridical, eventually penal direction. Moreover, as researchers in international relations duly show, Haney (1994), Schafer and Crichlow (1999, 2002), the groupthink hypothesis must be subject to proper statistical tests, and they are wanting in the crisis study.

The percolation idea is qualitatively appealing. However, the sophistication of its related theory<sup>20</sup> makes any test of it as one of the contributing factors for the crisis a very hard though not impossible task.

The fact that each approach adds one or several grains of insight is an indicator that perhaps this explanatory Holy Grail that will shed light on every dark cause of the crisis does not exist. From the inner operation of the system, anchored in more or less historical, economic, behavioral or statistical arguments, and drawing on the power of fast connectivity, or on the vagaries of the Fed's monetary policy, one can at best produce chains of *causal relations*, but **the crisis** as a global entity is more than these identified sequences of failures. It lies within the system itself and signals that a major transformation is in progress.

By stating the last paragraph I do not want to blur the different serious attempts above in a skeptical no-man's land, where no explanations are possible or every explanation is good. They have their place, though limited. To fully understand the crisis, its ongoing process must continue to be observed, and its more remote impacts detected. That's what I try to sketch in the next two sections.

### **3. Talking about real power.**

Though informal calculations show that the crisis has meant more than a blip in the continuous money flows from the western North to the East and the South (less, in the latter), more than increasing the transfer rate, it has exacerbated the fragile economic conditions in the US and Europe. With countries like China and Singapore, passing by Japan, Taiwan and even Thailand, stuffed with dollars, US Treasury Bonds and euros in their safes, the credibility of these key currencies is perhaps more than ever at risk.

However, efforts towards diversification of these currencies portfolios are still in the beginning, and the range of alternatives cannot be said to be very attractive.

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<sup>20</sup>See Stauffer (1985), for a sound introduction to the subject.

Beyond a redistribution of power – which, by any case, was and is taking place; the question being at what pace –, the crisis has increased inter-dependency and added a new twist to the dollar and euro problems. Among the trio formed by these two and the Chinese renminbi, competitive devaluations are taking place in a more or less disguised way. In the face of the US quantitative easing and the subtle though firm Chinese policy, the euro has been more resilient, though its devaluation seems a matter of time. The outcome of this silent war may have unexpected changes in the flow of funds, attenuating or increasing the transfers to the East.

But power can also be ascertained by the rule-making capacity of the different actors, and what has been seen until now is the ‘classical US-western Europe plus standard allies’ order sticking to its long-acquired positions.

If the optimistic regulatory frenzy, prevailing during the G19\* meetings at the height of the crisis, has considerably faded out, established powers, through dominant positions at the IMF, OEDC and other international forums or intelligence generating institutions, are recovering leadership in the main themes and fashioning both the rhetoric and the proposals to their basic interests and needs.

The greater awareness triggered by the crisis, that other voices and regions should have more space, is still far from producing more sensible and sustainable changes. Besides the subdued currency war, a regulatory war – involving state and powerful private actors, Bütte and Mattli (2011) – will progressively gain momentum.

Enlarging the strictly financial perspective, trade and investment flows, ownership of, as well as research and fresh investment in, the different strategic or leading economic sectors, and the associated required educational and innovation skills, are movements that can add serious constraints to broad statements on power shift.

Authors like Mahbubani (2008) alert that Asia has presented a remarkable progress in many areas. A recent study of the Royal Society (U.K.)<sup>21</sup> has shown that countries like Iran and Turkey have been experiencing surprisingly fast achievements in most standard science & technology indicators. China, in its turn, has been pursuing a bold strategy in science and technology to match or surpass the US by 2020, Angang (2010; particularly chapters 5 and 6).

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<sup>21</sup>Co-ordinated by Sir Chris Llewellyn Smith, University of Oxford, and made public in the first quarter of 2011.

Notwithstanding, innovation cores and educational excellence spots are still so abundant in the advanced western countries that they may secure them, for quite a time, if not complete leadership at least a highly competitive position. They still hold a considerable chunk of assets and human capital and, most specially, innovation capabilities, to guarantee them strong positions in this field.

Moreover, in spite of the shifts eastwards, roughly around 2/3 of the international market for goods and services is in the US and the EU and no economic actual or aspiring power can do without access to these key markets. The normal and healthy operation of the latter can be paradoxically considered a pre-requisite for the very changes in their own predominant positions - and we fall in another of the vicious circles announced in section 2.

Behind economic power lies **Power itself**, as embodied in sheer military and offensive capabilities. Actual control, in *real Politik* terms, boils down to two dimensions: control of governance of key international institutions and systems and military power.

The heightened debate on defense expenditures in the US – for sure, aggravated by the financial crisis –, together with more assertive positions by giants like China and India, or more independent actors like Pakistan, Iran and even non-opponents like Turkey or Brazil, is progressively obliging it to glide from its hegemonic status to a shared sovereignty one.

The crisis has definitely put more pressure on fiscal problems that were looming since quite a few years in the US and the EU, and the budgetary constraint may lead to a manifold of developments, some out of the strict realm of economics. Reduced US military clout may be a significant one. This, in turn, may eventually entail a further weakening in its economic position.

A weaker, or simply more contained US triggers unpredictable developments, from Africa to the large Middle East, passing through the old Soviet Union states and closing the loop in the Caribbean. Power, as in the outcome of a likely currency war, may swing to and fro for quite some time. Before a new, shared equilibrium is achieved, tensions and undecided situations, if not local conflicts, will take place.

Perhaps the most dramatic example in the above context has to do with control of the seas. To put it briefly, since the end of World War II the US has provided, as a kind of free public good to all other nations, the security of the seven oceans. Not that this would not suit US commercial and strategic interests, but it is undeniable that any given country enjoyed safe sea lanes for its trading vessels throughout the globe.

However, China and India are pursuing technological developments, intensive training programs and foreign buys aiming at considerably increasing their sea power, to protect what they consider to be their “interior seas”. To this it must be added the growing instability in the North of Africa, reaching the obscure (to many) island state of Bahrain, which simply hosts the Fifth Fleet, a key US projection in the Persian Gulf and actually in the whole Indian Ocean.

This by no means implies that US sea-power will vanish tomorrow or that China or India will, in the short run, take over responsibilities up to a point further from their coast<sup>22</sup>. Notwithstanding, the speed of these changes will be conditioned not only by that of revamping and upgrading in the two Asian navies, but also by the pattern of contractions in the US budget and the recovery path of its economy.

World governance, broadly speaking, is in a state of flux, but north-western powers still hold a mighty grip in most niches. This is true of the World Bank and the resurrect IMF, as mentioned above, and also of the present arrangement of the UN Security Council. In spite of being increasingly contested in all these assemblies, the established powers still show a most of the times consistent stance that secures their combined maintenance of key posts<sup>23</sup>.

Anchored in the top positions they control, developed economies continue to be the major source of international regulation, spreading their (technical) soft power to all corners of the planet. The EU may be suffering from a serious illness in the euro-zone, but this did not either avoid or stop its nearly spreading havoc in the international chemical goods markets through its REACH (Registration, Evaluation, Authorization and Restriction of Chemical Substances) initiative<sup>24</sup>. Probably and unfortunately, “REACH” will trigger a little trade war when other countries start to implement retaliations to its over-doings.

From turf wars around Security Council membership to those for the control of international bodies like FIFA and the Olympic Committee – that oversee, directly or indirectly, fortunes related to their events – the advanced economies are in good and combative shape to guard their advantages.

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<sup>22</sup>Though, for authors like Valencia (2010), the situation is already approaching high tension.

<sup>23</sup>A brand new illustration of this has been the replacement of M. Strauss-Khan by Mme. Lagarde, also French citizen, in IMF. Emerging and developing nations, as many times happens, were unable to consistently present a competitive alternative.

<sup>24</sup> Actually Regulation EC 1907/2006, which entered into force (first phase) on June 1, 2010.

Nevertheless, in overall terms, and as regards tendencies, the dominance here outlined is less stable than it seems. The crisis, by shortening the availability of cash and bringing to light shakier aspects of the western governments and their associated welfare & consumption states, has opened cracks in the building. Areas where trouble was expected in a later future now seem closer to become tension spots.

#### **4. The new actors.**

An interesting contrast with the previous line regards the so-called emerging markets, which are far from a homogenous group.

Until when will they continue “to emerge”? and emerge towards what? Taking the BRICS, for example, can one envisage in the coming 20 to perhaps 50 years a world in which a “BRICS market” would be sustainable without the US-EU consumers? In larger time-horizons this may come true, with a vigorous Africa, greater production diversification and income equality in the Middle-East economies, and continually rising living standards in South America, Southeast Asia and the whole Chinese periphery. But we certainly are still far from it now.

However, having started nearly as a playful clustering of a bunch of large countries, the BRICS exercise has been quietly delivering a novel message<sup>25</sup>. In a half formal but regular basis, these big economies have been holding meetings, talking to and getting to know each other, and calmly searching common views and positions on selected world issues. In a few instances, like in the recent Libyan affair at the UN, they worked in a concerted way.

This practice signals perhaps a new road for dialogue in the international arena that might bear some creative alternatives. In a similar mode, the loosely connected but quite efficient ASEAN+3, in spite of the latent „fear of China“ of its members, is worth analyzing. And in a more modest, though culturally very appealing way, the Community of Portuguese Speaking Countries (CPLP) may stand as another interesting arrangement. Emerging countries in general also became more aware that *ways of reducing their dependence on advanced economies are worth looking for*.

Concepts like South-South trade and technological co-operation, or stronger cultural links with Arabian and African roots, that a decade ago were almost subject of mockery by

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<sup>25</sup>For an earlier view see Flôres (2009).



the international community, proved of value when the crisis impacts reached trade flows. Though not a panacea, such measures will be more looked for, increasing tension in the traditional western partners.

Before discussing these strategies, one must however ask not only whether the present “emerging dynamics” is going to be a long-lasting effect, or whether the enhanced positions of most emerging countries are sustainable, but rather whether such dynamics will gradually translate into a more equitable world development pattern and income distribution.

Taking the example of Brazil, the “new middle class” created after 16 years of macro-economic stability and a continuity of more assertive social policies cannot vanish in the next few years. In spite of the fine moment the country is experiencing, this is by no means certain yet. The same applies to Peru and Colombia, in South America, to the promising African economies and even to such a complex socioeconomic experiment that is the insertion of huge fractions of nearly 2 billion people into a capitalist and consumption society in China.

If changes are not stable yet, the brighter look of the southern economies is also partially due to a comparison effect. The relative decline and depressing aspects in the developed economies make investors and analysts alike to turn their views to the emerging markets.

Ways to convert this favorable mood into a permanent achievement depend, ironically and again, on the evolution of the crisis itself. Pursuing the pre-crisis South-South strategies, enhancing the establishment of new markets and the creation of novel channels of production and trade may prove of great help.

Brazil, with the aid of official funds, has been transferring technology to African and Central American countries in order to create an international network of ethanol producers that would form a sustainable global ethanol market. Similar ventures may be done for other commodities and energy goods.

As mentioned before in this section, flexible forms of association, in which neighborhood is not a pre-requisite anymore, can direct co-operation and joint ventures efforts. With the BRICS at one extreme, as a group the main objective of which, in the near future, is to create opportunities for mutual knowledge and understanding, tapping the ground for common international positions, associations like the ASEAN+3, or the CPLP community - where synergies can be created by joining countries in three different

continents, with an important cultural intersection - can bear more rapid fruits and profit from the good winds.

Unavoidably, this will eventually overflow to the international organizations where the struggle for greater control seems a sure event. Brazil and India – together with, in the “other side”, Germany and Japan – have already clearly stated their intentions as regards a permanent seat in the Security Council. If Africa continues in the positive trend that at least half of its nations are treading, they will also soon demand more participation in international decisions.

If the crisis gave other actors more scope for showing themselves up, it will also – by the logic and mechanisms discussed in section 2 – make some incumbents more adamant to give up their sometimes last share of power. Emerging powers, to take full advantage from the crisis, by asserting their new realities and contributing to changes in the present global order, must be better organized among themselves.

## **5. Conclusions.**

The crisis has drawn attention to the fact that not only emerging powers but other regions of the world as well may be offering different development models and may constitute into alternative, in some dimensions more positive agents, in the conduct of the present stage of globalization.

Notwithstanding, the traditional western powers have not lost a large amount of control of the world economy. Since the crisis has become less acute, these very powers have sent clear signs that, in what really matters – like key world decision making, or strategic rule-making – they will not concede much, at least, much less than what was at some moment (during the recent peak) expected.

Up to now, no region or group of nations has coined up fully new and innovative answers to the disarray speeded up by the ongoing crisis. No leader, nation or supranational entity has had the courage to either deepen established practices or break with them, in an attempt to produce, one way or another, a bold solution, a new reality. In spite of better perceived and accepted, those different development models and alternatives do not make up either for a comprehensive answer to the present state of affairs. To carry on is to hesitate at opening doors to the unknown, is to remain trapped in a vortex of vicious circles created by the very system we are in.

And the crisis proceeds, reallocating world power as in a Hobbesian anarchy.

It is difficult to foresee smooth developments in the near future. On the contrary, multilateralism seems to be losing ground to unilateral action or bilateral arrangements. More or less disguised currency wars may lead to serious disequilibria, and turf wars may become more frequent, with motives ranging from securing captive markets to control of specific commodities and energy goods, or targeted regulatory frameworks.

As economic policy becomes even more involved with defense and security affairs, the feedbacks from each side to the other seem likely to keep dissent and animosity high, rather than contributing to peaceful and constructive approaches. A more trouble-prone world may be easily expected. The path seems explosive.

Much work is needed to survive in the coming times.

## References

Angang, H. 2010. *China in 2020: A New Type of Superpower*. Washington D.C.: Brookings Institution Press.

Büthe, T. and W. Mattli. 2011. *The New Global Rulers: The Privatisation of Regulation in the World Economy*. Princeton and Oxford: Princeton University Press.

Corsetti, G., P. Pesenti and N. Roubini. 1999. The Asian crisis: an overview of the empirical evidence and policy debate, in P. R. Agenor, M. Miller, D. Vines and A. Weber, eds., *The Asian Financial Crisis: Causes, Contagion and Consequences*. Cambridge, UK: Cambridge University Press.

Flôres, R. G., Jr. 2010a. Pasando revista al 2009: el año en que murieron las ilusiones, in F. Fàbregues, coord., *Anuario Internacional CIDOB – Centro de Estudios y Documentación Internacionales de Barcelona 2010*. Barcelona: CIDOB Edicions.

Flôres, R. G., Jr. 2010b. Country Report: Brazil, in H. Hartmann, managing ed., *Managing the Crisis: A Comparative Analysis of Economic Governance in 14 Countries*. Gütersloh: Verlag Bertelsmann Stiftung.

Flôres, R. G., Jr. 2009. Brazil, the BRIC and the international crisis – A short essay. *BEPA Monthly Brief*, Issue 29, September; 9-11. Brussels: Bureau of European Policy Advisers.

Haney, P. J. 1994. Decision making during international crises: a reexamination, *International Interactions* 19; 177-91.

Janis, I. 1972. *Victims of Groupthink: A Psychology Study of Foreign Policy Decisions and Fiascoes*. Boston: Houghton-Mifflin.

Krugman, P. and R. Wells. 2011. The Busts Keep Getting Bigger: Why? *The New York Times Review of Books*, available at the web, July 14, 2011.

Macedo, J. B. de. 2010. Global Crisis and National Policy Responses. *Nova School of Business and Economics Working Paper* n° 546, March 2010. Lisbon: Universidade Nova de Lisboa. [also published in *Ética, Crise e Sociedade*]

Mahbubani, K. 2008. *The New Asian Hemisphere: The Irresistible Shift of Power to the East*. New York: Public Affairs.

Posner, R. A, 2009. *A Failure of Capitalism: the Crisis of '08 and the Descent into Depression*. Cambridge, US: Harvard University Press.

Rajan, R. G. 2010. *Fault Lines: How Hidden Fractures still Threaten the World Economy*. Princeton and Oxford: Princeton University Press.

Reinhart, C. and K. Rogoff. 2009. *This Time is Different: Eight Centuries of Financial Folly*. Princeton and Oxford: Princeton University Press.

Schafer, M. and S. Crichlow. 1996. Antecedents of groupthink: a quantitative study. *J.of Conflict Resolution* 40 (3); 415-35.

Schafer, M. and S. Crichlow. 2002. The process-outcome connection in foreign policy decision making: a quantitative study building on groupthink. *International Studies Quarterly* 46 (1); 45-68.

Stauffer, D. 1985. *Introduction to Percolation Theory*. London: Taylor and Francis.

Taleb, N. N. 2007. *The Black Swann: The Impact of the Highly Improbable*. New York: Random House.

Valencia, M. J. 2010. The South-China Sea: Back to the future. *Global Asia*, 5(4); 8-15.

Žižek, S. 2009. *First as Tragedy, then as Farce*. London and New York: Verso.



## Chapter 5

### **The Role of Organization and Management in the Financial Crisis**

*José F P Santos*

1) If the Queen had asked me why no one had seen the financial crisis of 2008 coming, I would have replied that those whose actions made the crisis real didn't understand what they were doing until it was too late. At the same time, observers who might have foreseen the crisis failed to view the actions of those who made it real in a global context. The crisis resulted from the actions of several financial firms and their management. I will refer to such firms henceforth as “GS”.

2) Of course, this does not absolve individuals and nations of blame. Surely individuals acted with guile, and nations or groups (such as bankers or derivative traders) acted under a particularly harmful form of “group think”. Nations and individuals also acted in the absence of mutual understanding, evoking the worst of “together alone” (using JBM’s expression). These actions created a system failure far more serious than anything current global governance safeguards could prevent.

3) I have not conducted a study of any specific GS and its activities over the last two decades, but I did follow such financial firms in the media, and I had many conversations on this topic with colleagues at INSEAD and MIT Sloan and with acquaintances in Wall Street and the City. I can make informed comparisons between a GS and global companies that I have studied, such as IBM or HP, General Electric or Siemens, General Motors or Nissan, Nestle or P&G.

4) The top executives of many global companies have a concept of the term global that was shaped in an age of a non-global world or a world that was in the early stages of globalization. Such a view is flawed. These managers see global as something important for revenue growth overseas or having to do with the universal appeal of their brand or product. In fact, what global is really about is interconnectedness, interdependence, and integration. A global market does not make a global world. The specific value of a geographic portfolio is null in a globalized world. Indeed, the higher the degree of globalization, the higher the

overall level of uncertainty – not just generalized uncertainty, but namely administrative uncertainty.

5) My hypothesis is that as the various GS engaged with other similar firms and with clients around the world in large flows of financial products—mostly of the acclaimed “innovative” kind (read, some sort of first, second, or nth-order derivatives)—in different and dispersed organizational units and levels, such firms and their top managers were not aware of the higher administrative uncertainty and huge risk the whole thing posed to them, directly or indirectly.

6) I am not speaking of the enterprise risk models that missed the interdependencies across different business units, nor about the inadequate and possibly illegal processes of subprime mortgage origination and approval, nor about the incongruence of allowing different business units in one firm to deal “against” one another. I am talking about the huge, compounded interaction effect of unwise decisions and globalization.

7) It seems clear to me that the top managers of GS were not simply ignorant of the real impact of globalization. They also led firms with improper governance. And they were objectively incompetent themselves – not because they were “greedy” but rather because their remarkable (but parochial) political skills and their successful (but parochial) careers took them to the top of large global firms, while they remained ignorant of what “large” – not to mention “global” – means to an organization.

Succeeding in complicated financial deals is not tantamount to managing complex organizations effectively.

8) There are two more matters to add here, related to managerial behavior and organizational learning. At the firm level, I can’t help but notice that some of the most influential investment and securities firms had been private partnerships for many years (their days of glory?) and recently became public companies (Goldman Sachs, for example, went public in 1999. The New York Stock Exchange became a public company in 2005). If a GS didn’t have to grow, grow, grow the top line (a condition known as “stock market oblige”), would there still have been the frenzy for “innovative” products? If AIG had been privately held, would it have allowed a few employees in London to bet the owners’ private fortune? Internationalization and globalization can produce very tough moments for companies and

their management teams, which must operate in conditions of high ignorance and high uncertainty.

Going through globalization under the scrutiny of a stock market, which itself is not yet used to globalization, is a very difficult proposition. I would argue that if a public company wants to globalize, it would do better to go private first, globalize, and issue its IPO after it becomes global.

9) And then there is the individual manager level. We have seen over the last couple of decades that vast wealth was hastily amassed by many of the top managers of GS, as well as managers and experts of the units of GS. We don't really know how having made hundreds of millions of dollars affects a manager or the organization the manager manages. And if we have a number of such nouveau-very-rich managers as the leadership team of a global firm, we know little of what that implies for the firm.

My hypothesis is that such nouveau-very-rich managers exhibit a much higher agency cost to the firm than what conventional agency theory would predict.

Conventional stock options and similar "alignment" incentives simply become dysfunctional after a certain level of accumulated benefits – if they are ever functional at all.

10) What is remarkable to me is that I have met over the years several top managers and leadership teams explicitly aware of what globalization and global integration really entail and who were implicitly capable of addressing the shortcomings of "together alone" at the level of their companies. I've seen the equivalent of "culture-based multilateralism" and suitable levels of "mutual knowledge" in several companies. Examples include Nestle, IBM, Renault-Nissan, and several others. Interestingly enough, such managers and organizational capabilities may somehow be absent in the financial sector – or so it seems.

11) Why would that be? We know that the financial sector was probably the first sector to become "global", but in the "global market" sense (one market, one product, one set of rules) – or "global as universal." In many other sectors (e.g. cars, food, IT services), the quick failure of the "global product" vision gave rise to the understanding that what globalization really brought was global production and global delivery for superior efficiency. Managers in these sectors learned that globalization was about creating interdependent (and differentiated) units across countries, not global clones. Profitability would be higher with this kind of globalization, but so too would risk. Managers in these



sectors took risks into consideration, although the recent Japanese earthquake/tsunami showed that even relatively simple global supply systems are anything but surprise-free.

12) My point here is that the speed of financial “globalization” was too high (and too successful for a while) to show and teach managers of financial firms and regulators how to take globalization into account in corporate governance, in managerial processes, and in executive development at GS.

13) Another factor may have also played a crucial role in preventing managers in GS from understanding what GS was up to. I refer to the virtual nature of work in many of the relevant GS units, say, those involved with “innovative” (and complicated) products, such as structured finance or certain derivatives and swaps.

14) The radical evolution of IT over the last few decades made financial products and the respective operations “virtual” in different ways. Those involved in trading or operations work virtually. They are dispersed and communicate mainly through technology. (In many respects, even a modern trading room is a place where traders are physically “together” but “alone”.) Virtual work still suffers from the “liability of newness,” but it challenges us well beyond that.

15) Workers and managers in virtual work have only indications of their colleagues or counterparts (e.g. a voice, an email). Humans have not evolved, individually and socially, to cope well just with indices of one another. And “trust needs touch” (as Charles Handy put it). We know that trust is a central issue in virtual work, and too much trust (with lack of control) or too little trust (with lack of cooperation and ineffective coordination) produce very poor performance from otherwise capable individuals. (Even the infamous case of Barings occurred in Singapore, very far from London, in a classic combination of misplaced trust and failed control-at-a-distance).

The trust issue may be compounded if the object of work is digital (“invisible”) too.

Ex-ante honesty combined with lack of informal and formal controls may well turn into ex-post malfeasance and catastrophic or quasi-catastrophic behavior (the more recent cases may well fit here).

16) But in the case of financial products, namely in the case of “innovative” finances, it is the very product that is “virtual.” An old-fashioned loan was also a representation (a piece of paper), but at least it was physical (we are analogue beings after all) and it had a

referent (the money used to buy a given house, for example) – and therefore the representation could be indexed. (There are good reasons why traffic controllers use both very modern IT and a piece of paper when “passing” the flight of a plane to the colleague handling the next level or approach distance.) A complicated, multilayered structured “paper” is still a contract and is meaningful, but it is largely symbolic and without a referent. No one really knows what it is about, really. Using digitized symbols alone is a bit like dealing in pure mathematics: One can lose track of the real world. People who are required to function under these conditions find that the virtual nature of their work becomes real to them. They believe that the rules that govern the symbols are those that govern or should govern the real world. Such rules become a new ethics. Immersed in a double-virtual world, with virtual products and virtual work, the modern banker or trader becomes lost. Viewed from the outside, the collective performance of these individuals can appear crazy or dishonest or both. Speculation that executives of banks didn’t understand the formulae of structured products or complex options seems a bit much to me. I would offer the proposition that such executives were confused with the purely symbolic nature of such products. (There is incidentally some very recent work out of Stanford of similar issues in the context of engineering work.)

17) There are many and varied elements we need to consider and include in our tale to our (virtual?) Queen if we are to notice the next crisis or, even better, to make it unlikely. Such elements should include the organization and management of financial players.



## Chapter 6

### A Cell Biologist *Naive* Approach

*Rui Malhó*

#### 1. Prologue

By the title given to this text it is easy to realize that the intention is not to provide a deep biological analysis to the economic crisis. The aim is only to discuss some concepts of organization of biological systems and extrapolate to the observations and comments that I have been experiencing while spectator interested in economic models; hence the naïve approach. Nor was intended to make a comparison with evolutionary mechanisms; this comparison, perhaps the strongest link between economists and biologists, has been the focus of numerous studies and critical analyzes to easy extrapolations<sup>1</sup>.

I hope, at best, to stir up a debate with new (distinct?) views on an issue which is cyclical – the emergence of perturbations (crisis) in a system – and contribute with some possible answers diverting from a neoclassical perspective<sup>2</sup>. There is also no pretension that these answers (actually, more like hypothesis) are regarded as solutions; if something of more conclusive this text can transmit, is that in a complex system there is always variability and thus any response implies a risk. Similarly, there is no such thing in the text as an assessment about what is the best model of economic development; only the exact (and non-existent) knowledge of all the system settings could predict the winner of "the fight of the century"<sup>3</sup>.

#### 2. Why have people not seen the crisis arriving?

I believe that the answer to this simple question is very well identified in the contribution of José Fernando Santos (JFS) – causers and regulators were so "close" to the problem that it went unnoticed or of low-risk, as noted by Rui Vilela Mendes (RVM). The basis for such alienation have not necessarily to do with greed or other wrongdoing of (or dictated by) human behavior<sup>4</sup>. There are numerous similar examples, some of trivial consequences, others

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<sup>1</sup> Ex: "what economists can learn from evolutionary theorists" [<http://www.mit.edu/~krugman/evolute.html>]

<sup>2</sup>Rational individuals make informed decisions resulting in collective behavior that can be modulated

<sup>3</sup>"Fear the Boom and Bust" - Hayek vs. Keynes

<sup>4</sup>The simple "trade" concept of Adam Smith seems clearly outdated.

with results as dramatic or more. In all cases we can argue that there is the same neuroanatomic basis, a cognitive bias<sup>5</sup>.

But even in the event of errors, be they a risk assessment, in the architecture of a system, or in the expression of a gene, the consequences are not always devastating. In reality, in the vast majority of cases, errors are dissipated (cancelled) by the system properties (e.g. auditing, threshold detection, proof-reading enzymes). Consequently, these errors go unnoticed or cause only minor and transient perturbations.

Why is then, that after perception of a stimulus, the same mechanism can generate responses of such different magnitude? The local conditions in which, and on which, these mechanisms are acting. A certain signal that is perceived by an organism (e.g. cell, financial institution) propagates in a way that depends not only on itself, but also on the distribution and activity of transmitters and receivers of that signal – the network. Making use of an old biological analogy<sup>6</sup>, this network can be seen as a surface composed of hills and valleys. The hills and valleys of this surface are subject to continual changes in position, size, and depth as external and internal signals vary in intensity and quality from minute to minute. Modifications in a single signal can tweak the surface into a new shape. The signal pathway, visualized as a ball tracking across this landscape, must continually change routes as conditions change so that it ends up at the same place and thus achieves the objective of a similar response. Once a response is initiated, signal perception is altered and the surface topology changes. If a good network of cross information and mechanisms of self-control are present, the organism limits an escalation in the progression of signal strength so as to reduce the likelihood of damage. Taking this analogy to the limit, we can consider to be in the opposite of the "together alone" argument presented by JBM. This "network" allows one to modulate the magnitude of responses within parameters that, taken as a whole, the organism understands as acceptable (below a certain threshold). The "butterfly effect" is not deleted but it becomes highly unlikely. As mentioned in point 4 of JFS, the emphasis here is on interdependence (or integration), not in universality.

These facts can help us to interpret the causes which led to the event but do not provide an easy recipe for the prediction of future events. Continuing with the analogy to biological

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<sup>5</sup>Cognitive bias can be defined as the tendency to commit systematic errors in certain circumstances based on mental processes (e.g. perception, memory) rather than evidence.

<sup>6</sup> Waddington, 1957, *The Strategy of the Genes*

organism, one can say that the strategy is that each component of the system collaborates actively with all others sharing information for the organism benefit (symbiosis) and not something that will give it a competitive advantage to the detriment of other components. Making the parallel with JFS, the specific value of a geographic portfolio is perceived as null in a global environment. However, if this reasoning is taken from the organism to a supra inter-organism level, we find in nature evolutionarily successful interaction phenomena such as parasitism and commensalism. I would argue that, from a social point of view, these phenomena are morally indefensible and therefore will not advocate any strategy based on them. But it is irresponsible to ignore their existence and the inherent issue of the "prisoner's dilemma", an all-time favorite of game theory. In fact, in Chapter 4, Renato Flores states that *"multilateralism seems to be losing ground to unilateral action or bilateral arrangements"*.

### **3. Strategies to avoid future crisis?**

Considering the thoughts outlined above, we can infer that the obvious is to propose that the different Member States and institutions agree on a larger system regulation; reducing the degrees of freedom, the risk is reduced. Two questions then arise: (1) how to enforce regulation? (2) what is the extent of the regulation one shall impose? A regulatory agency is in danger of becoming too close to the issues it is supposed to regulate and thus we return to the starting point. A regulation that is too strict (tight) will prevent the system dynamics and reduce its evolutionary ability becoming (politically) unsustainable.

A possible alternative, despite a high degree of "wishful thinking", is the greater sharing of information between the various organisms with responsibilities in regulation cooperation.

The availability of this information would help the governance of the different institutions, global or local, public or private, and could contribute to minimize the difficulties mentioned by JFS on managers and CEOs (points 7-9).

The accessibility of key sets of data and its developments would also allow a better handling of the time factor. A system with strong interdependence among its components can get a better [efficiency/response time] ratio which is essential in periods of rapid changes such as the adaptation to new environments or the emergence of a global market (see point 12 of JFS). And simultaneously diminishes the need for an (unlikely) flawless leadership. The truth is that the world is too complex and changes too quickly to depend only on talented

leaderships<sup>7</sup> or reductionist dicotomic choices such as “Hayek vs Keynes”. Bear in mind that one of the recurring criticisms to the EU's response to the debt crisis is precisely the difficulty to see coordinated actions.

A major obstacle to this proposal is that in this case, the information itself acquires an intrinsic value and becomes a transactionable good in the passage of universality to interdependence. An obstacle which is mostly political! As mentioned by RF, “as economic policy becomes even more involved with defense and security affairs, the feedbacks from each side to the other seem likely to keep dissent and animosity high, rather than contributing to peaceful and constructive approaches”. A second type of obstacle is the (wrong) perception that over- specialization ensures (or at least facilitates) success. One frequently hears young researchers and influential commentators minimize the relevance of non- applied research and interdisciplinary work based on rapidly changing or outdated paradigms. Versatility, creative and critical thinking require not only knowledge in the so-called "hard" sciences. A background in history and philosophy (for example) is essential to deal with a competitive and constantly changing environment.

One final issue related to this topic is the absolute need to internalize the concept that no system can maintain perpetual expansion/growth. In the case of an economy such as the Portuguese, the probability of getting for several consecutive years, GDP average growth rates of ~2 % is extremely low although it is tempting for a political agent to profess "yes we can". Any dynamic system deviates from equilibrium experiencing oscillations, more or less regular, more or less intense. To ignore this fact and/or use this premise as a way out of a crisis is illusory or malicious.

#### **4. Dealing with the crisis**

I believe that regardless of the political spectrum to which one belongs, even an optimistic perspective cannot deny that this crisis is not an ephemeral perturbation of the system. It is actually plausible, as proposed by RF, that it will result in an organizational change. Not a mere replacement of dominant powers but the emergence of a "second world" (Parag Khana).

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<sup>7</sup> *A dynamic “turn-over” of the components is essential in biological systems.*

In the short term, dealing with the crisis implies recognizing its global impact. The events of recent years suggest that most governments admit so but does not act accordingly. Several reasons can justify this procedure: [1] Lack of appropriate tools (and policy makers) to generate an appropriate response; [2] Fear of adverse political consequences for their own interest; [3] Intentional perpetuation of a "systemic stress" in order to induce an organizational change.

Aside the political implications that determine the response to the above listed options, it is clear that the impact of a stress scenario (crisis) can be quite asymmetric depending on the size and positioning of system components. But it will always exist! This is particularly relevant in the current situation where the crisis is essentially of intangible nature ("ratings", bond debts, etc). Using once more the analogy of the Waddington landscape, it is crucial to establish, with the maximum possible accuracy, our "location" in the system (geopolitical region), interaction networks (privileged partners), specific characteristics (language, history), and resources (goods and humans). Without this, there is a risk (temptation?) of importing well-succeeded models, tailored to specific circumstances, but whose transposition will prove ineffectual or even counter-productive. The development and application of good test-stresses is fundamental here.

Recently, and perhaps on a non casuistic manner, various sectors of society, advocated a (re)approach to the Sea<sup>8</sup> and the deepening of relations with the countries of the CPLP. It is an idea rooted on our history and which seems to gain some grounds considering the European crisis and the emergence of the so- called "second world". This expression of a collective intelligence, probably has its parallel in the seeking and obtaining resources for biological systems; in the absence/shortcoming of a energy resource, the metabolism is changed to process another that is (became) available and that the system already has mechanisms to metabolize. In fact, considering the specificities of Portugal, perhaps the best way to deal with the crisis is summed up in the words of the philosopher Agostinho da Silva – "bringing the world to Europe, as once we brought Europe to the world"

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<sup>8</sup> Many events and political decisions after the original writing of this text reinforce such idea.





## Chapter 7

### 2011 Pre-Conference Report and Abstracts of Papers

#### 0. Report on the pre-conference “Interdisciplinary perspective on the Global Financial Crisis” held at ACL on May 31, 2011

*Graça Silva, CG&G:*

The pre-conference focused on the “together alone” paradox revealed by the global crisis: the interaction between globalization and governance is rooted in “group think “within and between countries. Thus several perspectives are needed to overcome the paradox while in the letters of the British Academy to Queen Elizabeth on the crisis, the perspective is solely Anglo-American and in addition neglects the contribution of natural sciences. The perspectives presented and discussed brought together panelists from CPLP and different knowledge areas. It started with a “Narrative of the crisis: from dollar to euro zone” presented by **João Sousa Andrade** [1], including examples of different types of crisis together with a perspective on the evolution of faith in market economies as generators of never-ending prosperity: the crash of Wall Street (1987), the failure of Saving and Loans Associations (1989-91), the Japanese crash of stocks and housing prices (1990), the European Monetary Crisis (1992-3); the Mexican debt crisis(1994-5), the Asian monetary crisis (1997-8), the Russian debt crisis and the insolvency of LTCM (1998), the dotcom crisis (2000-1) and the Argentina crisis (2001-2). The existence of a high level of systemic risk was recognized with the emergence of the 2007-8 financial crisis. Nevertheless during some months in Europe the concern with inflation was stronger than the recognition of a sovereign debt crisis in the EZ. It was not until late 2009 that the fear of Greece’s default arose.

After this perspective about beliefs in market economies **Renato G. Flôres** [2] talked about “Consequences of the crisis for emerging markets: a world redistribution of economic power?”. He addressed the question of economic power redistribution between emerging markets and the so called developed markets, as the financial crisis resulted in a shift in wealth from the developed to emerging markets. One question that he raised is whether this is a long-lasting effect or instead if it translates into a world redistribution of economic power to emerging markets. By adding that behind economic power lies power itself, for example as embodied in military and offensive capabilities, the author enlarged a strictly economic perspective combining it with basic geo-political considerations. His approach changes the

way we look at (and forecast) the consequences of the crisis. Emerging powers may profit from the crisis, by asserting their new realities and contributing to changes in the present global order. But for this mutual knowledge, as advocated by the 2006 Bissau declaration on Millennium Development Goals in CPLP, is essential. To be consistent he suggested CPLP is more a combination of ASEAN and BRICS than anything involving advanced integration experiences such as EU, Mercosul, ECOWAS or SADC.

**Rui Malhó** [3] presented a perspective about economic crisis that links biology concepts with economics. He thought of the economy as complex systems in the same way that we can think of cells, or of the nervous system. In living organisms, a signal may trigger responses whose intensity and dispersion depend on the initial stimulus and on the local environment where it is perceived. Similarly a regional conflict may or may not have influence on a global scale. He quoted references illustrating this view (e.g., *The Second World* by Parag Khanna). After this biological perspective, **Rui Vilela Mendes**[4] presented a perspective from mathematics of finance, pointing out that mathematical models were blamed for the subprime collapse and the subsequent global crisis. However he argued that the advance warnings had been there, but that nobody had paid attention. He justified this lack of attention with the over riding concern with short term profits and suggested guidelines for future behavior by both economists and mathematicians. For the former he advised that regulation should not only implement safety measures but also avoid conflicts of interest and procyclical effects and for the latter that economic mathematics went beyond stochastic analysis.

**José Luís Cardoso** [5] provided an historical perspective and illustrated with a few examples the significance of new subject-matters to understand the development of distinct ways of both economic inquiry and policy advice. The current global economic crisis reveals different strategies used by economists to adapt their vision and proposals on the functioning of economic life. Facing the current economic situation many economists are forced to admit that they were blind or wrong in their earlier diagnosis and predictions. They also make considerable efforts to keep their reputation intact by supporting arguments favorable to the flexible nature of economic ideas. Quoting Paul Krugman, John Maynard Keynes and Lionel Robbins, he described the return to Keynes heard in current debates about the changing nature of economics. He gave special attention to the varying discourses and practices of economists

and how they relate to changes associated to the occurrence of unexpected economic and financial events

After the discussion between panelist and with the students, the discussants presented some insights about the role of CPLP. **Francisco Mantero** (Director of CPLP's Business Council) started to discuss the importance of CPLP success to other countries. For example, this success can facilitate investments and promote joint ventures with financial institutions partners. He emphasizes the success of Guinea-Bissau in the HIPC initiative and in the execution of a structural economic program and referred to it as an example that Portugal should follow. The importance of increased trade between CPLP countries is also advocated, in addition to the emphasis on the MDGs. **Domingos Simões Pereira** (Executive Secretary of CPLP) pointed out the difficulty in addressing problems that are specific to each country. An important question still not answered is "What's a crisis in Africa?". In order to start answering this question he argues that we need to understand what are the strategic projects most appropriate for each country. Answering the question of How the sharing of knowledge is viewed by CPLP, he emphasized learning to use human resources rather than only think about exploring physical resources.

### **1. Narrative of the Crisis: From Dollar to Eurozone**

*João Sousa Andrade, ACL and Faculty of Economics, University of Coimbra:*

The great moderation, from mid eighties to the subprime crisis: chance or genius of economic policymakers. The elixir of economic expansion in the hands of Greenspan has created the expectation of a new era of prosperity. The irrational exuberance had important disruptive effects on financial markets. The crash of Wall Street (1987), the failure of Saving and Loans Associations (1989-91), the Japanese crash of stocks and housing prices (1990), the European Monetary Crisis (1992-3); the Mexican debt crisis(1994-5), the Asian monetary crisis (1997-8), the Russian debt crisis and the insolvency of LTCM (1998), the dotcom crisis (2000-1) and the Argentina crisis (2001-2) were all absorbed creating the sentiment that market economies' prosperity could last forever.

Financial innovation allowed a higher level of wealth in a context of absolute faith on market regulation and almost absence of monetary and financial supervision. The existence of a high level of systemic risk was only recognized with the emergence of the 2007-8

financial crisis. During some months the obsession of inflation in Europe was stronger than the recognition of a sovereign debt crisis in the EZ. Fears erupted in late 2009 that Greece might default; they have since spread to other peripheral countries and governance innovations are unfolding.

## **2. Consequences of the crisis for emerging markets: a world redistribution of economic power?**

*Renato G. Flôres Jr., Graduate School of Economics, Getulio Vargas Foundation (reproduced above as Chapter 2):*

The financial crisis has undoubtedly meant a shift in wealth from the developed western North to the East and the South. Is this a long-lasting effect? Moreover, even if the shift might have been substantial – a point to be proved -, does it translate into a world redistribution of economic power to those areas, notably to emerging markets? We try to elaborate on these questions, enlarging the strictly economic perspective. Trade and financial flows, ownership of and investment in the different strategic or leading economic sectors, and the associated required educational and innovation skills are movements that add serious constraints to broad statements on power shift. Besides, behind economic power lies power itself, as embodied in sheer military and offensive capabilities. Combining basic geo-political considerations with the economic facts may change the way to look at (and forecast) the consequences of the crisis. Not only as regards so-called emerging markets – until when will they continue “to emerge”? emerge towards what? are they a homogenous group? – but also several pieces of after-crisis rhetoric, as better and increased regulation of financial markets.

## **3. Oscillatory behavior in biology versus economics - relevant similarities?**

*Rui Malhó, ACL and Faculty of Science, University of Lisbon:*

Many mutually interacting components create a non-linear activity with emerging (self-organizing) properties which cannot be deduced from the properties of the individual components of a complex system. More complexity is usually associated to greater specialization of and cooperation among system components. Examples of complex systems which cut across knowledge boundaries are cells, pluricellular organisms, the nervous system, social interactions, communication infrastructures, the economy itself. Inherent to

any complex system is the coding and transmission of information. In living organisms (cells, tissues), a given signal may trigger responses whose intensity and dispersion depend, not only on the initial stimulus but also on the local environment where it is perceived. For example, an ionic oscillation may confine itself to a small cellular region or spread through vast tissue areas - in the same way that a regional conflict may or may not have influence on a global scale. The understanding of our molecular and cellular mechanisms does not derive necessarily from the identification of stochastic phenomena. Nevertheless, it can be a way to help launching new ideas and experiments that contribute to the development of better forecasting models.

#### **4. Mathematics and the sub prime crisis: lessons for the next stages**

*Rui Vilela Mendes, ACL and Center for Mathematics and Applications, University of Lisbon (reproduced above as Chapter 3):*

Excessive reliance on mathematical models was blamed as the cause for the subprime collapse and the subsequent global crisis. By analyzing a few cases, we show that the mathematics was there, but nobody was paying attention. Sometimes not paying attention is more profitable in the short term. As lessons for the future: For the economists: Regulation should not only implement safety measures but also avoid conflicts of interest and procyclical effects. For the mathematicians: Economic mathematics is not just stochastic analysis.

#### **5. Economics in an age of crisis: lessons from the past and present**

*José Luís Cardoso, ACL and Institute of Social Sciences, University of Lisbon:*

The current global economic crisis provides blatant evidence of different strategies used by economists to adapt their vision and proposals concerning the functioning of economic life. Many of those who play an important role as opinion makers, and / or as economic and financial advisors, are forced to admit that they were blind or wrong in their earlier diagnosis and predictions. They also make considerable efforts to keep their reputation intact by supporting arguments favorable to the flexible nature of economic ideas. The point is not only the conversion to credos that were previously conceived as a path to sin, but also the recognition that changing ideas are a natural consequence of a sudden modification of the current course of events. This issue is not exclusive of current debates among economists.

The history of economic thought offers many other examples of adjustments and adaptations arising from the need to explain phenomena that had not hitherto been considered as a relevant object of study. The paper illustrates with a few historical examples the significance of new subject-matters to understand the development of distinct ways of both economic inquiry and policy advice. Special attention will be given to the varying discourses and practices of economists through the discussion of how they relate to changes associated to the occurrence of unexpected economic and financial events.

**6. “Science and society, successes and failures of the couple, between prometheus and cassandra”**

*Presented on November 6, 2010 at ARB by Jean-Pierre Contzen:*

Providing a science that is as irreproachable as possible, transparent and honest; defining a new governance of science; resolving conflicts internally; establishing a new pact with the other stakeholders of our Society, politicians and general public; clarifying the relationship between science and money; resetting the relationship with the media.

Academies of Science can play a role through due diligence, advice and enlightenment. Is there a middle road to shorten the scientific divide? This question deserves reflection and debate in a broader context, ranging from education to innovation. Some ideas: considering, when assisting countries, a finer distinction in their scientific capacities (emerging countries, rich countries without Science & Technology, poor countries with a legacy in S & T, the most backward countries); promoting cooperation at regional level but also between countries linked by special affinities; playing fully the card of North-South-South cooperation; supporting the efforts of international centers such as the International Center for Theoretical Physics in Trieste; examining the role of public /private partnerships in the scientific evolution of developing countries; assisting the Third World Academy of Science, which is the best forum for discussing the problem and for learning key stakeholders' points of view. Our Academies would do well to follow the work of this sister organization in this regard. Three questions that underpin the future of the relationship between Science and Society: How to avoid the perception that there is a limit to the progress of science? How to improve the governance of science while reconciling it with Society? What to do with the half of the world that currently lacks scientific progress?

## **7. The arb report on *the deindustrialization of europe***

***September 2010 presented on 17 February, 2011 at ACL by Jean-Pierre Contzen:***

The approaches to de-industrialization are divergent and the databases are not always coherent. Does “industry” mean only the manufacturing sector? Where is the boundary between services and industry? Does de-industrialization mean an absolute or a relative loss of industrial activity? What to do? Two options: Fatalism claims that de industrialization is inevitable since globalization and technical progress cannot be avoided. Robert Reich believes the challenge lies in improving the revenues of the badly paid workers. Jagdish Bhagwati advocates the abandonment of «factory fetishism» and the advent of the economy of knowledge and services (Larry Summers). To maintain the welfare of industrialized societies, it is enough to hold the control of capital, R&D and marketing. Hope maintains within developed economies a manufacturing industry, characterized by capital intensive products with high added value that use a work force highly qualified in complex domains. The proximity of clients in the product development process and the existence of a known brand are also important. The keys of hope: organization of the global monetary system; equal opportunities for firms; resistance to protectionism; promotion of a good governance are among the factors requiring a global treatment (WTO, IMF, G20). Other factors require an examination at a regional or national level: strengthening education efforts improve manufacturer workforce qualification, thus strengthening innovation; creating a fiscal and regulatory environment favorable to industry and innovation within it; ensuring the access to financial resources; reconsidering the role of technology clusters in the survival of industry. Conclusions: Topics for future action are development of coherent databases, analysis of 2008 crisis on the de-industrialization; influence of postmodernism in industrial policies; the future of developing countries in the different scenarios predicted for industrialized countries: will they be the second wave of emerging countries? Is there a role for Academies in the discussion of the impact of a sustainable development policy in industrial renovation? Yes because academies present a pluri-disciplinary character putting together economics, social sciences and technologies. They can provide neutral fora for stimulating discussion and promoting further studies on the subject. Afterwards, a dialogue with social, economic, and political decision makers can provide a rational basis for the decision makers’ future choices.





## Chapter 8

### Jacinto Nunes: a visionary of the fiscal problem

*António S. Pinto Barbosa*

Perhaps the most defining moment in an academic career is the completion of the doctoral dissertation. It would thus seem only natural to honor Jacinto Nunes — with whom I nurtured ties of admiration, gratitude and friendship — by revisiting, in a necessarily brief way, this crucial moment of his career through today's lens.

The dissertation Jacinto Nunes defended at the ISCEF in 1956 centered on the relationship between budget balance and national income. In his analysis this relationship is summarized in a multiplier and, to that extent, it focuses on a parameter which in a sense symbolizes, even today, the bumpy interaction between economic reality and macroeconomic stabilization policy.

Seen with the lens of today the analytical endeavor of Jacinto Nunes represents in my view a lucid anticipation of the importance of taking simultaneous account of two factors in evaluating the merits of stabilization policy. First, as accurate an assessment as possible of the quantitative relationship between a budget impulse and its final impact on output, that is, what is commonly termed the value of the multiplier. This represents the *Keynesian* side of a binomial. However, even if one is willing to assume the correct algebraic sign for this multiplier and also its quantitative significance, it is important to additionally be sure that its subsequent practical use is conducted in a benevolent way. In other words, to guarantee that the agents who effectively control the use of this instrument — typically located in the political sphere — make an appropriate use of it, that is, in compliance with theory recommendations. As we all know, a good instrument that falls in bad hands will most likely originate perverse results. This is the *public choice* side of the binomial.

Many contributions to these topics have been advanced since Jacinto Nunes wrote his thesis. As happened with respect to the value of the multiplier, significant developments occurred both in theory and in empirical studies. At the theoretical level, for instance, the challenge to the values of the multiplier raised by the *Ricardian Equivalence* is noteworthy. If rational and forward-looking economic agents are smart enough to anticipate the future

impact of present budget decisions, what consequences follow to multiplier values from such assumption?

There is, in addition, a subtly distinct point which more appropriately relates to the permanent income hypothesis: if consumers/taxpayers smooth out over time the impact of Ricardian anticipations (smoothing mechanism) what are, once again, the consequences to multiplier magnitudes?

On the other hand, at the empirical level, several studies have attempted to estimate numerical values for the multipliers, many of them stimulated by the occurrence of the Great Recession in 2008. The wide variety of numerical estimates obtained, and the fierce criticism of methodological errors to which some of them were subjected, indicate how controversial this area of research still remains.

Two prominent illustrations in this context are the empirical refutation of the negative multipliers associated with the concept of expansionary consolidation as advanced by Alesina and Ardegnà (2012), together with the refutation of the insignificant multiplier values found by Barro and Redlick (2009) while using data most likely contaminated by the impact of II World War rationing on consumption. The IMF (2012) itself acknowledged *mea culpa* in its publicized intention to revise the multipliers used in its own models of intervention.

If any conclusion may be tentatively drawn from this recent empirical research, it seems to point to numerical estimates of the multiplier that were larger than anticipated by some theoretical models, though more modern and sophisticated, of post-keynesian or dynamic general equilibrium flavor.

In other words, the simpler Keynesian formulation discussed by Jacinto Nunes in his dissertation which implicitly admitted significant multiplier effects on the economy offered, due admittedly to the concomitant relevance of zero lower bound on interest rates and liquidity constraints on consumers/taxpayers behavior, a more illuminating interpretation of recent economic reality.

Moving to the second factor, it may be noted that the implicit relevance of multiplier effects in Jacinto Nunes dissertation is accompanied by the central preoccupation with balanced fiscal accounts. Such preoccupation was, to be sure, in line with the country's zeitgeist but the author's choice of the dissertation title – National Income and Budget Balance - gave it maximum visibility.

In a sense it seemed as if Jacinto Nunes feared that the magnitude of the multiplier impact derived in his analysis might, by the same token, liberate the willingness of some evil genius to use it without adequate restraint. It is in this context that, after discussing several alternative ways of intervention, he concentrates on the case which he claims to be of the utmost interest: the analysis of the balanced-budget multiplier, the one that does not concomitantly aggravate the deficit. Jacinto Nunes explicitly singles out this case as the only one which, to use his own words, corresponds to “good administrative ethics” (p. 37).

Since the 1950's, when the dissertation was written, a lot of attention has been paid to budget deficits as a reflection of possible inappropriate spending and/or taxing. In fact, this preoccupation has become a central research topic of the Public Choice and Political Economy agendas. Specifically, the recognition and identification of a pervasive deficit bias in the conduct of fiscal policy has widely been considered a significant step forward in the interpretation and evaluation of stabilization policy in practice.

Acknowledgment of this risk of manipulation of fiscal instruments by political agendas (Barbosa, 2008) highlighted, at the same time, the potential interest in devising corrective mechanisms to that bias through the creation of appropriate rules and procedures. Thus, this factor, rather than implying a refutation of the benefits accruing from the operation of potent fiscal multipliers, represents a complementary consideration which, if taken simultaneously into account, provides a more thorough perspective of the quality of fiscal policy. Jacinto Nunes cannot therefore be blamed for omitting this factor in his analysis.

In sum and to conclude, I am pleased to identify in Jacinto Nunes dissertation the lucid, rigorous and wise way in which he was able to anticipate in 1956 the importance of two of the most relevant factors in evaluating today's fiscal policy namely in its struggle with the recent crisis: the importance of the value of fiscal multipliers, on one hand; the preoccupation with the potential abuse in its use, on the other. He was indeed a visionary of the fiscal problem.

## **References**

Alesina, Alberto and Silvia Ardegnà (2012), *The Design of Fiscal Adjustments*, *NEBR Working Paper* n° 18423, September

Barbosa, António (2008) Keynesianismo na prática, *Memórias da Academia das Ciências Classe de Letras tomo XXXIX*, forthcoming

Barro, Robert and Charles Redlick (2009) Macroeconomic Effects From Government Purchases and Taxes, *NBER Working Paper* n° 15369, september

IMF (2012), *World Economic Outlook*, Chap. 1, October.

Jacinto Nunes, Manuel (1956), *Rendimento Nacional e Equilíbrio Orçamental*, Lisboa: ISCEF.

## Chapter 9

### Fossil Fuels in CPLP: Which Future?

*Jean-Pierre Contzen*

The reserves of fossil fuels (oil & gas, coal) are important in five CPLP countries (Angola, Brazil, Guinea Bissau, Mozambique and East Timor). Will these countries continue benefiting from their resources for decades? Is the motto “Fossil fuels forever” applicable? Or is James Canton, the President of the Institute for Global Futures, right when he states that “*The Stone Age did not end for lack of stone. And the Oil Age will end before the world runs out of oil*”?

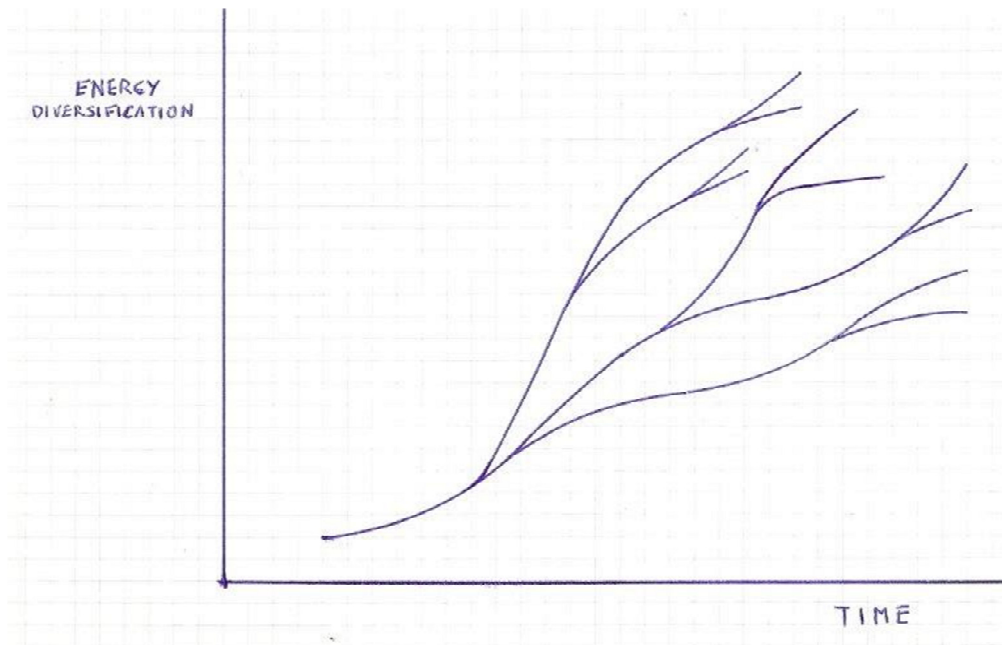
#### 1. Forecasting Energy Future: a Difficult Job

If and when it will end, one may wonder why? Where stands the competition for replacing fossil fuels? Some analysis is possible but one should not forget that the evolution of the global energy system is essentially chaotic in the sense of Ilya Prigogine. When describing the future of the system, one relies on segments of deterministic progression (dictated by technological advancement, industrial and regulatory time lags, availability of financial resources, etc.) punctuated by points of bifurcation. As Ilya Prigogine and Isabel Stengers wrote in “*Entre le Temps et l’Eternité*” :

En ces points {de bifurcation}, le comportement du système devient instable et peut évoluer vers plusieurs régimes de fonctionnement stables. En de tels points, une “meilleure connaissance” ne nous permettrait pas de déduire ce qui arrivera, de substituer la certitude aux probabilités.

When bifurcations occur, governments and civil society in different countries react in different ways; the stakeholders act according to their emotions, their social and political environments and traditions.

This leads to increasingly fragmented systems, to further chaos rather than to a stabilized new system, as represented in the next graph describing the different energy system evolutions (characterized by energy diversification) with time.



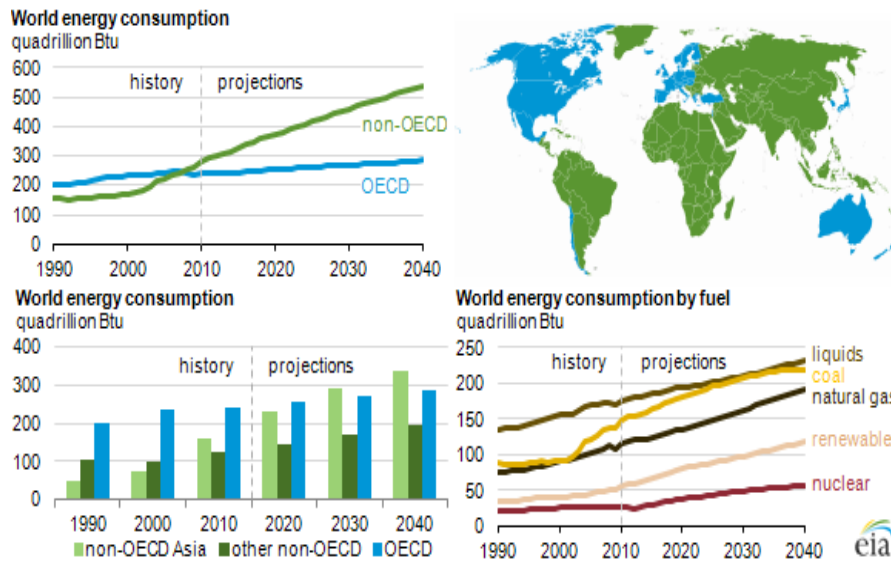
In the energy field, significant bifurcation points have been experienced so far:

- The exploitation of oil (1863)
- The peaceful use of nuclear energy (1950)
- The use of natural gas for energy purposes (1960)
- The oil crisis (1973)
- The large scale use of renewables and of cogeneration (1990s)
- Chernobyl (1986) and Fukushima (2011)
- The reduction of subsidies to renewables following the financial crisis (2009)
- The exploitation of tight and shale gas (2010)

Will the exploitation of clathrates which started in 2012 be the next point?

## 2. Future of Fossil Fuels

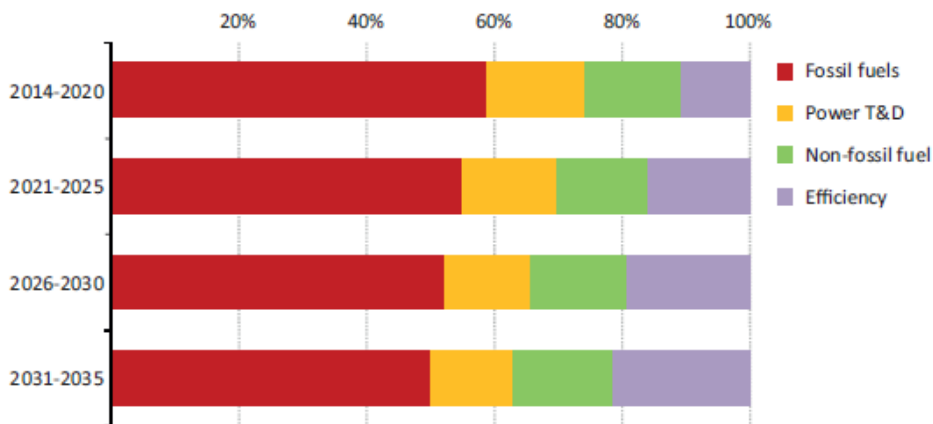
Until now, points of bifurcation have been in favor of fossil fuels and in the current overall deterministic context, their future looks bright; they should remain the major source of energy for decades to come as shown on the following graph prepared by the U.S. Energy Information Agency which projects that the world energy consumption will increase 56% by 2040 and gives a forecast of such consumption by type of fuel.



The IEA World Energy Outlook 2014 goes in the same sense, underlining still substantial investments in fossil fuel systems within its “New Policies Scenario”. As investments constitute a key factor for forecasting further growth (no money, no new infrastructure), the next graph displays important information.

Hence, where are the factors which might hinder this bright perspective? Energy sources are chosen according to several criteria which don’t have the same weight for all countries, for all enterprises. This explains the existence of a large diversity of energy systems which should be respected. “One size fits all” is not the solution to the world energy problem

**Figure 1.6** ▶ Shares of total global average annual investment in the New Policies Scenario



Notes: Non-fossil fuel includes all renewable technologies, nuclear and biofuels. Power T&D is transmission and distribution for the power sector: this cannot be assigned to either fossil-fuel or non-fossil fuel use.

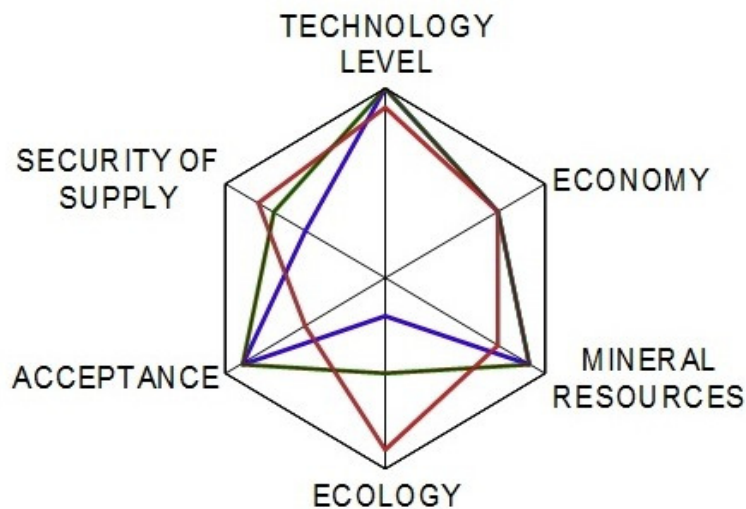


### 3. Selection Criteria

So far, countries and enterprises have reacted to several challenges when selecting their energy sources:

- Energy security, guaranteeing availability
- Maturity of technology for production and utilization
- Economic performance, a question of cost
- Ecology i.e. environmental friendliness: climate change but also local pollution
- Acceptance, safety as determined by experts being overshadowed by its perception by Society-at-large
- Mineral Resources availability determining utilization of materials in energy systems

These criteria constitute the vertices of a hexagon. Each energy system fits within this hexagon creating different figures (represented in different colors in the following graph) according to the relative importance granted to each of the six criteria.

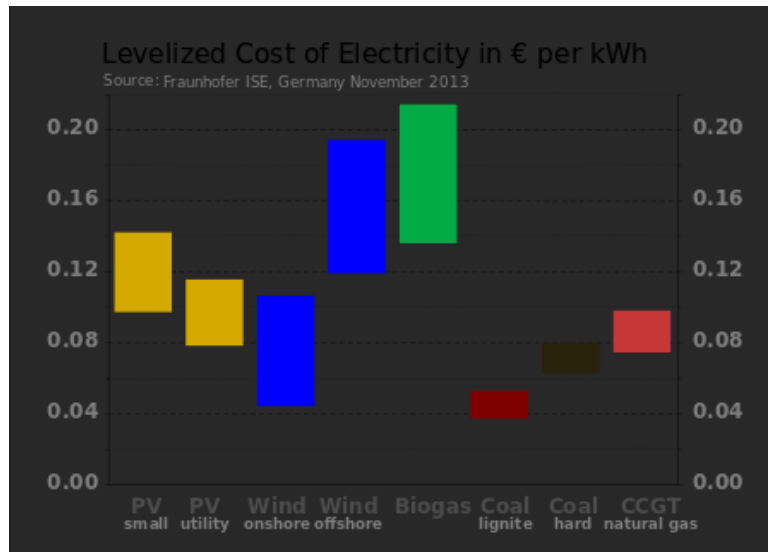


*Technological level* does not constitute a deciding factor as technological maturity is achieved for most energy systems. This does not mean that no new efforts are required from a technological point of view, notably in the field of energy storage (from Wh to GWh) and energy transport.

The same applies to *economy* with no large differences in cost for most systems, in spite of triumphal announcements by proponents of various energy systems. This is shown in the next graph and the following table which display examples of energy cost structures. Where hydropower and geothermal power are readily available (something which depends on geographical location) and accepted (by the local communities), they should be fully used as they are and will most probably remain the cheapest.

For *mineral resources*, the factor is not a leading one for the time being but it might be in a not too far future. Managing adequate mineral resources will become a new challenge for energy production. Secondary (recycled) rather than primary materials should be the choice for the future but it might take another 20 to 30 years before exploiting the right technologies for recycling. B. Goffé (U. Aix-Marseille) and O. Vidal (U. Joseph Fourier Grenoble) made an interesting study of the limitations for renewable energies development induced by the availability of earth mineral resources (Pour la Science, n°431, Sept. 2013). As an example, last generation wind generators consume per kWe produced, 20 to 40 times more steel and 6 to 15 times more concrete than a third generation nuclear reactor. The production of renewable energy systems require notably Fe, Cu, Al, concrete (cement, sand), glass (sand plus various minerals, with high purity for guaranteeing transparency), chemicals derived from hydrocarbons (resins, plastics), In (for PV panels), Nd and Dy for wind energy electric generators. Corresponding ores are getting lower in useful concentration due to exhaustion and they require increasing quantities of energy. In 2010, energy for extraction and processing represented 22% of the energy consumption of the world industry (US DoE).

Example of a *levelized cost of electricity* (LCOE) comparison for some newly built renewable and fossil-fuel based power stations in Germany, 2013



*Job creation* might become an additional factor if unemployment remains an acute problem in some parts of the world. In some European countries, employment created by a greater recourse to renewables is considered important. In Belgium, if the transition to an energy system based at 100% on renewables in 2050 would be made, the job creation would be between 21 000 and 65 000 full time equivalents before 2030, a non-negligible figure as the number of unemployed was 368 000 in 2012. BUT, even taking account technological progress, the cost of such a system would be 20% higher than a system still using fossil fuels. Where is the equilibrium point?

Cost Comparison of Energy Sources in the U.S. (from U.S. EIA April 2014)

Power Plant type	Cost in \$/kWh
Coal	0.10 – 0.14
Natural gas	0.07 – 0.13
Nuclear	0.10
Wind	0.08 – 0.20
Solar PV	0.13
Solar Thermal	0.24
Geothermal	0.05
Biomass	0.10
Hydro	0.08

Among the criteria, the differences come essentially from *security of supply*, *acceptance and ecology*: *Security of supply* is a question of geopolitics; it requires a constant dialogue between producers and consumers, hopefully not solely between the largest entities. *Acceptance* depends not so much from the objective risk but rather from its perception by the political decision makers and the general public.

*Ecology* is increasingly a significant factor with two leading aspects: local pollution and global climate change which do not go always in the same direction. Local pollution is the driving force in many countries (e.g. some reduction in the use of coal in China), climate change considerations might get more attention with the COP 21 next year in Paris approaching but are not currently at the forefront (e.g. Germany). The following table gives the overall emission levels of the different energy sources most used for electricity production, expressed in kg of CO<sub>2</sub> equivalent per MWh produced (The figures detail overall emission levels which include emissions arising from the realization of the necessary infrastructure). As it can be seen, the difference in emission levels is quite large.

#### 4. Position of Fossil Fuels

Most criteria are favorable to fossil fuels. For oil, in spite of the volatility of its selling price (which has little to do with its production cost), its attraction remains strong. Transport (air, rail, road and sea) constitutes still a captive market. Non-energy utilization of oil (and gas) as a chemical remains essential in spite of the increasing competition of bio-sources (revival of agriculture)

Emissions in kg CO<sub>2</sub>eq/MWh (UK source)

TYPE	EMISSION
Coal	870
Oil	650
Gas	487
Geothermal high enthalpy	100
Solar	72
Hydropower	10-30
Wave	18
Nuclear	16
Wind	11
Geothermal low enthalpy	10

Coal constitutes an indigenous asset for many countries and its importance persists, in spite of its poor environmental record: it will rejoin oil as top energy source in 2030. Use of coal has skyrocketed in emerging economies in the past 50 years: Brazil 7 times, Turkey 8 times, Taiwan and Mexico 13 times, S. Korea 15 times, China & Hong Kong nearly 16 times, Indonesia 34 times! “Scrubbing” technology which removes sulfur while burning high-sulfur coal is helping in this respect

Gas is the ascending energy source: it is much cleaner than coal and oil in terms of Green House Gases emissions and could be used, with new technologies, in sea and rail transport. Some countries joined recently the club of conventional gas producers, e.g. Israel and transport of LNG attracts again the attention as long range gas lines remain an issue from geographical and political points of view

The real revolution comes from unconventional gas, fracking gas (followed maybe by methane hydrates). The production of fracking gas in the US has changed not only energy fluxes but also geopolitics

One word of caution should be voiced about the benefits induced by the availability of oil & gas: countries with abundant resources should not suffer from the so-called “Dutch Disease”, a term coined by “The Economist” in 1977. After the discovery of large quantities of natural gas in the North of the Netherlands in 1959, it was expected that the country would be economically buoyant but the boom due to this natural resource led to a decrease in manufacturing and agricultural outputs with negative effects for the country. Emerging and developing countries should keep in mind this experience.

An evolution of utilization technologies which could displace some applications towards other sources, renewables notably, is on its way but slow and facing several hurdles. Electric cars, smarter energy systems, large scale temporary storage of energy from renewables, constitute the areas where technological progress might have the most significant impact.

Energy savings which constitute the most promising alternative for the future could only dampen in the decades to come the further growth of fossil fuels but not replace them

One way to reinforce the chances for the further utilization of fossil fuels is using the trump card of Carbon Capture and Storage (CCS). The development of this particular technology requires good knowledge in chemistry and in geology

Beyond its physical storage, direct utilization of CO<sub>2</sub> in the chemical/ food industry as well as chemical and bio transformations of CO<sub>2</sub>, e.g. using algae, can be considered.

In October 2013, Shell's CEO Peter Voser mentioned that CCS, along with biofuels and natural gas for transportation, "could be the bedrock of our future competitiveness". Again in October 2013, Dirk Smit, a Vice-President of Royal Dutch Shell, emphasized the expertise of oil companies in geophysics which could be the key to developing CCS. "For pumping CO<sub>2</sub> underground, no one has a better head start on knowing how to do it than oil companies. One unresolved issue relates to how long the CO<sub>2</sub> can be stored. The experience of oil companies in characterizing reservoirs could help answer the question".

In terms of technological development which could favor the further recourse to fossil fuels, one should note possible synergies with quite different fields of application, i.e. those linked with space exploration and exploitation. Offshore oil & gas exploration and exploitation are driven towards a presence at greater depths, implying the use of new technologies capable of facing a hostile environment and mastering remote operation in such an environment. There is an analogy of requirements for the exploration of outer space; hence, there should be an advantage in creating synergies between the two types of technological development, one for deep sea and the other for outer space. Countries of the CPLP should keep this opportunity in mind

What remains then for darkening possibly the future of fossil fuels? The answer lies in the environmental field. Climate change considerations could be the key obstacle to the further development of fossil fuels, if the target of at least 50% chance of keeping warming below 2°C throughout the twenty-first century would be effectively aimed at.

If the world were deciding the effective implementation of strong limitations in Greenhouse Gases (GHGs) emissions, it could limit the exploitation of most of the known reserves in fossil fuels would not be exploited, creating a real limitation in the future availability of these fuels and affecting the countries and companies future balance sheets (see Nature **517**, 187-190, 08 Jan. 2015). When looking at the regional distribution of resources unburnable before 2050 under the 2°C scenario including CCS, one notes that all regions of the world producing fossil fuels would be hit.

Another threat relevant to the same environmental issue could come from militant environmentally-driven investment funds which could divest massively from companies

involved in the production of fossil fuels. As an example, the Stanford University endowment fund has been one of the first funds divesting from coal mines but the movement is still limited.

## **5. Conclusion**

Nobody can make hard predictions for the development of the global energy system in the decades to come but most indicators are favoring the continuation of a bright future for fossil fuels at world level. If they are wise enough to avoid the “Dutch Disease”, CPLP could benefit from this favorable trend. Environmental considerations could be the main obstacle on their path but, so far, the preoccupations of nations in this particular field have been overshadowed by several other considerations, essentially political and economic. Will this trend last? Giving a definite answer is difficult. CPLP should monitor closely the evolution of the position of fossil fuels in world energy scenarios.

## Chapter 10

### **Energy@CPLP drives Portugal's strategy for open economy**

*Jorge Braga de Macedo*

The cover of *Monocle* #57 reads: “Generation Lusophonia: why Portuguese is the new language of power and trade”, Bloomfield (2012) states in the lead article, titled “something in common”: “there is a huge potential to unleash if powers can be combined. Could now be the time?” and the conclusion asserts that “the rest of the world would benefit from a bit of Lusophilia”. At the same time, the existence of the Portuguese-speaking market asserted by Araujo and Figueiredo (2014) was being researched at Harvard Business School allowing me to suggest that “globalization liberates lusophonia” in the book launch and in a meeting of the European Business Council for Africa and the Mediterranean in Cascais (Macedo 2014a and b respectively). It seems as if “global lusophonia” is accepted before the Letter to Queen Lusophonia is actually written...

One reason for this greater notoriety, mentioned in Chapter 2, has to do with the BRICS: Brazil has been a driving force of CPLP whereas the US is indifferent to the Commonwealth of Nations. Second, CPLP grew to nine members in 2014: at the 10<sup>th</sup> summit in Dili, after being an observer since 2006, Equatorial Guinea became a member while Georgia, Japan Namibia and Turkey joined Senegal and Mauritius as observers. Third, this new conception of CPLP driven by business organizations and the large export firms associated to ELO, a business association for development and cooperation which is now chaired by CIP, the confederation of Portuguese enterprises, is helping to implement the government's strategy for open economy and competitiveness in the EZ. Fourth, insofar as other CPLP members are open to their neighboring integration areas and to China, where the Macau Forum has become a relevant vehicle in trade and investment promotion with CPLP members, their economic potential and cultural legacy will become complementary. Fifth, according to ELO, CPLP can drive Portugal's strategy for open economy in energy and natural resources; communications and public works; financial services; maritime business; agriculture; tourism, education, health, etc.



Here the focus is on energy and science, who turn out to be strongly related.

### 1. Nye's dominance matrix

First, consider the world system in which *Monocle's* "new language of power and trade" is spoken. It was described by Nye (2002) as a three dimensional chessboard where US dominance on security was accompanied by decline on the other two levels: diplomacy (intergovernmental cooperation) and civil society (transnational relations among private actors). Macedo (2011, p.21), notes that the first and even the second waves of globalization (15th century and 19th centuries) did not involve as many players as the current one.

In Table 1, the resulting positive or negative G&G interactions are illustrated by means of a "dominance matrix" where the four rows of the dominance matrix add "land", i.e. endowments both for agricultural and raw materials to the three levels mentioned, relabeled as defense, finance and trade whereas the four columns represent North America (US, Canada, Mexico), the EU (specifically EZ), East Asia (ASEAN plus China, Korea and Japan) and ROW.

Table 1 Dominance matrix

	NA	EU	EA	ROW
Defense	<b>YES</b>	NO	NO	NO
Finance	<b>YES</b>	YES	NO	NO
Trade	NO	YES	<b>YES</b>	NO
Land	NO	NO	NO	<b>YES</b>

Before the global crisis, each one of the regions (NA, EU, EA, ROW) represented roughly a quarter of world GDP in 1990 international dollars. The US dimension was key in the first two (the creation of the euro notwithstanding) but EA dominated EU in trade, whereas ROW is the most endowed in people (one half), land and raw materials. ROW is of course the most heterogeneous group of countries: it includes significant national actors, such as Brazil, Russia, India (the BRI in BRIC) and salient regions largely ignored in the plot, such as the Middle East and Africa (South Africa being the S in BRICS).

The four rows (defense, finance, trade and land, i.e. endowments both for agricultural and raw materials) illustrate NA, EU, EA, ROW dominance, assuming that institutions pertaining to each one function effectively. The US dominates the first two, even though in

finance the creation of the euro in 1999 may lead to a shared dominance with the dollar. The new development is that the members of the Chang Mai initiative trade more with each side of the Atlantic partners than NA and EU trade with the other. Nevertheless, the fourth quarter of world GDP remains the most endowed in people ( $\frac{1}{2}$  of world population), land and raw materials. The abundance of human and natural resources in ROW disguises the scarcity of capital, physical, human, social and political as well as financial. Put in another way, the institutional assumption is least plausible there. Acemoglu and Robinson (2012) illustrate the variety of institutional arrangements between countries that appear close to each other, let alone within them. Nevertheless, there is no doubt about their major conclusion, political and economic institutions interact in virtuous or vicious circles depending on whether institutions are extractive or inclusive<sup>1</sup>.

As quoted in the introductory chapter ESPAS (2015) identified three global revolutions which could threaten Europe in relation to the US and China in a world they characterized as being ruled by an informal G-3. The first revolution had to do with more fragile geopolitics, coming from East and South, the second with the frustrated social and democratic aspirations of European citizens and the third with economic and technological change though little is known about the impact of *secstag* in ROW.

## 2. ROW and energy

That ROW cannot be seen as a residual of East and South is evident when you look at fossil fuels. Alves da Rocha (2015) and Ferreira de Oliveira (2015) present reserves and production of oil, natural gas and coal for five CPLP members (highlights in Table 2). In Chapter 9, Contzen emphasizes that the evolution of the global energy system is essentially chaotic. Given current selection criteria for energy systems, “stronger environmental considerations could be the key obstacle to the future development of fossil fuels”. The same trade-off is mentioned by Wolf (2015) as relevant in the short-run.

Ferreira de Oliveira (2015) notes that the share of deep water oil and gas reserves have made up half of the total between 2006 and 2013 and Angola, Brazil and Mozambique account for on half of that. Chapter 9 derives the technology policy implications of this for

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<sup>1</sup> Though Acemoglu and Robinson (2012) do not acknowledge it, the “voracity effect” of Tornell and Lane (1999) is a specific consequence of extractive institutions. It has been applied to Portugal in Macedo (2003).

Portugal and emphasizes “an analogy of requirements for the exploration of outer space; hence, there should be an advantage in creating synergies between the two types of technological development. Portugal increased involvement in European Space Agency programs could be a driving force there.”

Table 2 Fossil fuels in CPLP

	OIL		NATURAL GAS	
	Reserves (bbarrels)	Production (bb/day)	Reserves (trcubft)	Production (bcubft/yr)
ANGOLA	9,1	1,9	9,71	26,6
BRAZIL	15,1	2,7	16,2	752,2
EQU GUINEA	1,1	0,3	1,3	243
MOZAMBIQUE	-	-	100	153,8

Source: Alves da Rocha (2015, p. 18; Timor and coal not included)

The complementarity between science, engineering and economics which becomes a key source of competitiveness was mentioned in the discussion, together with the role of policy in picking up the “right” path and on the combined role of scientists, engineers and economists. This is related to the fifth point of the letter to Queen Elizabeth, deconstructed Chapter 2: “politicians believed bankers were engineers”. In Chapter 4, the Byzantine Empire was brought to bear on the redistribution of economic power which took place in 1453. LQL also emphasized group think and incestuous amplification, familiar to neuroscientists.

### **3. Portugal’s strategy for open economy**

Upon being sworn in in mid 2011, Portugal’s Prime Minister appointed a Working Party on Internationalization and Development (PCM, 2011), which recommended the creation of a Strategic Council for Open Economy (CEIE) capable of debating measures for the economy’s openness to trade and investment flows. Formed in October 2011, it has been

chaired by the Prime Minister, and now includes the Vice Premier and the Ministers of Finance, Foreign Affairs, Economy, Energy and Agriculture, together with the Presidents of CIP and 5 other business organizations. CEIE has met eleven times to evaluate public policies and private initiatives, and their articulation aiming at opening the Portuguese economy, promoting and attracting foreign investment<sup>2</sup>. The Agency for Portuguese Foreign Trade and Investment (AICEP) serves as secretariat to CEIE, and the work is prepared and monitored by thirteen alternates – who have met 48 times.

CEIE approved 44 recommendations, available in the Government portal, on four areas how to improve financing of the economy, simplify administrative procedures, simplify tax administration and develop a coordinated and effective external economic policy. In 2014, CEIE and ELO have jointly been involved with a project on economic lusophonia, which looks not just at the member countries but at their regional integration platforms as well. These were listed in Chapter 2. Apart from EU/EZ, they include SADC for Angola and Mozambique, ECCAS for Equatorial Guinea and São Tomé e Príncipe, ECOWAS for Cape Verde and Guinea-Bissau, MERCOSUL for Brazil, ASEAN - which East Timor will join - and the Forum for Economic and Trade Cooperation between China and Portuguese Language Countries in Macau.

The “economic lusophonia” project contains a list of 45 proposals to facilitate trade and investment, international agreements, training and capacity building and the movement of persons, including schemes for implementation and monitoring. With its associated consultants PwC and KPMG, ELO has been investigating specific measures in energy and natural resources, communications and infrastructure as well as financial services. Additional working groups - on agriculture and sea and on tourism, services, health and education – are in preparation.

This strategy for open economy has a knowledge base. As mentioned in the introductory chapter, it can be traced to the eve of the Berlin conference of 1885, where Portugal – through IICT’s legacy institution - was keen to display its tropical knowledge but it can also be gathered from the 2006 CPLP declaration on the MDGs. The overarching role of the global partnership for development, the single MDG which includes both the private

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<sup>2</sup> CAP, CCP, CTP as the confederations for agriculture, commerce and tourism; AEP, AIP as the trade and industry associations of Poro and Lisbon respectively.

sector and scientific and cultural cooperation can be seen in the “Portuguese initiative” on the historical and scientific collections of IICT, approved at the CPLP meeting of the Ministers of Science and Technology in Rio de Janeiro in 2003, the Declaration of the MDGs adopted at the Bissau summit in 2006 and the ongoing work on the sustainability of the MDGs after 2015.

Cultural perceptions – sometimes called “tribal” to stress their anthropological roots - have implications for peer pressure, without which no multilateral surveillance will work. While voluntary, the African Peer Review Mechanism (APRM) has been more effective than the G-20 Mutual Assessment Process: as CPLP mixes OECD, MAP and APRM, its regional platforms can build on ELO’s economic lusophonia project, the MDG examples and the work of CEIE to show that very diverse countries can use mutual knowledge to achieve common objectives in business and science.

Geographical distance and economic diversity are the striking feature of CPLP. In terms of multilateral surveillance mechanisms, CPLP includes 1 medium-sized OECD country, 1 BRIC, 2 large SADC, 2 small ECOWAS, 2 small ECCAS, 1 small ASEAN observer plus 1 beach-head in another BRIC. This is why I claim that “globalization liberates lusophonia” (Macedo 2014a and b).

#### **4. Costa’s kite in the tropics**

Quoting from Costa (2014): “The geometric figure of a kite best represents today’s world geo-politics. Think of Washington, Moscow, Beijing and Berlin sitting at a kite’s four extremities, connected by sides and shaped by angles that vary according to economic and military strength. In the center, namely the intersection of the kite’s diagonals, I position non-state actors even more dangerous than totalitarian nations, evil powers that can destroy humanity” (p.305). Thus examining how the kite “changes when its corners are pulled by economic or military factors” is not enough because “obscure forces around the world are preparing to reshape the kite, turning it into a deadly trap” (p. 307). Aside from the three members of the UN Security Council mentioned above, two of which are BRICS, three other (Brazil, India and South Africa) are in ROW, representing states and regional blocs accounting for most of the world’s population and resources. These are also forces preparing to reshape Costa’s kite.

A paradoxical feature of the global crisis is that cooperation among nations becomes more difficult when it is most needed: fiction and reality can merge or crash! The implication is that negative G&G interactions come from both global shocks and uncoordinated national responses, even within Europe<sup>3</sup>. The global nature of the crisis is neglected: the only relevant state actors mentioned in the first Letter to Queen Elizabeth were the UK and the US (footnoting the contribution of China and India to the “global savings glut”). Costa (2014) includes non-English speaking actors but he neglects the South.

As implied above, the fifth point in the Letter, that “politicians believed bankers were engineers”, suggested that perceptions were key. Nevertheless, the British Academy did not bring insights from neuroscience to bear on these perceptions. On the contrary, neuropsychiatry and subliminal messages appear throughout Costa (2014). The only diagram in the book (p. 191) represents the chiasmus explained to the protagonist at a cocaine party in Berlin and it comes back in a conversation with his Polish chess master friend at a crucial moment in the plot: the protagonist describes the cyber attacks on a British and French official as they were playing chess on their computers and this startles his friend because his father had been involved in a similar project, “to cast immense holographs into clouds. The idea was to demoralize NATO soldiers and win battles without firing a shot” (p. 382). The protagonist’s tweet “nuke thy neighbor is inevitable” (p. 291) had elicited an immediate response from the ultimate victim of the game, who confesses that China is helping fund Ukraine! Another interesting example pertains to the protagonist’s vision of (SAFE.Cofi)’s blood everywhere, which reflected his anxiety about her death (p. 234)

As mentioned in Chapter 2, Krugman says the Queen asked the wrong question. In the spirit of Reinhart and Rogoff (2009, 2010), he stated that this time seems different, but it never is different<sup>4</sup>. It is therefore desirable to trigger public debate so as to transcend the silo curse “in a world that is both highly connected and tribal” (Tett, 2009). Chapter 4 drew attention to the fact that not only emerging powers but also other regions of the world may

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<sup>3</sup> The expression “together alone” is borrowed from the 1992 song of an Australian rock band, though Jorge de la Barre informed me that there is a 1932 song composed by Arthur Schwartz with lyrics by Howard Dietz which became a jazz standard. In any event, the “together alone paradox” in Macedo (2011) attempts to answer the Queen’s question: “why no one saw the credit crunch coming” (as mentioned in the introductory chapter).

<sup>4</sup> Reinhart and Rogoff (2010) claim that there is a relationship between debt and growth but - as Krugman has repeatedly pointed out - it does not follow from their (2009).

be offering different development models. Flores hoped these would become alternative, in some dimensions more positive, agents, in the conduct of the current wave of globalization.

The title of the late Angus Maddison's contribution to the 40th anniversary volume of the OECD Development Centre (Macedo et al 2002) was *The West and the Rest*. Following his "millennial perspective on the world economy", the divergence in per capita income levels between Western Europe and its offshoots on the one hand and ROW on the other started well before 1820 (Maddison, 2001): they are set to continue in the 21st century even as China's GDP approaches that of the US.

Introducing the dimension of international development modifies the sides and angles of the kite and this may stabilize or destabilize G&G interactions. In effect, current views (Currie-Adler et al 2014) emphasize more and more that development paths for individual nations are specific even if best practices can be used to improve institutions through peer pressure. The case studies presented in Currie-Adler (2014), including the one for Brazil by Flores, are consistent with the findings of Acemoglu and Robinson (2012) on virtuous and vicious circles across time and space.

## **5. Globalization and multilateral surveillance**

Early research showed how globalization improves governance (Macedo et al, 2001). OECD countries have managed interdependence within a security community for decades but this is not the case outside of it. Multilateral surveillance mechanisms help managing interdependence, as argued in Macedo (2011) and in Chapter 2 above. Yet, procedures among G20, such as the Mutual Assessment Process (MAP), are perfunctory - and nonexistent among BRICS. Results in Macedo et al. (2013b) suggest, globalization improves governance and interacts positively with democracy among converging countries. Empirical evidence on the complex interaction between globalization, democracy and development in about 100 countries over 40 years is too coarse to bear on the pendulum dynamics within Europe, let alone the chess games among global players.

Nevertheless, the positive interaction between globalization and freedom observed among OECD countries does not hold outside. In addition to this negative G&G interaction among many players, the effects of history on outcomes show that there is no effect of English or Spanish colonial heritage. As for geography, there is a negative G&G interaction

for Africa and South America. In sum, kites flying the northern hemisphere between US and three Eurasian state actors miss the action in ROW.

While the 2008 crisis was global its epicenter moved to the European periphery with the 2010 EZ crisis. Macroeconomic adjustment in the so called “cohesion countries” (Greece, Ireland, Portugal, Spain) was a concern at ECFIN in the run up to Maastricht and now it seems that the EZ cure was worse than the disease because the financial system was neglected before the crisis, in both its US and EU epicenters. The mix of sovereign and banking crisis hitting the EZ was unusual because of the absence of exchange rate risk, which made adjustment socially more difficult and aggravated the perception of creditors and international investors that it could not be carried through by democratically elected governments. Therefore, the presentation of macroeconomic indicators such as national income and debt is not sufficient to understand how risks differ across EZ countries, independently of whether they are under bailout or not, but also how they spread from and to the periphery.

Differentiated responses also reflect the mechanisms of multilateral surveillance available: those used by the IMF are very focused but not as constraining as those among EU member countries, like the Macroeconomic Imbalances Procedure (MIP) where deficits as well as surpluses are monitored, let alone EU countries sharing the same currency in the EZ. OCDE mechanisms are similar to those of EU but not legally binding. Indeed, except for the G-20 Mutual Assessment Process (MAP) and the APRM among most AU countries, such mechanisms are not used outside of the OECD.

Nevertheless, APRM has worked better than MAP, so that the BRIC (excluding South Africa, an AU member) and other large emerging markets are not subject to deep peer reviews. The basic reason is that, even among the other BRICS, they barely accept the pressure of the other members of the club. Like in the culture wars between economic tribes mentioned in Chapter 2, there are no “peers”. If cultural perceptions have such implications for peer pressure, they are unlikely to broaden the scope of economic interdependence beyond the North Atlantic security community that led to the creation of OECD.

On the contrary, there are pressing global problems like the current international debate on the sustainability of the MDGs after 2015, which is based on scaling up the global partnership for development, the only MDG stressing private initiative as well as scientific



and cultural cooperation. If pressure for collective action rises through international governance innovation, tribal rivalries and ideological disputes might abate.

Yet the implicit dilemma “feed or starve the beast” is common in references to the mounting public debt in the UK and the US as justifications to cut spending and taxes. It reinforces the relevance of the adverse effects of improved terms of trade when the tax base is appropriated by a small number of interest groups, the so-called voracity effect (Macedo, 2003). This G&G interaction, present in the global redistribution of wealth from the North to the South and the West to the East (OECD, 2010), begins with Marx’s fear that in future capitalist China and India would exert pressure on socialist Britain. Such redistribution, effected through imbalances in external payments, may reflect a “game for global supremacy” being played in central Europe but the EZ game often neglects the ROW.

In fact intra-EZ payments imbalances are seen as being of lesser import than the need for industrial democracies to manage the deficit bias of budgetary institutions as a way of holding on to their credit ratings. Moreover, the “beast” need not be identified with the taxing power of the state because the balance of payments constraint applies to private as much as to public borrowing. It is in this regard that the traditional divide between the West and the rest morphs into a rift between the saving East and the consuming beast.

The world re-distribution of wealth could revive long forgotten philosophical traditions as we move from the ideal of equality to that of wisdom, according to Delsol (2011). As she says in the introduction to her *Age du Renoncement*, when we are between paradigms we believe the old one will be replaced by chaos. If the uncertainty surrounding a transition brought about by massive wealth transfers exacerbates concerns over the deteriorating quality of economic growth brought about by the spread of western patterns of mass consumption to masses in the South and the East, it may well accelerate a new paradigm of renunciation. Cohen (2012) has a convincing perspective on happiness, stemming from his earlier demonstration that rather than too much globalization, there is not enough of it. This is both cause and effect of lack of trust within and between nations.

As mentioned in Macedo (2012), bringing economic and financial differentiation into the picture entails the broader geographical domain of CPLP and Portuguese speaking migrant communities scattered across the globe. National differentiation which cuts across history and geography can be grounded on culture-based multilateralism, like the Bissau

declaration on MDGs in CPLP. This declaration explicitly mentions “mutual knowledge” as a lever, alongside political will and financial clout, for the management of culture-based multilateralism, attempting “silo busting” (Tett, 2009, 2012) within organizations and nations is only the beginning<sup>5</sup>.

It is worth mentioning that the evolution of cooperation between Portugal and its former African colonies, helped by their recognition in 1992 as a region for the purposes of European development cooperation, began in the first two areas of the dominance matrix, defense and finance, well before the formal establishment of CPLP. Yet Brazil joined little by little while East Timor and Equatorial Guinea joined immediately the annual meetings convened by Banco de Portugal since 1990 and the military exchanges, On the contrary progress on trade has been very slow, in part because trade between CPLP members and their neighbors is very constrained, with the exception of Portugal. The reality of culture-based multilateralism within CPLP is therefore less salient in the usual areas of language and trade than it is in the other in defense, finance and perhaps energy. This need not be reflected in the existence of regular Ministerial Meetings since those on Culture or Science and Technology started well before those on the Economy or Energy, the latter being set to be inaugurated in May, 2015.

Maddison’s expression is used in the subtitle to Ferguson (2011) to motivate the same questions (phrased as: How did the West overtake its Eastern rivals? And has the zenith of Western power now passed?) and offering the same answer: “beginning in the fifteenth century, the West developed six powerful new concepts that the Rest lacked: competition, science, the rule of law, modern medicine, consumerism, and the work ethic. These were the ‘killer applications’ that allowed the West to leap ahead of the Rest; opening global trade routes, exploiting new scientific knowledge, evolving representative government, more than doubling life expectancy, unleashing the industrial revolution, and hugely increasing human productivity”. Differently from Maddison, Ferguson argues that the days of Western predominance are numbered because the Rest have finally downloaded the six killer apps the West once monopolized – while the West has literally lost faith in itself.

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<sup>5</sup> Challenging the neglect of culture in multilateral affairs and engaging the economics of happiness helps implement the MDGs and reinforces the global common good (Macedo and Macedo, 2011).

The projections contained in Maddison (2007), his macroeconomic history of the world, were updated by Mold (2010) to take into account the upsurge in economic growth in much of the developing world up to the crisis: in 2030 the “Rest” accounts for nearly 70% of the global economy, compared to just 45% in the base year of 1990.

## **6. The need for international governance innovation**

To conclude, I offer some reflections on fiction as a political tool and come back to the need for international governance innovation mentioned in the previous section. It is worth remembering that, at the turn of the century, the BRICS acronym presented the view that the emergence of a global middle class would deepen and widen the appetite for western mass consumption patterns, from food to cars. The resulting pressure on non-renewable resources suggests that the “game for global supremacy” has a bearing on the together alone paradox. The change in perception brought about by the crisis has also generated calls for a new social contract, which were conspicuously absent during the Great Moderation. The “neither austerity nor growth” rallying cry echoes the cold war dictum “ni rouges ni morts”, around which nouveau philosophe André Glucksman built his 1983 *La Force du Vertige*.

Yet the pendulum protagonist would nod in approval at James Galbraith, the veteran of “economic culture wars” of the mid-1990s quoted in Chapter 2 when he wrote in *Le Monde*: “In truth the protestors of Greece and Spain and Italy, the voters of France and the Occupy Movement in America, who oppose austerity, do not clamor for growth. They do not care about profits or even all that much about wages. What they want, mainly, is to protect the institutions that make their lives tolerable, safe and attractive. These are health care, education, local public services, culture, the environment and the right to retire in modest comfort at a reasonable age. These citizens know where their interests lie. In modern life schools, universities, clinics, hospitals, clean and safe streets and secure future are not expendable. They have become the central features of life, the sum-and-substance of desire and happiness. Cars, computers, booze, and tobacco, these are the extras now. The companies who make them seek profits, and therefore growth. But the people would take solidarity instead, if they could.”

For him, in the US solidarity and social progress rose from slavery, and the great struggle over the limits of solidarity has always been racial, while in Europe it arose from

war. He acknowledges that “the idea that solidarity must extend across nations has not yet taken hold. Germans never promised to pay Spanish pensions; they took it as a European principle that they would never have to. But today Spain is in debt trouble, and the practical issue is whether Spaniards – or the Portuguese, or the Greeks – can have any social protections at all, if they stay in Europe”. Galbraith (2012) points out that those who argue that the austerity moment is passing add that fashionable opinion offers the growth alternative and adds: “growth is only a goal. It is not a policy. And every lobbyist, political hack and ten-cent crank has a strategy to make growth happen. The details consist of whatever it was they most wanted beforehand”. He goes on to say that this “is nonsense and most people see that clearly. If austerity was a deceit, growth is a chimera”.

Roberto Unger (2009), the “Minister of the Future” in the Lula administration in Brazil, provides a Southern echo when he announces that “The world is bent under the yoke of a dictatorship of no alternatives” and therefore that “The task of the imagination is to do the work of crisis without crisis. Imagination, imagination, imagination to the rescue”. We are far from the apparent chaos in Delsol (2011)!

After 2008, governance responses to globalization were largely uncoordinated, and negative G&G interactions were the norm. In other words, the “together alone” paradox is a feature of the dominance matrix in Table 1 above not just between North America, Europe and East Asia, but within each of these groupings and ROW. Differences to be invented connote international governance innovation and will be part of positive G&G interactions to the extent that they are supported by multilateral surveillance frameworks such as those found within the OECD, the EU or even in the APRM, but sadly not among the G-20 or even the BRICS.

While there are no *Letters to Queens* in Costa (2014) and the novel neglects the South altogether, providing a global plot with central Europe at the center helps both showing how fiction can be a political tool and the need for governance innovations capable of bringing about peer pressure between the middle income countries. Sequels will no doubt globalize the plot beyond the non-state actors that shape the US-Germany-Russia-China kite allowing for lusophilia and several of the acronyms used above.

## References

- Acemoglu, Daron and James Robinson (2012), *Why Nations Fail The origins of power prosperity and poverty*, Princeton University Press
- Alves da Rocha, José (2015), Combustíveis Fósseis na CPLP, draft, ACL, February
- Araújo, João and Tenório de Figueiredo, José (2014), *Strategy for Portuguese-speaking market one vision one strategy one execution*, Lisboa: Universidade Católica Editora.
- Bloomfield, Steve (2012), Something in common, Lusophilia, *Monocle* #57, October.
- Bonaglia, Federico Jorge Braga de Macedo and Maurizio Bussolo (2001), How globalisation improves governance, *CEPR Discussion Paper* n° 2992, October, reprinted in Linda Yueh (editor), *The Law and Economics of Globalisation*, Edward Elgar, 2009
- Cohen, Daniel (2012), *L'homo oeconomicus, prophète égaré des temps nouveaux*, Paris: Albin Michel
- Costa, Antonio Maria (2014), *The Checkmate Pendulum from fiction to reality*, AEF Moringa
- Currie-Adler, Bruce, Ravi Kanbur, David Malone & Rohinton Medhora, editors (2014), *International Development Ideas, Experience and Prospects*, Oxford University Press.
- Delsol, Chantal (2011), *L'age du renoncement*, Paris: les editions du cerf
- Ferreira de Oliveira, Manuel (2015), A energia: presente e futuro numa perspectiva sobre a CPLP, draft, ACL, February
- Ferguson, Niall (2011), *Civilization: The West and the Rest*, London: Penguin
- Galbraith, James K. (2012), Ni austérité ni croissance : l'Europe n'a d'autre espoir que la solidarité *Le Monde* | 14.06 (English translation Neither Austerity nor Growth; Solidarity is Europe's Only Hope provided by author)
- Kahneman, Daniel (2011), *Thinking, fast and slow*, London:Penguin.
- Krugman, Paul (2013), Economics in crisis, Macedo (2013b), p. 11-17

Macedo, Jorge Braga de (2003), Europa seguro contra a voracidade, in *Portugal e a Construção Europeia*, edited by Maria Manuela Tavares Ribeiro, Barbosa de Melo e Manuel Porto, Coimbra: Livraria Almedina, pp. 217-234.

Macedo, Jorge Braga de (2011), Global crisis and national policy responses: together alone? Reprint from *Ética, Crise e Sociedade* edited by Michel Renaud and Gonçalo Marcelo, V.N. Famalicão, Húmus, pp.91-159

Macedo, Jorge Braga de (2012), From the West and the Rest to the East and the Beast?, presentation at Institut Franco-Portugais, Lisbon posted at [www.jbmacedo.com/IFP.pdf](http://www.jbmacedo.com/IFP.pdf)

Macedo, Jorge Braga de, Colm Foy and Charles P. Oman, editors (2002), *Development is Back*, Paris: OECD Development Centre

Macedo, Jorge Braga de and Ana de Macedo (2011), Use (less) value and MDGs, *Useless*, Lisboa: Babel, pp. 191-210

Macedo, Jorge Braga de, José F. P. Santos and Rui Malhó (2013a), Writing to Queens while Crises Proceed, *Science in the Tropics: Glimpsing at the past, projecting the future*, editors Vítor Rodrigues, Ana Cristina Martins, Maria Cristina Duarte, Maria Otilia Carvalho e Luís Frederico Antunes, IICT, April, bilingual brochure with DVD, pp. 1-33

Macedo, Jorge Braga de, Joaquim Oliveira Martins, João Jalles and Luís Brites Pereira (2013b), Globalization, Democracy and Development, *NBER Working Paper* n° 19575, October

Macedo, Jorge Braga de (2014a), A globalização liberta a lusofonia, Comment on Araújo, João and Tenório de Figueiredo, José (2014)

Macedo, Jorge Braga de (2014b), Promoting business across the regional integration platforms of the Community of Portuguese-speaking Countries (CPLP), presentation to EBCAM, Cascais, November

Maddison, Angus (2001), *The World Economy: A Millennial Perspective*, OECD Publishing.

Maddison, Angus (2007), *Contours of the World Economy 1-2030: Essays in Macro-Economic History*, Oxford University Press.

Mold, Andrew (2010), Maddison's forecasts revisited: What will the world look like in 2030? *VoxEU*, 24 October

Nye, Joseph (2002), A whole new ball game, *Financial Times*, December 28

OECD Development Centre (2010), *Perspectives on Global Development 2010 – Shifting Wealth*, OECD, Paris.

PCM (2011), *Internacionalização e Desenvolvimento*, Relatório de Grupo de Trabalho Lisboa, Presidência do Conselho de Ministros com apoio do IICT.

Reinhart, Carmen and Kenneth S Rogoff (2009), *This time is different: eight centuries of financial folly*, Princeton: Princeton University Press.

Reinhart, Carmen and Kenneth S Rogoff (2010), "Growth in a Time of Debt", *NBER Working Paper* 15639.

Unger, Roberto Mangabeira (2009) *Keynote Address CIGI'09*, October 3

Tett, Gillian (2009), Waking up to the 'silo curse' is far from the end of the problem, *Financial Times*, 9 October

Tett, Gillian (2012) Wild animals and the human jungle, *Financial Times*, August 24

Teulings, Coen & Richard Baldwin editors (2014), *Secular Stagnation: Facts, Causes and Cures*, VoxEUorg Ebook;

Vernon, Raymon (1970), *Sovereignty at Bay*, New York: Basic

Wolf, Martin (2014), *The shifts and the shocks*, Allen Lane.

Wolf, Martin (2015), The riches and perils of the fossil-fuel age, *Financial Times*, March 3

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The project of writing to a fictional Portuguese-speaking Queen on the crises proceeding since 2008 builds on Letters to Queen Elizabeth written by the British Academy. The project seeks to raise awareness of the complementarity between economic potential and cultural legacy in the Community of Portuguese-speaking Countries (CPLP) insofar as members, observers and their areas of economic integration encompass the globe.

This expanded edition is dedicated to the memory of Manuel Jacinto Nunes, who supported the project as dean of the economics section at the Lisbon Academy of Science.

The cover shows a crown with nine CPLP flags in the form of number seven rising from the waves. The waves of lusophonia appear far gentler than Poe's maelstrom, reproduced in the back flap.

This material, inserted in the proceedings published on IICT's 130th anniversary, is used at NOVASBE through its Center for Globalization and Governance (CG&G).

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