

# QUANTUM GOVERNANCE

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# QUANTUM GOVERNANCE

Rewiring the Foundation of  
Public Policy

By

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INVESTOR IN PEOPLE

*A ma famille*  
—Fadi Farra

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## ABOUT THE AUTHORS

The book has been published by Whiteshield, a global public policy and strategy firm originating in the Harvard and OECD communities that specialises in delivering innovation and tangible policy reforms to a portfolio of leaders from governments, international organisations and Fortune 500 companies.

The book has been developed under the leadership of Fadi Farra, Founder and Managing Partner, Whiteshield, Former Lecturer at the Harvard Kennedy School of Government, and Former Head of Unit, OECD. Fadi Farra has more than twenty years of experience in strategy consulting and policy advisory globally, including industrial and innovation policies, microeconomics, private sector development and competitiveness policies. He is the author of numerous publications related to innovation, competitiveness and industrial policy, and a regular commentator in leading world media. As founder of Whiteshield, Fadi Farra received distinguished awards for his outstanding achievements in the field of consulting. In 2019, he was honoured with the Global Leaders in Consulting Award with Excellence in Innovation. Additionally, Consulting Magazine recognised him as one of the Top 25 Consultants in 2021 for his outstanding contributions to the public sector. Fadi's expertise is widely acknowledged, as evidenced by his chairmanship of the Global Agenda Council on the Future of Manufacturing Council at the World Economic Forum. He is also a frequent commentator in global media.

Sir Christopher A. Pissarides FBA is a British-Cypriot economist. He is the School Professor of Economics & Political Science and Regius Professor of Economics at the London School of Economics, and Professor of European Studies at the University of Cyprus. His research focuses on topics of macroeconomics, notably labour, economic growth, and economic policy. In 2010, he was awarded the Nobel Prize in Economics, jointly with Peter A. Diamond and Dale Mortensen, "for their analysis of markets with theory of search frictions". He is also a Special Advisor and Director at Whiteshield. He served as the chairman of the National Economy Council of the Republic

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# FOREWORD

David E. Bell

I am a marketing professor. A lot has changed in my field in recent years. Now marketers try to influence your buying behaviour by sending you **personalised** ads through social media. The ‘personalisation’ is automated because it is possible to track how you responded to previous ads, when you bought, when you didn’t and so on. Advertisers know exactly how effective their campaigns are. They also know that people are highly influenced, not so much by the marketers themselves, but by people they trust. In the old days, these **influencers** were friends or neighbours. Now they are more likely to be people who have developed a following online and who can influence their followers on what to buy. Advertisers now try to co-opt these **Key Opinion Leaders** by courting their opinion or, more simply, paying them a fee. In China, there are highly watched online ‘talk shows’ where the guests are celebrity KOLs.

There are so many other changes in our lives brought about by digitalisation that it’s hard to keep up. Cryptocurrencies like Bitcoin soon could hold more value than all of the world’s gold. This in a handful of years, and all due to digitisation.

Politics is also not what it was. ‘Smoke-filled rooms’ are long gone. The public used to find out, if they did at all, about who voted for what, long after the fact. Now, every politician’s votes, statements and blunders are known at once. The amazing political ascent of Donald Trump may have been due to his constant tweeting: talking directly, constantly, to his supporters, an example few seem to be copying.

There is a common lesson in these transformations. It is that we should no longer think of people in terms of demographics, like the middle class, the left or the baby boomers, but as individuals, because we now can, and we should.

Public policy has not got that message. Governments still make investments, launch programmes and urge the citizenry as if people came in blocs, often just one bloc. This book is a call to action to rethink how we do public policy. The authors call it **Quantum Governance** to highlight the central role of the individual.

Their proposal is not just a think piece. They have carried out a systematic analysis dissecting public policy effectiveness across most countries of the world. They have identified a number of fixable issues:

1. Governments tend to launch programmes without enough regard for the **absorptive capacity** of the people. If you have your thirteen-year-old listen to online college lectures, it won't do any good because the child doesn't yet have the capacity to take it in. People come in all shapes and sizes, with respect to how they process information, their capabilities and their needs. Public spending that exceeds the absorptive capacity of the nation is a waste of money. Some countries may need to invest in building, or at least measuring, absorptive capacity.
2. Public policies interact with one another, yet they are often supervised, funded and monitored as if they are independent. These days we can figure out how they interact and plan accordingly. The authors present a 'periodic table' illustrating how policies may be seen as interrelated.
3. Companies are increasingly turning to the concept of a Balanced Scorecard to assess their condition and to measure progress. By analogy, countries need to consider how they measure their nations' balance sheet: how well off are they? Age-old measures like GDP and Balance of Payments don't capture the cumulative welfare of individuals, their potential or their quality of life. These measures were invented when data was hard to come by and never did a good job handling the intangibles of value creation.

The authors propose a new equation for understanding the effectiveness of public policies in which government actions and capabilities should be in balance with the **absorptive capacity** of the people. In marketing, we have a concept of the customer journey: a person begins the journey never having heard of a product, then they become familiar with it, then they develop an opinion, then they decide whether to buy or not. These journeys are highly idiosyncratic and highly dependent on **influencers** and **cultural norms**. In the

public policy arena, one speech from the White House cannot possibly transform the thinking of many.

On the other side of the equation, governments should introduce good policies, more accurately a **good mix of policies** and implement the policies **efficiently**. However, more than that, they need to have the capability to **persuade** and lead. In today's partisan world, half of a country's people may not find the leadership credible.

There is much more detail to be found in theory and in the book. I think you would agree that in this digital age where breathtaking change is happening in almost every facet of our lives, the way in which governments manage our quality of life is ready for a makeover.

*David E. Bell*

Professor at Harvard Business School

## PREFACE

*Where do we stand as a global community in terms of development?* Some might argue that before COVID-19, things were looking up, economies were fully recovering from the 2008 Financial Crisis, exponential technological progress was holding the promise of accelerated growth, and according to the most optimistic analysis, there was the promise of better jobs and a net creation of new ones. Low- and middle-income countries were achieving noticeable progress in poverty reduction, and the win-win scenario of green economies combining a lower environmental footprint and higher innovation and growth was depicted as a reachable and attractive future.

If we look closer at key facts, the myth of the great acceleration might be just that: a myth. Economists have been grappling with the productivity paradox where the technological miracle is not fulfilling its economic promises, productivity growth being at its lowest historical levels. Displays of social unrest have been accelerating all around the world with the emergence of several large-scale movements, be it the Arab Spring, Occupy Wall Streets, climate strikes, or the Black Lives Matter movement. Combined with the rise of populism, this denotes the erosion of social cohesion and strong opposition to the status quo and our traditional societal paradigms. Finally, the United Nations cannot repeat this enough; the world is overwhelmingly not on track to achieve Sustainable Development Goals. COVID-19 is set to make things worse with implications far beyond the short-term impact we are seeing. What started as a health crisis has since evolved into a deep, economic, social and political one. A crisis threatening to reverse thirty years of achievements in poverty reduction, double the number of people facing starvation, set us back in the transition towards greener economies as short-term priorities prevail and worsen our monetary infrastructure as central banks around the world engage in perpetual money printing to try and contain the socio-economic damages.

However, there is a silver lining linked to our human tendency to revisit fundamental questions in a crisis context. Indeed, the crisis offers a window of opportunity, a small time-bubble during which people are collectively drawn to understanding what went wrong, asking what it was that brought us here, and considering changing our business-as-usual practices, frameworks and paradigms. We invite the readers to engage in this long-overdue process to avoid wasting this opportunity. By bringing attention to fundamental questions, we set out to identify the constants of development, the key drivers of changes across the space–time continuum of our societies.

This journey led us to the conclusion that we need a new policy framework. One that does not rely on linear mechanistic thinking, and one that is not constrained by a reductionist approach to the world, segregating realities into artificial dichotomies and abstract silos: the economy, the private sector, the civil society, education policy and innovation. One that is aligned with real-world complexity and one that takes the individual as the main unit of analysis and action. For far too long, we relied on a misleading vision of human beings, portraying them as simple atomistic agents. We need to bring back the individuals in their full complexity to the change formula. For any social organisation is nothing else but a network of interacting individuals and no public policy can deliver impact or progress in development goals without an impact on individuals' lives. People are the key conversion factor. Their ability to absorb public policies and convert them into tangible achievements is the only real driver of change and should be at the heart of our development reflections.

**It is time to centre our actions around the  
quantum unit of the social world: the citizen.**

*Fadi Farra,*

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Nobel Laureate in Economic Sciences

# Introduction

## REWIRING THE FOUNDATIONS OF PUBLIC POLICY

### CHANGE IS EVERYWHERE; WHERE IS CHANGE? THE GREAT PARADOX OF OUR TIMES

‘We have entered a new era’, ‘we are stuck in business-as-usual and need a paradigm change’. Yes, these mainstream narratives at least ring a bell and at most sound cliché because, in the wake of a new decade in the 21st century, we have been hearing them for years, sometimes even from the same individuals, be it policymakers, international organisations, media, experts, business leaders or average citizens. They both coexist in the realm of shared sentiments about our times. However, they are paradoxical. How can we witness structural and radical transformations at a pace that some say has never been this fast, and yet share this impression of global inertia, a sense that we are still operating under the same frameworks? How can reiterated conscious calls for structural change remain just that, calls? If we had indeed entered a new era, why do we grapple so much with defining it?

### A Narrative of Progress...

The ways our lives, economies and societies have changed over the past few decades have been carefully and extensively documented and analysed. These changes are intrinsically related to technological progress and its wide-ranging implications. Saying that we as individuals have witnessed a radical shift in our daily lives, that we have more information, or data, at our fingertips than ever before, that technology has opened up, and continues to open up, endless

opportunities materialized in new ways of working, trading, communicating or learning is simply stating the obvious. Claiming that these changes are not confined to the micro-scale level but are just as prominent in the ways our societies and our economies work has long ceased to be groundbreaking news. Talk about the knowledge economy as the foregone path we are headed towards started as early as the 1960s with American management consultant Peter Drucker's famous 'landmarks of tomorrow'. The hype around the Fourth Industrial Revolution (4IR) somehow already feels outdated, even before its full materialisation, due to how intensively it has been relayed over the past few years. We are all familiar with the narrative that we are transitioning to capitalism without capital, that the key input of our economies has shifted from capital to intangible assets, to talent, data and knowledge, and that production modes are changing from hierarchical to spontaneous and collaborative. Far from us to paint here a utopian picture of a digital era, but the task at hand is not to judge whether it is a positive or negative change, simply to state that the mainstream narrative around progress (or the new era) is a justified and widely recognised one. While prominent, technology-related change does not even hold a monopoly over this narrative. From the enacted change in the world order to demographic trends, to climate change, and corporate and development sustainability, the wide range of transformational mega-trends we are facing corroborates the narrative that we have entered a new era.

... Or Inertia?

The other side of the story is stagnation, the sense that we are locked in a status quo that we have been calling to challenge and change in vain. This narrative might be driven by three related observations.

The first revolves around the scale and the pace of change described above. Technology is changing our lives, but can we really make that statement when half of the global population does not have access to that technology, the famous digital divide, and even more to the skills and capabilities required to use and leverage it? Can we really pretend to have entered the era of the digital economy if we are only focusing on developed economies? Can we claim that 4IR is our new reality when only a handful of companies have adopted its technologies while most countries still need to catch up with the third automation wave? Since exponential technological progress

is not materialising in productivity gains as it is supposed to, then radically new production modes might still be niche segments at the hands of a few visionaries.

The second observation relates to our frameworks: the game might have changed, but its rules did not. The new economic paradigms of the digital age were supposed to shift the focus to networks, to granularity, yet their strongest current manifestations are tech giants, monopolies bigger than ever witnessed in modern times. Collaborative management frameworks are praised and set to be the new norm, yet the top-down hierarchy of command-and-control is still profoundly rooted everywhere, from administrations to the average corporation. Talent and knowledge are said to be the new capital, and we still measure talent as a cost rather than a value. Corporate sustainability has been embraced, but one line of the triple-bottom line still matters far more than others, and prices are still incomplete, not capturing environmental and social impacts. The Sustainable Development Agenda has been adopted by 193 countries but narrow-sided metrics such as gross domestic product (GDP) or unemployment rates still shape the dominant policy paradigm.

The third observation is the recognised need for change confronted by the inability to enact it with the recurrent yet unfulfilled calls for a paradigm shift. These calls tend to intensify after each disruption; each crisis is meant to remind us that there are repetitive failures and a status quo to be challenged. We have seen it with the 2008 Financial Crisis and the COVID-19 crisis which generated converging voices towards the need for a ‘great reset’, a ‘building back better’ movement.

So how do we explain the paradox? Why do we feel that structural and rapid change is ubiquitous and yet still observe stagnation, still operate under the same frameworks and vainly repeat that we need to break out of business-as-usual? Four hypotheses can help us explain this.

1. We have not entered a new era. What we are witnessing are incremental changes within the same paradigm rather than a structural leap towards a new step. The challenge is to reconcile new and increasing external constraints with the fundamentals of this lasting paradigm.
2. ‘The old world is dying, and the new world struggles to be born.’ Simply put, we are in a transitional period, and every transition comes with its challenges and its paradoxes. The full shift to a new era is set and unavoidable but will require more time. Half a century from now,

the hindsight that can only come from studying History will help us uncover how all the pieces of the puzzle fit together to fully enable the emergence of this new world.

3. Looking at the world with outdated goggles: the paradox highlighted is only an apparent one. In reality, if the scale of change does not appear as great as we would expect from entering a new step, it is simply because we are still measuring it with old tools and methodologies. We need a new cognitive infrastructure that is able to accurately depict and analyse these evolutions.
4. It is not about the time or pace of change; it is about convergence. The paradox is a real one and is due to a divergence in operating frameworks. We no longer have a common policy language and a common direction. While parts of our societal systems have indeed engaged in structural transformations, others are still locked in an outdated paradigm, and our global transition's faith is not yet final precisely because of this lack of convergence. The real acceleration can be seen in increasing tensions arising from this divergence.

Relatively strong arguments can be made for each hypothesis, but we are interested in exploring the last one. What are the sources of this divergence in our systems' direction and operating frameworks?

## POLICY CYNICISM: THE GREAT DISILLUSION

Understanding the lack of convergence causing the paradoxes of our era requires looking at the set of institutions, rules, laws and frameworks precisely supposed to enable movement towards a common direction in our societies: public policies. When doing so, one can only notice a strong link between the status quo, inertia sentiment and another common mainstream narrative of our times: failures of public policy.

The second half of the 20th century saw the beginnings of a trend known as political cynicism, a general disaffection with politics from institutions to governments, their decisions, the political process in general and the word 'politics' itself, which became heavily charged with a negative connotation. We argue that this political cynicism has further expanded during the past few decades to become policy cynicism. It is no longer simply a negative image of

policymakers as being corrupt or prioritising self-interest, it is also the notion that the public policy world is too slow, at odds with the agility required for our times, and that policy failures are abundant. Regardless of the actual quality of public policies put in place, regardless of the intentions of policymakers, there is a growing perception that it is simply not enough to tackle pressing and complex challenges. The sentence ‘why isn’t the government doing anything about this’ has become so common that it is impossible to separate the inertia narrative from policy failures. While the challenges and expectations from public policy are rising considerably, its capabilities to respond to them are simply stagnating. The normalisation of this loss of faith in public policy is itself an issue but also just a symptom of a model running out of breath, unable to drive convergence in a critical period of structural transformations.

## CLOSED SYSTEMS: THE GREAT CHALLENGE

US President Ronald Reagan’s ‘Government is not the solution to our problem. Government is the problem’ famously embodies this normalised disillusion with policymaking. At the same time, how this statement has come to be used over the following decade, emerging from the end of the cold war ideologies, hints at the answer as to why policy systems have not been able to adapt and transform in tandem with changing socio-economic contexts, challenges and development goals. The reason is that policymaking became jailed in a closed debate: ‘government is good, we need more government’ vs ‘government is bad, we need less of it’ when actually, to begin with, we should have been questioning the core nature of government, and what type of government we needed. Thus, we are focusing on finding answers without considering the option that we are not asking the right questions. This is the closed system challenge.

Answers are a finite game; they are played within the boundaries, rules and expectations. But questions, fundamental questions, they play with the boundaries, they define them. And a closed system is one that fails to ask fundamental questions and persists in looking for answers within the same boundaries. Closed systems are thus inherently incapable of self-regeneration or spontaneous adaptation and are not resilient. The most dangerous aspect of a system is to become so entrenched in assumptions raised to the standard of absolute truth that it is no longer capable of real change, of admitting those assumptions are not valid anymore; that is when thinking becomes ideology.

This book gives answers, answers as to how policymaking in our times can change to avoid the path that all closed systems ended up facing in History: perishing. But our objective is not to replace a closed debate with another one but precisely to open it, to set a framework where systematic questioning is built in, a framework that revives the importance of questions. What does development mean? What drives civilisational change, from the first urban settlements in Mesopotamia to the creation of the first green smart cities? From the first agricultural exploitations to the knowledge economy? How did we, as a human community, build the world as we know it, and what will define the next steps of our journey on earth? All of these are fundamental questions and asking fundamental questions has long gone out of fashion for individuals in general and, let alone in the policymaking sphere; questions without easy solutions; questions that are too big to answer; questions that are too subversive to normalise. Our objective is to bring them back.

Public policy is dominated by ‘how’ questions: How do we develop? How do we create more jobs? How do we eradicate poverty? How do we use taxes to reduce inequalities? How do we fight climate change? Most current policy questions are ‘how’ questions. Why should we be concerned about that? For two main reasons. First, the answers to ‘how’ questions are stories of change which are bound to evolve. The risk is to stop questioning them and take them as universal truths. Second, ‘how’ questions tend to lead to reasoning by analogy: we attempt to find the answer in what was successfully done in the past or in what is successfully being done in other countries or other regions. The two risks combined means tackling changing problems with outdated or irrelevant strategies. The lens that we should use is ‘what’ questions: What is development? What is a public policy? What is a job? Starting a labour committee meeting with ‘What is a job?’ instead of ‘How do we create more jobs?’ might sound foolish, yet it is the only question enabling us to account for the structural and profound changes of labour markets and the debates around the future of work.

## FINDING THE CONSTANTS IN THE SPACE-TIME CONTINUUM

So how can we use fundamental questions to ensure our policy systems remain open? How can we embed this level of critical thinking and reflexivity

in our frameworks so that change does not become explicable only in the rear-view mirror of History, so that envisioning and achieving present and future changes is possible? We need to shift the focus from narratives of change (answers to 'how' questions) to characters of change or intemporal change factors (answers to 'what' questions). In other words, our analytical frameworks need to be based on variables that have always and will always be the drivers of change because they are inherent to it.

To illustrate this point, let us introduce here a small time-travel thought experiment taking us through three stories of change.

### Tiberius in Rome, Circa 125 BC

Tiberius is one of those few individuals whose mere birth is said to destine them to greatness. He knows History will never forget his grandfather, the man who liberated Rome, the great Republic, from the threat of a fierce enemy: Hannibal. He knows that as his father he will go on to serve in the most respected institutions of the Republic. He knows that shining in public life is what everyone expects from him. The standards are high; election as a Tribune will not be enough for a family whose men held the tradition of serving as Consul, the highest political position in the Republic.

That year, Tiberius had taken his first steps in the public realm. Sent to fight for the Republic in Spain, his army ended up being captured despite all reasonable efforts. Emboldened by the stories of the great men before him, he decided that leaving his people captured was not an option and undertook negotiations for a peace treaty, a task that, despite his prominent social position, was still above his power as a debutant. Nonetheless, and helped by his outstanding oratory skills and a confidence that only men of his breeding could display, he managed to come away with a winning treaty, leaving no man behind while barely conning to the enemy.

He returned to Rome confident he made the right choice, expecting to be praised for it. You can imagine his surprise when, instead, the Senate called the treaty a disgrace because Romans could not afford to stoop to negotiations to surrender. Talks about undoing the treaty started among Patricians (the aristocrats of Rome) and leaders of the Senate.

Tiberius's confusion turned to outrage. He had saved the lives of tens of thousands of Roman citizens. That had to be worth it even if the soldiers

were not Patricians but Plebeians of lower social stature. After all, weren't Romans supposed to be one, unified under the greatest Republic of all? Wasn't his duty, as the descendent of men of virtue and morals, to put the well-being and livelihood of his 'weaker' fellow citizens above all considerations of pride?

However, Tiberius ends up seeing the misadventure as a blessing in disguise. The rumours about undoing the negotiations spread and incited the legions of the soldiers and families he saved to rally around him. Confronted with popular pressure, Senators gave up on their project but could neither forget nor forgive. It was the first time soldiers of the Republic had displayed greater allegiance to an individual rather than the Republic's greatest, most respected institution. It was the first time that citizens of Rome had taken politics out of the institutional sphere, out of the hands of the individuals supposed to represent them and back into their own hands. They were glimpsing a shift in the core of Roman values.

Tiberius knows he has made enemies among the Senators, but he also knows that giving up on his political ambitions is not an option; that will be the greatest disgrace of all for his family's legacy. Before these events, Tiberius could not have imagined being criticised by Patricians and praised by Plebeians. But he decides to lean into this new position and to run for Plebs Tribune. This implies getting to know the concerns of his future constituency, for his own were rather small to non-existent. His family-owned land and houses, their wealth increasing over the years, political life was his destiny, and despite this plot twist, he always knew his future was guaranteed. He knew Plebs and citizens of lower social stature did not have the same life, but he was far from knowing how much their lives had deteriorated over the recent past. His new allies tell him life was much kinder to their fathers and grandfathers.

After his grandfather defeated Hannibal, Romans of all classes participated in rebuilding Italy, which was financially fruitful for all. Generations before them had started borrowing money from the richest to bid on contracts for various rebuilding projects. The less fortunate could work while the rich collected interest from the loans. But over the years, benefits slowed down for the poor while the wealthy kept getting wealthier. Tiberius' allies tell him they are ashamed. They know how their parents lived and they too are capable of the same hard work and strive for the same standards, but have to settle for less. They tell him it is getting worse and worse. While summoned to fight for the Republic far from their homes, they would leave their