



18th Sir Arthur Lewis Memorial Lecture

6 November 2013

**Sir Cecil Jacobs Auditorium
ECCB Headquarters
St Kitts and Nevis**

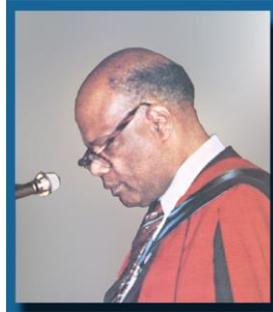
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Eastern Caribbean Central Bank
St Kitts and Nevis*

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Sir William Arthur Lewis
(1915 - 1991)

Sir William Arthur Lewis was born in Saint Lucia of Antiguan parents who had migrated there 12 years earlier. At the age of 17 he won the



St Lucia Island Scholarship. He attended the London School of Economics (LSE) where he studied Business Administration.

He graduated with first class honours in 1937, and continued his studies obtaining a PhD Degree in Industrial Economics. He subsequently taught at the London School of Economics (LSE) and at the University of Manchester, where he was made full Professor in 1948, at the age of 33. Sir Arthur also taught at Princeton University and was made an emeritus professor of political economy.

He was Principal of the University College of the West Indies and in 1962 became the first Vice-Chancellor of the University of the West Indies. He was knighted in 1963. In 1970 Sir Arthur became the first President of the Caribbean Development Bank. He was awarded the Nobel Prize for Economics in 1979.

Among his major works are: “The Industrialisation of the British West Indies”; “Labour in the West Indies”; “Economic Development with Unlimited Supplies of Labour”; “The Theory of Economic Growth” and “The Agony of the Eight”.

Today his image is on the hundred dollar note of the EC currency as a deserving symbol of his remarkable contribution to regional integration and sovereignty.

Transcript of the
18th Sir Arthur Lewis Memorial Lecture
**“Awesomeness in Troublesome Times:
The New Industrial Revolution and the Workforce
in the Eastern Caribbean”**

By

Dr Neville Duncan

Professor Emeritus

Sir Arthur Lewis Institute of Social and Economic
Research

University of the West Indies

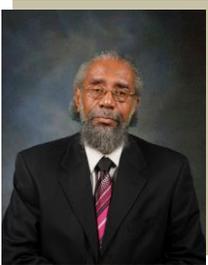
Sir Cecil Jacobs Auditorium, ECCB Headquarters,

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Dr Neville Duncan

Professor Emeritus, Sir Arthur Lewis Institute of
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Dr Neville Duncan holds the BSc Economics and MSc Government Degrees from the University of the West Indies, and a Ph.D. from Manchester University, England. He is a retired Professor of Caribbean Policy Studies and a former Director of the Sir Arthur Lewis Institute of Social and Economic Studies (SALISES), UWI, Jamaica. Dr Duncan, a political scientist, has researched and published on Caribbean government and politics, political economy, poverty, community empowerment, and non-governmental organisations, and on issues of international relations and development.

He is the author/editor of nine (9) books or monographs, twenty three (23) consultancy reports, over 70 academic and scholarly articles, several other

published research, and hundreds of papers and manuscripts. He has undertaken considerable scholarly work in governance, poverty and community development and has had important consultancies with various regional and international organisations including: the World Bank, OAS, UNICEF, ILO, CARICOM, and OXFAM.

He is a member of the National Council of Local Government Reform in Jamaica, functioned as coordinator of research for the Council and acted as its Deputy Chair. His service to the University of the West Indies community has been extensive, having served as chair of major committees, led the staff trade union, headed the credit union, organised many international conferences and enhanced the reputation of the University of the West Indies through his public service and scholarly activities. He is well-known for his public commentaries on Caribbean Political Economy. Dr Duncan is now a managing director of Better Bee Supplies and Services Company, Jamaica, Ltd.

**Awesomeness in Troublesome Times:
The New Industrial Revolution and the Workforce
in the Eastern Caribbean**

Neville C. Duncan, PhD, Professor Emeritus

Opening Shots!

Although many of us might not be quite aware of it, the world has already changed radically in all dimensions of personhood existence! Sir Arthur Lewis would have been excited about these times and his theories of industrial development would have reflected these transformative possibilities for Eastern Caribbean political economy developments and the identification of the best path for smaller economies in a more exciting, safer and productive world!

I can say this with utter confidence since his office was opposite mine at the Cave Hill Campus of UWI and we shared long and creative discussions standing in the doorway of either office when he came often to

Barbados as a visiting economics scholar in the Faculty of Social Sciences.

I was also astounded about how ultra-modern his economics had become as well as his economic quantitative analytical skills; and yet they were humanised, as they always were, with his sentiments remaining with the incorporation of the poor and disadvantaged in economic development policies and strategies into new industrial technologies. In more precise terms he had become a post-modernist economist when most people's impression of his economics was that of the old political economy model of the British school. He had distinctly transcended this!

In this mood and with this inspiration I will address the discontinuous changes which have occurred globally and are still occurring and at an even more rapidly transforming pace. Correspondingly, I will address the rise of a new economy perspective to match the complexities of modern sociopolitical life. So please open your minds to new and exciting possibilities even

when we are most poignantly aware, in this immediate period, of the stark dangers of the next two or so years for life as we currently experience it because there is no easy way to overcome socio-economic and financial crises in Western Industrial states. All states will be deeply contaminated by this.

Yet, for all the real dangers and troubling anticipations of the immediate present, in any balance sheet presentation, examining concurrent financial and economic transformations, the new **industrial revolution will come to overshadow these at least until the end of the 21st century.**

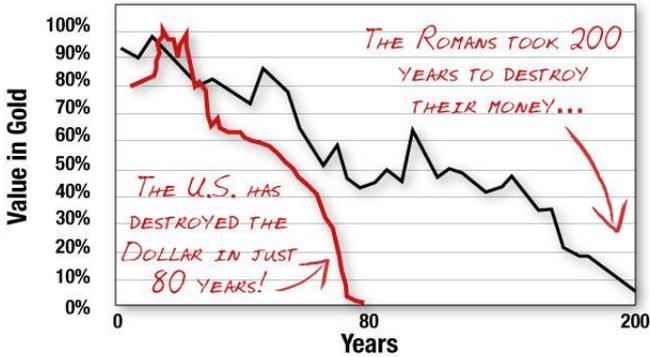
Overview of the US situation primarily

The present situation is that “unless the debt ceiling is raised, the U.S. Treasury will default on hundreds of billions of dollars in debt obligations in less than a month. Such a default would absolutely undermine the credit worthiness of the USA, causing the future debt burden to start wildly multiplying in a runaway

mathematical explosion that can only end in financial collapse”.

With the recent decision of Congress to avert a financing shutdown of the Federal Government, we just witnessed a kicking of a fused bomb of financial and economic crisis for the Western world down the road. As you win, you lose! These are still dangerous times and a deep economic recession seems just as likely in only a few months from now.

The problem remains unresolvable because the US debt domestically and internationally is going to result in a worthless US dollar. The debt (on and off the books) is simply un-repayable and cannot be attenuated for much longer by just raising the debt ceiling through quantitative easing. Since the Federal Reserve Bank was set up just over 80 years ago, the US dollar has lost 95+ per cent of its value against gold. It took the Roman Empire 200 years to accomplish this loss in value of the Denarius!



Source:

The US dollar has already been losing its reserve status and the continuing squabble over raising the debt ceiling for Federal Government spending confirm to major economies, that the US dollar should be ditched as soon as is feasible. There may arise a new US dollar or global electronic currency (a BANCOR or a “world bank” that issues universal plastic cards in one universal value and is portable everywhere). **For now it is important to note that all citizens and central banks vary their foreign reserves holding to incorporate other major currencies and invest in gold, silver, uranium, etc. so as to not lose value.**

The economy of China is said to be a **“house of cards”** ready to crumble at any time with several “empty” airports, seaports, modern railways for super-speed trains, massive apartment buildings and the like. Yet, like the US economy, the greater flexibility and resilience in its economy and politics often goes unrecognised. As for an understanding of the USA economy, a balance sheet approach is necessary.

Germany’s economy is manifestly the strongest in Europe but it cannot and does not want to continue to carry the burden of failing economies of Portugal, Spain, Italy, Ireland, and Greece. This is especially true with the European Union (EU) workforce not being replaced fast enough indigenously as the population ages and lives longer; and is filled by increasing numbers of migrant and foreign-born residential workers from elsewhere. In any case, the vast bulk of technological innovations is within the economy of the USA and to a lesser extent China.

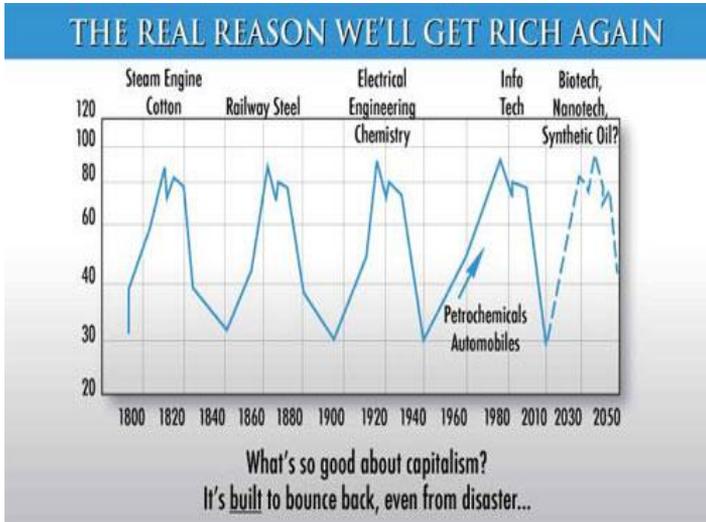
India’s population growth and its significantly younger population, makes it a future industrial powerhouse.

Indeed by 2050 it is expected to overtake China in population size and have a faster economic growth rate. Then there is the former economic giant Japan still wrestling with no or slow growth for well over a decade and it remains to be seen whether its aging population and nuclear disaster challenges will prevent it from becoming once again a major global economy player.

All this is said mindful of the real possibilities of war between the “East” and the “West” of grand proportions over culture and religion, war over energy (then perhaps not), global food shortages caused by water scarcity (especially truly potable water), counter-productive genetically modified weedicides, pesticides and fertilizers, and climate changes, as well as massive under-ocean testing of weaponry (nuclear and other weaponry which may irrevocably change the physical face of the earth disastrously).

The Phoenix Rising

The new industrial revolution, already underway, represented in a Kondratieff-like chart below, is revealing a discontinuous set of changes which will astonish us as we experience them more in the next few years.



(Source: Patrick Cox, Co-Editor, "The Six Biggest Technology Events of the next Ten Years", in Technology Profits)

There are some changes which may take a generation or two or three (maybe the rest of this century) to come to full fruition. These include artificial intelligence and humanoid robotization which will “free” 70+ per cent of our workforce from drudge work and leave them with, perhaps, purely bored lives if they do not find ways to live culturally, artistically, scientifically and peacefully in the world among all its peoples. As one author had put it, though most of us complain about having to work, work is the only activity that men and women have put up with without being bored to death for any reasonable length of time each day!

We must be aware, too, of the revolution in the biomedical field, through the use of biotechnology and nanotechnology, to “cure” all diseases with precisely targeted medical “bombs”. Nanotechnology will prolong healthy lives considerably, keeping us ever-young in mind and body.

Already in place is “Targeted Antibody Payload” technology (TAP) which permits medical doctors to penetrate infected cancer cells, for example, leaving

normal cells untouched by attaching cancer-killing drugs to bio-engineered antibodies. It is 10,000 times more effective than today's radiation or chemotherapy treatments for cancer and many times safer for the patient too. This is merely one example of biotechnology and chemistry engineered revolution in health, fitness and anti-aging. It represents a great harmonisation of several scientific disciplines to bring these radical changes into being.

This will be aided by the quantum/nano computer, based on spintronics technology – a massive game-changing technological advance whose use in application in every field of human endeavor is beyond imagination at this time. The amazing increases in computer speed will help with research and development and testing of products at rates a million times faster than the fastest current computer speed, and its general availability will become commonplace, in the next few years.

It will also be complemented by “growing” body replacement parts and organs using your own stem cells

and through the rapidly growing scientific capacity to lengthen our telomeres to achieve life span extension and youthful looks.

Three dimensional (3D) printers are already in commercial use and their widespread development in a few short years will drastically change the nature of manufacturing and how trade between countries will occur (Mottley Fool, Say Goodbye to China: the Future is Made in America). The need to ship anything will be considerably reduced. It can produce virtually anything; from human body parts, to machine and materials parts replacement, once the appropriate materials are available.

A corollary to this is the already developed capacity to use machines to separate out and extract all kinds of processed ores from junk; lead batteries, cell phones, refrigerators, motor vehicles, etc. This is done at prices significantly lower than that which is produced from increasingly expensive open and deep mining processes.

While there is ongoing interesting scientific research on converting the unlimited availability of solar and geothermal power into readily available energy and in achieving significantly increased capacity of new storage batteries, natural gas and petroleum products are making a comeback. This is occurring in this hemisphere, though not exclusively in Mexico, USA and Canada through shale gas and fuel oils with the use of fracking and horizontal drilling. These processes are also very harmful to the potable water supply.

There are also other energy processes that will become highly economical and smaller island states could exploit some of these. The most promising may be cellular oil, obtained by using microbes on pond algae. Yet nuclear-uranium-based energy generation still has life in it as basically indestructible new plants are designed and established all over the world. Nevertheless, an even more exciting development, which when it rapidly replaces uranium in nuclear plants will make the availability of cheap energy universal.

It is **thorium**. A marble-sized piece of thorium can produce all energy that humans will ever need. It can generate 639,000 times more energy than oil; create 99 per cent less waste than coal; is four times more abundant than uranium in nature, and it does not create carbon emissions! Just one gram can produce the same amount of energy as 7,500 gallons of gasoline. Eight grams would be enough to power every vehicle you may drive for the rest of your life. Used as a nuclear fuel it produces 10 times more energy and generates 99.4 per cent less waste. It is non-fissile, has a boiling point of 4,700 degrees Celsius and almost 1,000 degrees higher than uranium, essentially therefore meltdown-proof. Just to clinch the point, it is half the price of coal and costs five times less than natural gas.

Finally, the comparative costs are as incredibly stated in the table below!

| Cost to Produce 1 Million BTUs of Energy | |
|---|--------------------|
| Oil | \$18 |
| Natural Gas | \$5 |
| Coal | \$2 |
| Uranium | \$0.92 |
| Thorium | \$0.0000081 |

(Source: Laura Cadden, Associate Publisher, The Oxford Club July 2013)

We must refer to three minerals which Byron King (Energy and Scarcity, March 2013) identified as astonishing game-changers -- graphene, vanadium and beryllium. Graphene will soon replace plastic, kevlar and the silicon chip. It is a sheet of carbon atoms

150,000 times thinner than a human hair, 200 times stronger than structural steel and is extremely light. It is one of the best conductors that humans have created. Electrical goods manufacturers are excited about this product. Soon batteries will be a thing of the past as the new energy source will be vanadium mixed with a liquid. Beryllium is already indispensable in the recovery of shale oil and shale gas. It is 30 per cent lighter than aluminum, 6 times stiffer than steel, and is non-magnetic and non-sparking.

These and other numerous amazing game-changing bases for the new industrial revolution can of course be suppressed by international bankers, working in collusion with major petroleum and pharmaceutical companies and international and national power economic elites in and surrounding governments. Yet, I think there can be no stopping such gigantic changes which will revitalise the US economy and re-confirm its status as the major industrial country in the world for the rest of this century at least. This 21st century would remain as some had predicted, the US American Century.

This does not mean we must not protect our currency, especially the financial reserves, from the more than likely collapse of the US dollar in the very near future by diversifying the currencies in which the reserves are held and in metals such as gold and silver. In this latter regard, do not be confused by recent fluctuations in the price of gold. The trend is upwards in relation to the US dollar and several other major currencies.

We have merely scratched the surface of the nature and power of the rising phoenix of this majestic industrial revolution. There are presaged considerable changes in society, the nature of governmental power, and the levels of undreamed prosperity. Such sharp discontinuous changes will bring great pain to our Caribbean economy and our lives, while the new industrial revolution is blossoming. Being aware of the grand changes underway and being urgently committed to find ways of becoming, in anticipation, part of the new, makes likely the possibility that our countries can survive and then enjoy astonishing prosperity.

So this is not a doomsday or an end of times scenario! Yet, let us examine some of the challenges we face more specifically.

Challenges and Opportunities

This new and truly radical industrialisation process demands/needs a **specially trained and highly technical workforce** (few in number!). Automation and robotization will rapidly vanquish the need for most of today's workers. A new society will be needed to productively involve such billions of by-passed workers. It may be that, instead, they will be euthanized through a variety of new chemical technologies which induce massive "die-offs" of now "useless" billions of people, if wars and new warfare weapons do not directly or indirectly decimate the no longer needed for production, children-bearing and service delivery population! So the only real way to ensure the future needs you is to **invest in your education** and boost your mental skills to innovate, create and communicate. Make your dreams a reality

through disciplined self-investment, entrepreneurship and action

http://www.naturalnews.com/042276_robotics_revolution_worker_displacement_depopulation.html - [ixzz2guW4nplu](#).

A corollary to this is already seen in the reversing of the trend towards outsourcing of production and services. Liberal immigration policies will cease totally. The availability of remittances will be seriously curtailed and there may even be a move to repatriate or encourage the voluntary return home of “migrants”, even if they or their children attained citizenship in the industrialised economies.

Continents and Islands are being sharply reconfigured in this new industrialisation explosion. Several Island states survived by exporting labour to new production sites in the old outsourcing globalisation model, sending back urgently needed remittances to the sending countries. Those opportunities are quickly evaporating, including for the millions of immigrants who are now working in non-3D manufacturing jobs or

once worked in jobs which are now being fully automated and robotized.

In the short and medium term, workers from the OECS states and territories will face the direct challenge of the inability to migrate to jobs outside the OECS. The future of mass tourism will be deeply uncertain yet there may still be a sufficient demand for visitors wanting to get away from the rising new economies and their possibly confining social order.

Even offshore financial services such as insurance and banking may die a sudden death as universal “plastic” cards and tighter international control of flight capital make such protective devices of income tax avoidance impossible.

We cannot expect the international donor countries and International Aid agencies to continue in existence. So a future-scoping on the immediate and short-term for the Organisation of Eastern Caribbean States (OECS) seems to suggest a daunting future. Yet it is also true that **a crisis is a transition not a problem for those**

who are prepared to be flexible, re-imagine a new and exciting future and ditch the “normalcy bias” which keeps us locked in unproductive and uncreative activities. One such way is how any economy is conceptualised.

Changing Mind-Sets

The very same path-breaking new technologies, radically leading us into the new industrial revolution **are accessible through education, research and Intellectual Property Rights lease or purchase by individuals and countries in all island states.** This allows our countries to be able to speedily possess the capacity to free themselves from several of the constraints of smallness! We merely have to make the sacrifices to participate fully, very early in the game.

The role for a new educational system, from pre-school to high level academic and technical institutions, needs radical expectation and design. If the re-design is not realistic and well-thought out with societally active participation, then there will be **the danger of**

economic, social, cultural, political and psychological regression. Then we will become as stagnant as the wide Sargasso Sea.

Breaking into an Appropriate Economic Framework

State-centred policies of development have been tried but have not performed optimally in generating higher real income, better living standards and more equity. There were achievements to be sure, but in general the results were sub-optimal.

Much of this failure to achieve maximum outcomes has been due to the adoption of an inappropriate economic model of development in either the Keynesian or classical varieties, which represent the current economic paradigm of the past 100 years. No doubt many stunning economic developments have occurred globally, but sharp periods of recessions and depressions partly demonstrated that the dominant models were wasteful, un-economical and environmentally destroying. These led to gross inequalities within countries.

We in the Caribbean **failed to predict or explain the financial collapse and economic recession** which has put neo-classical economic thinking into a tailspin. So we were never prepared for it! This inability to predict or explain sharp fluctuations in economic growth is just one of the real world phenomena that traditional economics is poor at understanding. From actual human behavior through to the effects of constant innovation, the explanatory struggle continues. It is a serious dissonance and leads essentially, in rich and poor countries alike, to a distorted form of development.

The ECCB and or CARICOM should establish a **Global Watch** institution or team initially which will constantly monitor the almost daily stunning developments in science and technology, convert the findings into weekly or monthly policy reports and recommendations to all Ministries, Private Sector groupings, Labour Unions, Non State Actors, and especially to entrepreneurs and potential entrepreneurs. The ECCB will subscribe not so much to economic

journals but to online journals and reports from major investment research institutions. The core reason is to learn of breaking developments and assess them for policy action.

A new and more appropriate economic paradigm should consider the contemporary schools of **complexity and evolutionary economics**. These and other theories have emerged as important critiques of Keynesian and neoclassical thought and the mathematical models and abstractions that lie at the heart of general equilibrium theory. New economic thinking focuses on **evolutionary economics** which draws on the work of Joseph Schumpeter and **complexity science** which has its roots in the natural sciences. It touches also on closely related fields, including **behavioural science** and the **study of networks**.

Eric Beinhocker (**The Origin of Wealth**, 2007) shows how the economy is more akin to a “complex adaptive system”; that is, an entity made up of heterogeneous groupings of agents, networks and institutions, which

are influenced by and adapt to one another's behaviour as well as to the surrounding environment. Within this system, **activity is driven constantly by a multitude of overlapping and interconnected processes, which tend not to lead to a given fixed point or necessarily follow a specific cycle** (Day 1994). Hence, the economy is never in equilibrium or even geared towards achieving equilibrium, but instead is constantly evolving in non-uniform and dynamic ways, driven by so-called "emergent phenomena" (as summarised by David Nash, p.10. in Tony Dolphin and David Nash, *op. cit.*).

Yet for all this critique, alternative development strategies will fail if deep consideration is not given to how to **deal with these in a manner more akin to achieving a win-win situation**. The issue of education and promotion of technological, innovative and entrepreneurial development in the OECS is of utmost importance and should occur within a framework of the promotion of science and technology as the centerpiece of development strategies. As Pauline Anderson and

Chris Warhurst (“Lost In Translation? Skills Policy and the Shift to Skill Ecosystems”, in Tony Dolphin and David Nash, *op cit*) stated, “education and training systems needed to be firmly embedded within a much larger configuration of institutions and that all institutions in this configuration were to be interdependent”. In this way there is less danger that education and training will become less relevant for social needs and global economy participation.

As David Nash has noted (in **Complex New World: Translating new economic thinking into public policy**, edited by Tony Dolphin and David Nash, August 2012, IPPR 2012:5) “across the developed world, governments are treading uncharted territory in their attempts to shore up their banking sectors, bring sovereign deficits down to sustainable levels and reboot economic activity after the worst recession in living memory. High unemployment, falling living standards and a widespread perception that small groups of elites continue to enjoy unbridled excess have brought the crisis in economics to the fore of our everyday lives”.

Oftentimes our Caribbean governments seem inadequately aware of global impacts on their economy and are equally unaware of the oftentimes inappropriate response they make to it.

Politics and Economics require a redefinition of political economy **in the context of modern realism**. This is now clearly understood. Such awareness and fluctuations **also require changing the role government and its bureaucracy in economic and social development**. It is not merely to intervene to manage a return to some mystical equilibrium. Nor is it about the state making up for market failure by direct intervention motivated by the ideas of Karl Marx or by John Keynes. It is much more about policymakers **acquiring the capacity to shape the environment in which plans or projects are more or less likely to succeed or fail according to their ability to meet society's needs** (Amna Silim, *ibid*: 23). As Silim also noted:

Crucially, policymaking from an evolutionary economics perspective recognises that the state

is limited by the same factors facing agents: **it is not, and cannot be, in possession of a full set of information**. Therefore, the state must be willing to learn from experience and adapt its approaches. Policymaking needs to be more flexible and willing to break with organisational routines (ibid: 24) (*emphasis mine*).

Paul Ormerod (“Networks And The Need For A New Approach To Policymaking”, in Paul Nash and David Dolphin, op. cit.: 29) also recognised that “real-life social networks – such as family, friends and colleagues – are even more important in helping shape our preferences and beliefs, what we like and what we do not like”. “Network effects require policymakers, whether in the public or corporate spheres, to have a markedly different view of how the world operates” (ibid: 30).

Michael Halsworth (How Complexity Economics Can Improve Government: Rethinking Policy Actors, Institutions and Structures”, in Paul Nash and David Dolphin, op. cit.) noted that “As the tasks of

government have grown and become more complex, so the need to consult and coordinate has grown as well". He also recognised that, "the process of applying complexity to government should itself be **one that proceeds by experimentation, adaptation and learning**". Geoffrey M. Hodgson (**"Business Reform: Towards an Evolutionary Policy Framework", in Paul Nash and David Dolphin, op. cit.: 71) supported such views on the role of the state in response to uncertainty.

With its concept of equilibrium it **concentrates on allocative rather than dynamic efficiency**: ... the focus is on distributive adjustments to actual or possible equilibria, **rather than creating the conditions for innovation and growth**. ... And it ignores *other possibilities for state intervention, such as shifting the system from one institutional or technological 'locked-in' situation or 'equilibrium' to another.*

The role of the state is often to supplement and guide markets, and the choice of market and state involvement are not mutually exclusive. Are some economic activities in a “locked in” situation and should be encouraged to shift out? Are there opportunities to persuade the productive sector to shift into which they may be fearful or reluctant to move into? Would initial participation with state support help to accomplish this?

The OECS should not back away from such recognition of the implications of pursuing **an alternative economic development path**. Indeed it should countenance the development of a new economic paradigm and assist those who engage in productive activities in the OECS to **shift from dead-end situations into dynamic opportunities provided by new global openings**. The reason for this is the state always has the responsibility to ensure equity in outcomes for all its citizens.

What should be evident is that countries can no longer continue in the old way with the old national and

international collaborations and truly hope for dignified and successful outcomes. It will not be easy since there is a “normalcy bias” predilection in each of us and in each country in spite of the dramatic changes which are constantly occurring around us. This time it seems that the rate of change and its likely radically-shifting nature require reflexive and deliberate actions on the part of each country to seek first survival, then success, in any emerging order. It will not be easy since the principalities and powers of the current order will be reluctant to change and will subtly or openly delay or block such efforts.

We have little reason to believe that the OECS is any different. Yet awareness of the realities may induce requisite activities from the state bringing in new and wider coalition of social forces and network into the decisional matrix thereby deepening national commitment and propensity to implement agreed new ideas.

Notwithstanding what has been presented, it would be foolhardy not to plan a response for **a range of**

possible emergent futures. This is what a **Global Watch Institute** would help in providing by deeply analysing changes in modern socio-economic life. It should best be situated where all interests are represented – not merely in public and private research universities and institutes and not for writing scholarly papers but providing real data and analysis on powerful breaking global and regional scientific developments being converted into economic activity.

A Coming Together

Enough has been said about the vast and discontinuous change occurring in the global industrial base spurred on by technological and scientific developments. Indeed, these are not discrete happenings. There is an inter-blending of scientific disciplines creating these quantum leaps toward a more prosperous and better future for humanity. We have merely presented a sample of these changes and did not tap into the thousands of recently issued patents to innovative firms leading this charge. They are nevertheless sufficient to indicate the speed and magnitude of the processes

already underway in installing a new industrial revolution.

The claim being passionately made is that the OECS needs to integrate its economies so that they can become thriving and not dying ones into this emerging order. It is not accomplished by wishful thinking. Knowledge must be acquired and a deep assessment of the several ways in which we can actually participate in the rising new scenarios of the future must urgently be established. With a new economics and a new world science-driven political economy come the imperative for deep social and political restructuring. We have described elements of the new economics required for this postmodern industrial society. They in turn will feed on evolving political structures and procedures and evolving societal and regional relationships.

None of this is theoretical or abstract. It is indeed a radically new situation at the macro and micro level. Let us get on board with practical steps now.

Neville C. Duncan

