
Foreword: Why economics needs its own reformation: 95 theses

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The reformation began 500 years ago when Martin Luther, an obscure German friar, nailed to the door of the castle church in Wittenberg 95 theses (or debating points) criticising the Catholic Church's long-standing corruption and abuse of authority.

Although evidence suggests that Luther instead delivered his theses to the local archbishop; he nonetheless expected an immediate response and an invitation to debate. When none was forthcoming, a copy was leaked to a local printer which then, according to Peter Stanford's new biography of Luther, "went viral...winging its way across Germany in pamphlets, woodcuts and even songs." Luther's 95 theses touched a raw nerve and engulfed Europe in war, producing a deep chasm within the Catholic Church which only now is being bridged.

Today 500 years later the economics profession is in crisis. Witness the myriad books deeply critical of its subject and pedagogy. Witness students petitioning and protesting, criticising proselytisation that passes for education. Witness the global, student-led movement to rethink the very core of economics. Witness the chasm splintering economics into neoclassical, institutional, green, Austrian, Marxist, Post-Keynesian, feminist, and neoclassical economics, each with its own culture and impenetrable walls.

Instead of listening and debating (never mind responding), deep-seated problems are denied, edges are tweaked, the veneer improves, change is miniscule, while economics and economics education continues largely as before. The public suffers, and the beat goes on.

The problems of our generation are formidable ranging from climate change to increasing inequality. The public needs an effective, crisis-free, fully-functionally economics to tackle our problems. We demand a reconceptualised economics that looks to the future for inspiration; an economics that includes rather than excludes, that denies there is only one truth, that encourages and welcomes diversity.

In the spirit of Martin Luther, our 95 theses document today's crisis in economics. Although our subjects differ, we share Luther's passionate zeal for reform, and issue a similar clarion call for immediate dialogue and reform. No more denial, prevarication, or justification that significant progress has been made. It hasn't. We expect a full response and debate; the public deserves no less.

Statement of the problem

[Note: I use the term ‘we’ to underscore widespread (albeit not universal) consensus. To reduce cluttering I have deleted references, and only when absolutely necessary cite authors of quoted text. A full version contains complete references and is available upon request].

- 1 Alfred Marshall wrote in his best-selling *Principles of Economics* (1890) that “economic conditions are constantly changing, and each generation looks at its own problems in its own way.”
- 2 Our generation is beset with global warming, rising sea levels, species depletion, increasing inequality ,etc. Such imminence calls for understanding, knowledge, and the ability to conceptualise our problems holistically, and to communicate and work with others to develop solutions.
- 3 We know of no other discipline with an array of books so critical of its subject matter and pedagogy. Just a sampling: *A Guide to What’s Wrong with Economics* (2004); *The Economics Anti-Textbook: A Critical Thinker’s Guide to Microeconomics* (2010); *Debunking Economics* (2011); *What Every Economics Student Needs to Know and Doesn’t Get in the Usual Principles Text* (2014); *The Econocracy: The Perils of Leaving Economics to the Experts* (2017); *Doughnut Economics* (2017). The list keeps growing.
- 4 The authors of the influential *The Econocracy* (2017) lamented, “Having graduated we are all keenly aware that our economics education has not equipped us with the knowledge or skills to justify any authority we have been given. In fact, we were so frustrated with how little our education was helping us understand the world that midway through our second year at university we began a campaign to reform economics education.”
- 5 Indeed, economics is unable to predict financial crises, map out a sustainable economy, or adequately educate our students. Economics textbooks “often present hypotheses and policy prescriptions with surprisingly little or no supporting evidence, or (worse) ignoring inconvenient contrary evidence.”
- 6 A chasm exists in economics, splintering the discipline into “separate tribes, each with its own culture”, with little or no inter-communication and much disparagement. Instead of economics, we have neoclassical, institutional, green, Austrian, Marxist, Post-Keynesian, feminist, and neoclassical economics. The public suffers.
- 7 The public demands a working, functional economics, acutely attuned to understanding the 21st century.
- 8 The problems of our generation are not institutional, Marxist, green, or neoclassical; nor are they economic. They are complex and multi-dimensional, deserving the active attention and full cooperation of all economists.
- 9 Economics must return to its multi-disciplinary roots in order to solve our problems. It must become open, tolerant, pluralist and engaged with today’s economy.

Economics: a contested definition

- 10 The definition of economics is contested. Neoclassical economists define economics as the study of the allocation of scarce resources amongst unlimited wants. While this describes one possible methodological perspective, it is generic, bland, ideological (why assume unlimited wants?) and highly disconnected to the real-world. It also assumes that there is only one truth, one way of thinking, ignoring the counterclaims of its many tribes.
- 11 This means/end definition is quaint and idyllic evoking an earlier age unconcerned with CO₂ emissions, depleted fisheries, water shortages, climate change, etc. It is at odds with the 21st century focus on sustainability; it is at odds with persistent poverty and increasing inequality.
- 12 We prefer defining economics as: “Economics is about provisioning, how societies organize themselves to sustain life and enhance its quality.”
- 13 Julie Nelson explains, “such a definition is much broader...and [is] familiar to many economists from institutionalist and socio-economic backgrounds, and is wide enough to encompass concerns from other perspectives as well.” Perhaps this common definition can potentially provide a starting point for dialogue amongst the ‘different tribes’ of economics?
- 14 How a discipline defines itself shapes its subject matter, its objectives and the interests of its researchers. Not only is the provisioning definition broad-based, appealing to more ‘tribes’, but it more accurately describes what we do, hinting at the passion that motivated us to become economists.
- 15 Thanks to changing technology, more goods are produced with a near-zero marginal cost. What does this imply for a scarcity-based means/end definition? Why should we artificially constrict the focus of economics to scarcity when the economics of the commons and the economics of abundance are becoming increasingly important?
- 16 Scarcity is artificially contrived and should not be the basis of the discipline of economics.
- 17 Yes, scarcity exists; and we should assiduously investigate its occurrence instead of gratuitously assuming its ubiquity. A good starting point is understanding the role of institutions – the basic rules and procedures that make our life easier. Institutions affect our ability to provision, but at the same time, we can affect institutions. All economic systems are built on institutions, constructed by human beings in historical and cultural settings. We can change institutions and economic systems if they don’t help us provision; nothing is engraved in stone.
- 18 A just (i.e., fair, equitable) economic system adequately provisions for all; an unjust system fails to do so. Justice must become a central theme of economics and a concern of all economists.
- 19 Justice is a complex and multi-faceted word (much like freedom and democracy) meaning different things to different people. Amartya Sen suggests focusing on the lack of justice, which is easier to recognise, and better comports with our provisioning definition.

- 20 How to redress 'redressable injustice' should be a clarion call for economists.
- 21 Joan Robinson (who should have been awarded the Nobel Prize), wrote that economists must step out from the comfortable excuse of positive economics and speak out 'on the side of humanity'.
- 22 John M. Keynes argued that neoclassical economics itself obscures sordid poverty and inures the economist to common suffering.
- 23 In the 19th century economics was known as political economy, reflecting the active immersion of its leading scholars in the political issues of the day. But as neoclassical economics developed during the late 19th century, it eschewed political issues, while 'sweeping under the rug' the issue of power and equitable distribution in favour of the mechanical determination of prices (i.e., supply and demand).
- 24 We prefer the term political economy: "one cannot understand contemporary societies very well unless politics, economics, psychology, and the other social science disciplines are all brought together to study the complexities of modern life. Another way of describing the political economy approach, is to say that it is interdisciplinary."
- 25 Adam Smith, founder of economics, wrote in *The Wealth of Nations* (1776) that a nation is only as wealthy as its least well-off member. A nation cannot call itself wealthy with some (or any) of its members living in poverty.
- 26 How best to develop individual capabilities given our ecological surroundings must become the focal point of economics. Is the individual able to provision? Is the individual capable of provisioning?
- 27 What is wealth? What is poverty? Is wealth tantamount to an individual reaching his/her full potential?
- 28 Work is central to human development; developing good jobs for all should be a central objective of any economic system – persistent unemployment should not be tolerated. Understanding Eastern religions could help economists understand the important of work for individual development and for reaching our potential.
- 29 Why can't we provide jobs for all? Why can't we provide adequate income for all? Given changing technology and increased automation, a basic incomes policy merits discussion.
- 30 Joan Robinson's book *What are the Questions* (1981) should guide contemporary thinking about economics. Questions matter much more than answers: We can't get the right answers without asking the right questions.

Economics must become pluralist

- 31 A persistent criticism among student groups is that economics is not pluralist. In 2001 French students, for example, petitioned their professors: "We want a pluralism of approaches, adapted to the complexity of the objects and to the uncertainty surrounding most of the big questions in economics (unemployment,

inequalities, the place of financial markets, the advantages and disadvantages of free-trade, globalization, economic development, etc.”

- 32 And the student-led organisation Rethinking Economics (2014) argued, “We need to recognize the plurality within economics. In most courses ‘economics’ is shorthand for ‘neoclassical economics’. There is no recognition of the variety of schools of thought within economics, across history or across the world. Academic integrity requires that alternative economic theories be introduced to students, alongside those currently taught. Economic questions cannot necessarily be answered adequately from a single theoretical standpoint, or solely from a mathematical approach.”
- 33 Pluralism is a complex, multi-faceted term, much like freedom, democracy, and sustainability. It exists on many levels: understanding our world; how we construct knowledge; conducting research; how and what we teach, etc.
- 34 A simple yet workable definition for pluralism is: the ability to listen and dialogue with others, especially with those whom we disagree.
- 35 Pluralism doesn’t mean that we must agree with everyone, only that we listen and understand. (Why is this so elusively difficult?) It is OK to disagree and dissent should be encouraged.
- 36 Does this mean that anything goes? That all views are legitimate? While these important questions get to the essence of science, we must guard against an arbiter (or faction) deciding what is and what is not legitimate. The arbiter/faction might squash and extirpate the new, the untried, the radically different. We need all views. This is a problem with today’s economics and the main reason for its chasm: dissenting views are delegitimised by the mainstream; new views are shunted before they are broached.
- 37 The lack of pluralism isn’t endemic to economics. In 1620 Frances Bacon wrote, “Readings and men’s (sic) writings are confined and imprisoned in the writings of certain authors; anyone who disagrees with them is instantly attacked as a troublemaker and revolutionary.” And Thomas Kuhn wrote about scientists practicing normal science rejecting new views, especially those that impugn their life work. While this might typify normal science, we don’t have to accept it. Post-normal science impugns this Kuhnian belief as unacceptable.
- 38 Pluralism is necessary in economics in order to legitimise its separate tribes.
- 39 No one discipline can claim all the answers, nor can one economic viewpoint (neoclassical) claim a monopoly on the truth. (And even if one view possessed the right answers, how can it be implemented without the active cooperation of politics, sociology, anthropology, etc.?)
- 40 Elinor Ostrom urged active cooperation between and among the social sciences, engaging in fieldwork to learn about the “immense diversity of situations in which humans interact.”
- 41 Margorzata Dereniowska, a Polish philosopher, argues that pluralism is a *modus operandi*, a method of operating.

- 42 Pluralism educates. Monism, its antithesis, proselytises.
- 43 Pluralism instils empathy, dialogue, humility, humbleness, and a visceral awareness of what we don't know. Monism, by filtering different (and challenging) views, prevents one from knowing which view might be better in certain situations. Monism gives a seductively false and misleading sense of security. Monism is antithetical to pluralism and antithetical to education.
- 44 In order to solve our generation's many problems, economics must become pluralist, recognising the richness and diversity of the human experience, welcoming diversity and embracing dissent. All views within economics must be treated with dignity and respect.

The problem is how we educate economists

- 45 Education is our most important function as human beings: "it is an investment in ourselves, future generations, and the planet." It is "the most vital of all resources." But as evidenced by the proliferation of recent books, economics has short-changed students and failed this most important function.
- 46. Edward Fullbrook wrote shortly after the recent financial crisis, "If universities continued to use for nuclear engineering a textbook by an engineer, who had headed a team managing a nuclear power plant that without external causes exploded creating huge devastation, there would be a public outcry." And Steve Keen notes that students at the beginning of the 21st century are receiving much the same instruction about how firms set prices as did their counterparts at the end of the 19th century.
- 47 The student-led groups (and the movement to rethink economics) urges writing textbooks that "look at real-world economic problems from different points of view, that do not make false claims about economic knowledge...and seek not to indoctrinate, but to educate."
- 48 To teach pluralism is to teach how to listen, how to dialogue, and how to work with others with opposing views. These are the needed skills of the 21st century, but unfortunately are in short supply.
- 49 Economists have become elitist and disconnected from ordinary citizens. *The Econocracy* argues that economists do not deserve the power entrusted to them, that they have become too disconnected from the concerns of ordinary citizens. They suggest establishing citizen councils to help bridge this widening gap.
- 50 Economics must become more inductive and less deductive. One is hard-pressed to find in any economics textbook empirical evidence about how real-world firms behave and how they operate. Instead we find fabricated data based on 19th century prescripts of how firms should behave. If we presume to teach about modern capitalism, we should begin with real-world data. (That this is even mentioned underscores how dysfunctional economics has become.)

- 51 Mainstream economics insists on proselytising the industry structures of perfect competition, monopoly, oligopoly, and monopolistic competition, as inviolable. (This pedagogy has little changed since the 1960s.) But technology changes how firms operate and how industries are structured. Why equip students with a 20th century map to study 21st century problems?
- 52 Perfect competition should be jettisoned from the curriculum. Rather than help explain how today's economy works, perfect competition ideologically rationalises, with its utopian ideal in the early 19th century.
- 53 Platform capitalism is restructuring the role of the firm and the definition of industry. But mainstream economics is silent on this issue. The theory of the firm has ossified; its core beliefs protected and enshrined beyond empirical assail.
- 54 Neoclassical economics has degenerated into "a branch of applied mathematics, where the aim is not to explain real processes and outcomes in the economic world." It is "a technical and rarefied discipline, of questionable relevance and limited practical use."
- 55 Just as the means/end definition is quaint and ill-fitted in an age of sustainability, the positive/normative distinction (i.e., we can effectively distinguish and separate 'what is' from 'what should be') is a relic of 19th century thinking, but still taught as gospel to undergraduates.
- 56 We have values. Period. Our values influence who we are, our vision and our ideology. Period. Let's welcome values, ideology, passion and justice, and put them on the table. Period.
- 57 Economic education should embrace art, especially Cubism which impugned Western art's long-cherished 'privileged position', demonstrating that multiple perspectives are necessary to make sense of reality.
- 58 Elinor Ostrom warned that without inductive field work, theory can develop "a life of its own." Sadly, this has already happened.
- 59 We believe that the main problem with economics, why economics is disconnected, why critical (and disparaging) books continue to be written, why students continue to protest, is the failure of economics education. There is no quick fix, but paraphrasing C.P. Snow, "there is no excuse for letting another generation be as vastly ignorant."
- 60 Economics should embrace complexity at all levels; and economics education should introduce complexity right off the bat.
- 61 If economics is to actively help us provision, economists must interact with consumers, business owners, and workers. Beginning level economics courses should be team-taught with anthropologists and sociologists. And every course should have a lab.

Our world is changing and so should economics

- 62 Steve Keen wrote that if late 19th century scientists were to return today they would be lost in their discipline, not recognising all the changes, save an economist.
- 63 Capitalism's success has significantly increased productivity, while reducing the marginal cost of producing many goods to near zero; a situation which will intensify in the near future. The combination of 3D printing and automation is changing the very concepts of the firm, consumer, industry and the meaning of work. Yet neoclassical economics plugs along, wedded to 20th century conceptualisations and definitions.
- 64 Renewable energy produced at near-zero marginal cost is a distinct possibility, but neoclassical economics is largely silent on how this will happen.
- 65 While capitalism has a rich history of reinventing itself, the drive toward sustainability, the increased importance of the commons, near-zero marginal cost production, suggest either reinventing capitalism from top to bottom, or designing a new political economic system to meet these challenges.
- 66 Economics fails to elucidate the big picture. What system is most conducive to provisioning?
- 67 Economics should not be wedded to a specific system, nor a particular variant of one economic system, but should stand at arm's length, suggesting effective solutions; economics should be open to new systems as technological and ecological conditions change.
- 68 The commons is becoming more important vis-à-vis the market, resulting in greater expectations for sharing (its *modus operandi*) rather than exchange (the *modus operandi* for markets). Jeremy Rifkin wrote that "Markets are beginning to give way to networks, ownership is becoming less important than access, the pursuit of self-interest is being tempered by the pull of collaborative interests, and the traditional dream of rags to riches is being supplanted by a new dream of a sustainable quality of life."
- 69 A central concern for economics should be how to live and produce in the commons, where goods are shared and access is more important than ownership.
- 70 While capitalism changes, poverty persists. In 1879 Henry George wrote of wealth amongst poverty, "material progress does not merely fail to relieve poverty – it actually produces it." Poverty amongst plenty should be a central focus of a reconceptualised economics.
- 71 Instead of accepting a theory as sacrosanct (e.g., David Ricardo's Theory of Comparative Advantage) we should analyse its original objective asking whether it is appropriate for the changing conditions of the 21st century. To do otherwise claims ignorance of its original objectives, or assumes that underlying conditions have not changed. Neither is acceptable.
- 72 The metrics GDP, unemployment rate, inflation rate, etc. were constructed in an earlier age, for an economic system very different – one that produced more goods

than services with little concern for sustainability. We need a systemic overhaul with new metrics for our rapidly changing, sustainability-oriented economy.

- 73 Neoclassical economics is heavily influenced by 19th century physics, whose metaphors immerse us in a binary, linear world of predictable cause and effect. 20th century physics (relativity and particle physics) showed that uncertainty is pervasive; perspective differs, and that matter is interconnected. Economics could be vastly improved (especially neoclassical) by incorporating some of its elements.
- 74 If neoclassical economics had followed the path of 20th century physics, economics would be very different today, eschewing equilibrium and becoming much more humble. Economics and economic education would be pluralist.
- 75 Quantum physics teaches us that opposites aren't really opposites (also central to Eastern religions), but are quite often complimentary. A wave, for example, is not always a wave, but is sometimes a particle, and often both. Rather than a binary world where everything is black and white, there is a lot of ambiguity and uncertainty. This should be recognised and encouraged. While competition is good, for example, so is cooperation; neither should be viewed as mutually exclusive opposites.
- 76 Neoclassical economics separates capitalism from socialism. The reality, as Elinor Ostrom has demonstrated, is that for most of human history neither has operated, and that in many places we find more socially embedded systems.
- 77 Elinor Ostrom's book, *Governing the Commons* exemplifies good economics: engaged in field research, testing theories, discarding those that do not work; diligently and conscientiously advancing new knowledge.

Economics must become sustainable

- 78 Approximately 280,000 people are born every day. How can we provision for all? How can economics help if it gratuitously assumes unlimited wants?
- 79 A central focus of economics should be the Earth's carrying capacity and its relationship with our increasing population.
- 80 In 2015 the United Nations issued its 17 Sustainable Development Goals. If these goals present a viable recipe then we need a new economics, one that is pluralist, emphasising justice and sustainability.
- 81 If we are to stop climate change (or at least attenuate its most severe effects), we need a revamped and reconceptualised economics; and we need to educate our economists so they can work with other social scientists.
- 82 As economic systems evolve, so must our thinking. Neoclassical economics developed during an era of an intact ozone layer, full forests, un-depleted fisheries. It is disingenuous to assert that pollution and other harmful environmental effects are an externality to be solved ex-post.

- 83 The million-dollar question is of course how to transit from current unsustainability to sustainability without unfairly discriminating or punishing the world's poor.
- 84 How to do this crucially depends how we reconceptualise the theory of consumption and investment so that all can benefit. Green economists as well as institutionalists have written extensively on this, and neoclassical economists need to actively dialogue. We need the active cooperation of all economists and all social scientists.

Moving forward

- 85 We need big thinkers and educated citizens – not just technicians trained in narrow competencies or proselytised to think a certain way, but well-educated and well-rounded citizens.
- 86 The contributions of women should be welcomed, recognised and rewarded, from entry positions in universities, to journal editors, to Nobel Prizes. It is inexcusable that only one woman has won the Nobel in economics.
- 87 Diane Coyle writes of a male-dominated economics that fails half the population: “to an extent unimaginable in many other fields, economics seminars are hostile occasions for point-scoring and aggressive challenge. Junior women hardly say a word. Papers written by women are routinely held to higher standards and take longer to get published...peer review rewards peers, and they are mainly men.” This is a serious problem, and as Coyle notes is “deeply embedded in the discipline’s culture and norms.” This deserves immediate attention.
- 88 The male-dominated economics profession is also discriminatory and hostile towards gay and transgender persons. The formation of the American Economic Association’s LGBTQ network is a welcome step forward.
- 89 Economics must rejoice in its political economy past, while enthusiastically embracing the challenges of the future. If this means scrapping theories because they no longer work, or because underlying conditions have changed, so be it – this is how a discipline progresses.
- 90 Economics education needs to be radically reconceptualised, recognising the diversity of human thought, and the complexity of human and ecological existence. It must welcome and actively cooperate with other sciences. We must educate our students, not proselytise them. The traditional curriculum of introductory, micro and macro theory, statistics/econometrics, and upper division, is too narrow, reinforcing insularity and instilling a false sense of security that only the economic way of thinking is needed.
- 91 Active dialogue is very crucial to reconceptualising economics. Sustainability, justice, pluralism, and democracy are complex, multi-faceted words, meaning different things to different people. We need wide-spread dialogue to effectuate meaning for these powerful words.

- 92 Economics should not be an exclusive jurisdiction of western developed nations. If economics is to help solve our generation's interconnected problems it needs to innovatively include voices from east and west, north and south. We must include all, especially the disenfranchised.
- 93 We should listen to the widespread student complaints; students are at the forefront of economics education and are our best hope for the future. Too many critical books have either been written by students or for them; none have been adequately and fully answered. We should actively debate every point made; otherwise expect more complaints and more critical books to be written.
- 94 We must effectively design an economic system to provision for all. Economics needs to welcome and embrace its myriad different ideologies. The public deserves no less.
- 95 William Lloyd Garrison, publisher and founder of the USA anti-slavery newspaper, *The Liberator*, launched his paper in 1831 vowing to continue publishing until slavery was abolished. He kept his word. Few people matched his relentless passion to abolish slavery. (In a way the public today is enslaved by an anti-pluralist, out of date and dysfunctional economics.) We are all affected by economic policies; and we are all, as Keynes wrote, enslaved to a defunct economist. We vow to continue until economics has become pluralist at all levels; when a green economist can respectfully dialogue with a neoclassical; when economics can offer 21st century advice to solve 21st century problems; when books documenting the woeful shortcomings of the profession are no longer written; when students thank the economics profession for giving them the knowledge to conceptualise and solve today's problems.

Conclusions

We hope these 95 theses can help bridge the chasm in economics, reconceptualise it and make it more capable and effective in solving our generation's problems. We welcome dialogue and discussion. And in the indefatigable spirit of William Lloyd Garrison we will not rest until our concerns are met: "We will be heard."