Development Economics

Dyrehaugen Web Notebook

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1

Economics

Economics is a broad issue. Here we look at the economics of resources, sustainability and development.

Economics is too important to leave to the economists

2

Resource Economics

2.1 Sustainability

2.1.1 VML - Voluntary Market Led Sustainability

Austin

Though our roughly 6-decade response to global environmental challenges – since Rachel Carson and others alerted us in the 1960s – is a long time for an individual human being, from the perspective of the complex system of humankind, all our efforts to date constitute merely the first adaptive responses we have been able to implement in short order. The form of this emergency response has necessarily been constrained by the patterns of collective behaviour we had arrived at before recognizing our new context, for reasons that have nothing to do with the new context. It is a crisis precisely because it has not found us prepared – behaviourally, organizationally, even cognitively. Predominantly a **Voluntary Market-led (VML) response** What has been the nature of this first response? Of course, it has been multi-faceted, but as befits our market-centric modern society, it has come to be dominated by voluntary market-led strategies under various banners – ethical investing, socially responsible investing (SRI), corporate social responsibility (CSR), environmental, social and governance (ESG) initiatives, impact investing, divestment campaigns, reporting and disclosure frameworks, corporate engagement efforts, stakeholder advocacy and more.

VML is most easily defined by what it opposes. 'Voluntary' denies, or at least strongly opposes, the need for enforceable regulations and policies to achieve sustainability goals. 'Market-led', implicitly upholds the idea that the key market dynamics of profit maximization and economic growth are not only not impediments to sustainability but critical drivers of the solution.

VML emerged as our predominant adaptive strategy from the mid- 1990s, not

out of any confidence that it would be a sufficient response, but because it was the only scalable response established Western socio-economic norms could tolerate at that time.

In short, a major pattern of the last 50 years is that a long-gestating neoliberalism captured a fledgling environmentalism and VML's 'win-win' proposition was about all the environmentalism we could muster. The question today is whether this VML adaptive response can generate 'enough sustainability before it is too late'.

While the VML meta-strategy has certainly delivered gains that would not otherwise have occurred – in accelerated green innovations, widespread awareness, and incremental behaviour change – after 25 years, it is becoming apparent VML cannot generate 'enough sustainability in time', which is increasingly the only interpretation of sustainability that matters. Basically, our first response strategy does not seem to be working.

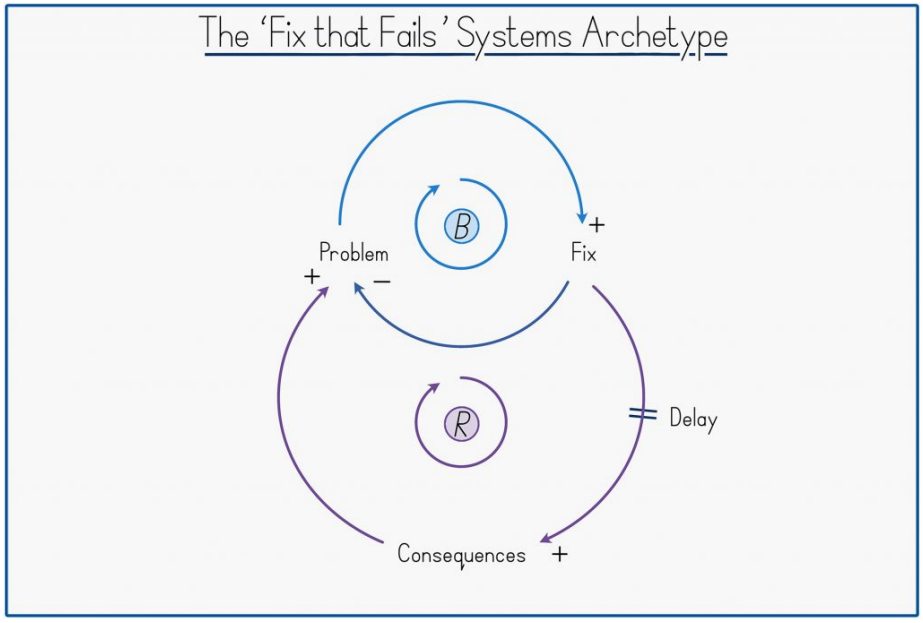


Figure: The 'Fix that Fails' Archetype. A top loop 'balances' an initial problem. ('The problem leads to more of a fix that leads to less of the problem'). However, it is offset by a second, delayed, loop that only reinforces the initial problem ('The fix leads to consequences that lead to more of the problem').

If VML is the 'first response' of a complex system to an abrupt new awareness of context, certain concepts developed to understand complex systems can help us identify the type and extent of response VML has been and what its limitations now point to.

What I will call 'systems thinking' – sometimes also 'complexity science' or the

study of 'complex adaptive systems' – is now inexorably and beneficially on the rise as a counterpoint to the reductionism that has underpinned Western thinking for the last 350 years.

Systems thinking invites two high-level conclusions about the VML strategy – helpfully both alliterative. First, the tool of Causal Loop Diagrams suggests that VML is a 'fix that fails' – an ubiquitous pattern in which genuine 'fix' actions are offset or even completely overturned by unintended 'fail' consequences.

More encouragingly, reflecting on the layered adaptive architecture of complex systems reveals that VML has been a possibly inevitable, not unhelpful 'defence at first depth'. Complex systems adapt by working through 'fixes that fail' until they land upon a deeper 'fix that works'.

It is within our capabilities to adapt in this way, but it implies we must graduate quickly from the initial shallow response of VML to deeper responses of policy and culture change that now offer the only realistic means of averting climate and ecological crisis in time. Because the nature of these deeper changes conflicts with certain premises of the VML strategy – particularly VML's compromised ability to advocate for economic growth-reducing demand-side measures – initiating such changes requires the conscious giving up of certain beliefs and claims made for VML. As such, among the individuals who can most powerfully and credibly trigger the transition to deeper changes are precisely those individuals who have historically promoted VML strategies, whose public 'change of mind' might now constitute a disproportionately powerful signal of the limitations of our first response.

Missing the physics for the finance. Plainer still, one can look through the economics to the underlying physical reality. A sustainability discourse conducted in business and economics terms continues to miss the physics for the finance. Our climate and biodiversity challenges are fundamentally driven by human transformation of matter and energy at a scale and pace that exceeds Nature's capacity to absorb. In response, VML aims to transform the world more sustainably, but the building of a clean economy has simply become the new banner by which we accelerate our transformation of the physical world. We frame the build-out of a clean economy as 'greener', but the Earth just registers 'yet more' transformation of matter and energy overwhelming natural processes. VML denies that a large part of our sustainability response requires establishing a slower and gentler interaction with Nature to fall back into balance with its pace. Less, not more.

Layered architecture of complex systems A universal feature of complex systems is that they emerge or self-organize as hierarchical or layered systems comprised of fast-responding surface adaptive capabilities underpinned by slower-moving capabilities. This results in complex systems responding to adaptive challenges in a layered or cascade fashion.

Layered behavioural architecture seems to be Evolution's elegant solution for handling the innate challenge facing all living things – from simple organisms to

complex societies – namely the need for some *rigidity* to uphold and perpetuate existing beneficial behaviours and yet also some *flexibility* to respond to new circumstances. Both are beneficial but must be in tension. A complex system in adaptive crisis must *find a 'fix that works' before it is too late.*

> At the even lower level of 'culture', the predominant Western culture remains firmly anchored around consumerism and has most recently taken to celebrating people playing spaceship.

With our heavy dependency on VML strategies to address the sustainability crisis, we are effectively defending at first depth only. Governance and culture are certainly more entrenched, slower moving forces, but it is when these gears begin to turn that society really starts to shift. As Brand puts it: 'Fast gets all our attention, but slow has all the power.' As the profundity of our sustainability crisis sinks in – 'sinks in'– it is becoming clear that we must solve our sustainability challenge at a deeper level than initially thought. In a sense the challenge of our 'race against time' adaptive crisis is to now shift deeper and more powerful mechanisms of social change faster than perhaps ever before.

To accelerate deeper change requires an emergency review of the – entirely pre-Anthropocenic – thinking implicit in our governance structures and cultural beliefs, how they got that way and how they might be different. It is layers again, not of our institutions, but of our prior cognition and reasoning that first shaped those institutions and is now reinforced by them.

> Western societies have iterated towards a market primacy of self-organization over the last two centuries, in the belief that it was the best means by which to advance human welfare. However, market primacy of human self-coordination is itself a fix that fails because the positive benefits of market-driven economic growth and innovation are undermined by lagging, unintended consequences not registered by the market system – 'externalities' – of a scale far greater than most economists and politicians have historically been willing to recognize, and than government and philanthropic efforts currently absorb.
>
> A study by Robert Costanza and colleagues estimated the monetary value of the 'services' provided free by the Earth's ecosystem at $125 trillion in 2011, nearly twice the value of global GDP (gross domestic product). 54 Just from this one assessment of some ecosystem benefits, much more 'value' is unknown to the market than known. The same study estimated that annual ecosystem services had been depleted by $20 trillion since 1997, during which time conventionally measured real GDP increased by $29 trillion, for a net gain of $9 trillion While conventional global GDP grew by 3.5 percent per annum during the period, a fuller measure of 'total wealth creation' would have grown by only 0.3 percent to 1.7 percent per year – that is, 'growth' would have been at most half what we registered, at

worst virtually non-existent.

What we are effectively doing is counting the positive monetary growth of the market system's 'fix' loop, while ignoring the unmonetized costs of the 'fail' loop.

Scale of externalities not yet accepted Possibly the key driver of our sustainability crisis is that the dominant Western culture has not achieved sustained acceptance – distinct from mere theoretical admission – of the scale of market externalities and what that must imply for claims made about the superiority of market-led coordination.

'We need more data' seems to be the universal belief. No, we don't. We have more than enough data. We need acceptance, which is qualitatively different to admission, such that we cannot simply disclose more and more data and expect to arrive at acceptance.

he failure of economics to cultivate the sustained acceptance of externalities is increasingly becoming the most pertinent fact about the whole discipline. Not only did economics – the 'science of markets' – not encourage acceptance of externalities, but it also made strenuous effort to downplay or even trivialize them.

The hope of early economists, subsequently bolstered by ideals of complete market theory, was that market systems would be self-regulating, removing or minimising the need for government regulation. And, certainly, an economy contains many balancing processes. If the demand for bread increases, the price of bread will rise inducing more supply so bringing the price back down again. The market contains a great many 'self-regulating' or rebalancing, loops. However, the market is not only self-regulating, but also susceptible to positive reinforcement loops that can become runaway problems. This was crystallized by Brian Arthur in 1990, when he identified that economic systems did not just exhibit 'diminishing returns' – or balancing loops – but also, quite commonly, 'increasing returns' – or reinforcing loops. Because neoliberalism has granted markets primacy, and because markets are vulnerable to large-scale runaway effects, neoliberalism is effectively a runaway feedback loop.

Many of our biggest problems - global debt accumulation, wealth inequality, climate change and biodiversity loss – all exhibit runaway, vicious spiral, dynamics seemingly beyond the powers of the market to rein in.

The erosion of the government's capacity to modulate market forces is itself the consequence of certain powerful reinforcing loops intrinsic to neoliberal logic.

In what might be called 'Friedman's Feedback Loop', corporations' 'social responsibility to maximize profits' has, over time, seen them spend large amounts of money lobbying government to change the rules to allow them to increase profits, providing them with more resources to lobby governments etc.... As this inexorable process of regulatory capture persists, a society progressively steers less by a sense of what is 'good' and more by what is 'profitable'.

Equally, in what might be called 'Reagan's Reinforcing Loop', if perception spreads that 'markets are the solution and government is the problem', human talent will slowly but surely be drawn towards the private sector and away from public service.

Our still extending – and so still incomplete – market system continues to annex new, previously uncommodified, realms, but in asymmetrical fashion. It opens new frontiers of profit but cordons off areas of potential cost.

The argument for market primacy is predicated on the power of price signals to achieve a more efficient allocation of goods and services than might be achieved by the cumbersome and coercive 'central planner', but in practice, this power of price signals can now only be extended to generate new profits, not new costs. And so, we are denying ourselves the use of the market system and its price signals to tackle possibly the most critical scarcity problems we have ever identified – limited atmospheric capacity for greenhouse gas emissions and limited capacity of ecosystems to absorb or tolerate our activities.

As such, one can turn the tables and ask: if we don't need prices for the greenhouse gas emissions driving runaway climate change, and we can instead rely on people voluntarily to take the steps consistent with those prices without them being implemented, why bother having prices for anything at all? Why not just assume that people will always voluntarily behave in ways that collectively advance human welfare?

Among the more effusive accolades made of the market system is that it is a form of 'intelligence'. And while there is something to this in the autonomous way the market system marshals goods, services and human time and effort, it can only be a partial intelligence because the market has no inkling of the non-commoditized and non-priced world.

A market-centric culture commits to follow where profit leads. Quite important, then, that either we calculate profit sustainably or we temper our market-centricity.

At a yet deeper level, one can trace the threads of today's market-acquiescing VML response to momentous cognitive developments of the 17 th century that shifted the Western world onto an entirely new cultural metaphor, which in turn paved the way for our excessive credulity in the power of markets, and our equating of market growth with moral improvement.

Just as scientists rarely waste time questioning long-established axioms of their discipline, so our shared myths or metaphors warrant little comment or reflection because, after all, the view from within a culture is that it is so obviously the way the world is and must be!

The essence of **reductionism** is that knowledge can best be acquired by breaking things down to pieces, learning how the pieces work and then 'adding back up' this knowledge to arrive at a greater comprehension of the whole. At the dawn of the Scientific Revolution, reductionism profoundly shaped our sense

of what science even was. A scientific method was then 'too hastily expanded' into other fields of investigation, including – fatefully – those concerned with living, complex things. This had the inadvertent consequence of rendering other methods of investigation more suitable for living things as 'non- scientific' – a pejorative designation that has catastrophically held back our comprehension of the living world, including ourselves, and encouraged a dismissiveness of non-Western insights and traditions.

However, the slowly-dawning meta-learning of the Scientific Revolution, spear-headed by the rise of systems thinking, is that as you move 'up' from inanimate objects to more complex systems – from 'dead' things to 'living' things – so reductionism gradually loses its power as an explanatory method, because the 'add back up' assumption breaks down. A core essence of systemism is that 'the whole is more than – or different to – the sum of the parts'. ence as we move up, we repeatedly encounter new levels of organization whose behaviours cannot be fully anticipated even with complete knowledge of the parts. These 'discontinuities' in emergent complex systems represent new levels of complexity, requiring understanding in their own right. Most important of all – though we cannot get into it here – is that at some point on this upward journey, we encounter something we have come to call a 'mind', capable of deriving meaning from the world and forming expectations about it, both critical, but subjective, capacities of living things brutally excised from the reductionist 'scientific' view of the world.

Essentially, the Western mind fell into a Valley of Reductionism, which was positively beneficial for physics and chemistry, but which has been a decidedly poor vantage point from which to understand living systems, including human society and global ecology.

The problem is not that Smith or Mandeville were wrong about the market's powers to transform greed into good, but that we came to believe that the market could fully capture and neutralize greed. But if markets are incomplete – if externalities exist – then markets do not capture and neutralize all the effects of greed, with the consequence that some greed slips through the market net and behaves like, well, plain old greed with excesses that destabilize the social and ecological system.

We have lost sight of the earlier, intuited, understanding that admonitions against greed constituted an important balancing loop in the complex system of human society.

Having given greed freer rein, we have gradually super-sized the impulse via the creation of **corporations** – 'corporate persons'.

We have a market system that does not 'add everything back up' and so cannot neutralize all greed, some of which spills out to drive inequality and destroy the ecosystem. At the same time, old cultural injunctions against greed have lost their potency. With incomplete markets and diminished capacity to appeal to individuals' moral sense, we find ourselves systemically and institutionally

induced to free ride upon each other and the social and ecological costs slowly accumulate in the background.

Though we have tended to perceive our ecological challenges as dating from the mid-20 th Century, I believe we will not be able to solve them until we recognize them as a lagged response to profound cultural shifts dating back to (at least) the 17 th Century. That does not imply that we need to roll back the clock and reinstate a pre-market society, only that we need to re-assess each link of the chain of thought that brought us to this point to see whether each link still makes sense in the abruptly different context of the Anthropocene.

If the context changes around a culture – as with the shock of the Anthropocene – a whole culture may end up displaying unconscious incompetency, by, say, polluting its own atmosphere, destroying its natural base, or creating social inequalities that slowly tear society apart.

World as Nested Complex System Seeing the world as an Emergent Nested Complex System brings three key features of living systems into view that enable us to understand how complex systems might adapt in a crisis.

1. Enabling constraints.

The innate structure of a complex system is the counterintuitive idea of 'enabling constraints' or 'constraints that deconstrain'. 'Constraints that deconstrain' expresses the idea that the pay-off to the constraint is a new, 'higher' space for the system to explore. The idea that a constraint is an enabler or, in reverse, that 'freedom comes from constraint' is counterintuitive but it pervades systems architecture and is everywhere once one starts to look for it. What pops out towards the top of the human stack of constraints are experiences we describe as 'free'. Individual freedom is dependent on the underlying enabling constraint of a Rule of Law and prior norms of justice. What gives us our freedom is everyone else constraining themselves to respect our rights. The misleadingly named 'free market' is entirely dependent on the enabling constraint of legally enforceable property rights. Constraints are the sine qua non for the self-organization of an emergent system. They are the scaffolding that brings complex life up out of the primordial soup.

2. Path dependency

Complex systems simply have not had enough time in the history of the Universe to try all possible solutions to land on the optimal path, so each complex system constitutes a highly path-dependent exploration of a vast 'possibility space'. One visualization of our sustainability crisis is that our human complex system has emerged in a context of an effectively limitless world with new frontiers always on hand, only to abruptly find itself in a finite and fragile world. Our emergent behaviour was not premised on this assumption and many 'old' ideas, habits, traditions and customs are no longer consistent with it, even though they are familiar and engrained. In some sense, the human 'stack' is now perceived to be in the wrong place relative to where it needs to be.

3. Two directions of adaptation

The emergence of each complex adaptive system represents an upward exploration within the space laid out by lower constraints, of which the base immoveable constraints are the laws of physics and upon which each successive layer establishes successive guardrails directing further upward movement. With the 'extended order' market system now on top of the human stack, we have found a mechanism that accelerates upward innovation via the spur of individual profit gain. New ideas are 'market-tested' to see what works and what does not. But the implication is that we are emerging upwards where profit directs. In contrast, there is a second type of learning which can be visualized as moving sideways, in an 'unlearning and relearning' process – or an 'uninstall and reinstall'. It might also be termed 'calibrative' learning because it amounts to recalibrating some existing parts of the established structure in the face of new context. In a sense, a complex system is continually correcting for imbalance. Such learning is effortful and costly, because it is not just the 'building on top' of upward learning but the intentional breaking of a trusty habit or once-cherished custom, which may have been justified at an earlier time but is now deemed wrong or unhelpful. Part of the cost of sideways learning is the difficult crystallization of a psychic loss, or that what we may have been doing for years or decades is now 'wrong', by today's contextual demands.

The innate tension between VML strategies and policy and cultural changes is that they represent two fundamentally different directions of adaptive response. Many of our green solutions represent yet more complexity, not just in the design of more high-tech components – from intricacies of new batteries to advanced materials – but in the more complicated supply chains and two-way, intermittency-handling electricity grids behind the scenes. All the 'clever' sensors, smart meters and real-time demand management programs add up to more complexity. Overwhelmingly, our VML strategies are upward movements.

The beneficial adaptive power that lower levels have over the higher levels is that they can reframe the space in which higher level complexity can take place. Hence, with its powers to set property rights, prices and regulations, government has the capacity to re-shape the entire 'market space'. The real adaptive value of this power is to constrain or abolish activities currently taking place at the higher level, which are now deemed to be a threat to the system. The cost of lower change is why our first-choice strategy is invariably to try and avoid it.

Policy and culture are prior to markets. The widespread inclination by VML practitioners to believe that any sustainability effort is better than none at all misses the tension that exists between VML and policy strategies. The natural enthusiasm for VML is in part a manifestation of the difficulty of calibrative learning. We are hoping that market-led innovation may obviate the need for wrenching uninstall and reinstall of property rights, laws and cultural norms, but it is looking less and less likely that will work. Yet, as a market-reaffirming movement, the execution of VML strategies is a daily reinforcement

of market primacy, which postpones deeper level policy and cultural changes whose beneficial adaptive power is precisely that they can choke off certain market activities we can no longer tolerate, in a way that market-conforming VML strategies cannot.

Where the market surpasses government is in its real-time facility to respond to ever- changing supply and demand signals. Markets are great at detail.

An emergent nested view of human society suggests that a better conception of government is as a 'central director' not as a 'central planner'. What a central director can do much more effectively than markets is work at a lower level of the system to redirect the innovation space in broad brush strokes by adjusting property rights.

Granting that a 'central director' – preferably of capable, elected human beings – can see broader and further into the future than partially-sighted markets, would be to hitch a complementary intelligence to the market intelligence we largely steer by today. Re-legitimizing government's role to establish new property rights – 'you know, government might be a key part of the solution' – should now be a central goal of any business with sustainability aspirations. It would effectively be to re-embed markets that have become, as Polanyi warned, too disembedded. It would be to make markets a tool of human culture, not human culture the by- product of markets.

It will dawn on people that an immediate consequence of limits-respecting markets must be a slowdown in 'growth' as we have been measuring it because they would reflect new limits we have not been considering.

In the real world of very incomplete markets, things of human value lie in two separate realms – the marketed domain and the non-marketed domain. Some of the growth of the marketed economy genuinely arises from human ingenuity and creativity unlocking better ideas and products from new combinations of inputs. This seems like 'good' growth, which ought to be celebrated and encouraged. However, other parts of monetized 'growth' arise from simply running down the stocks of what is valuable but in the non-marketed realm. This is the illusion of wealth creation based on registering the increase in marketed value, but not recording the decrease in unmarketed values. In contrast to growth from genuine ingenuity, this is 'wealth' conjured up by the Unmentionable Cost-Shifting Foot.

Our measured economic 'growth' overall combines in unknown proportions a **'creative growth'**, which we want to encourage, and a **'parasitic growth'**, which we do not.

I don't know if the term **'capitalism'** would survive the journey to this new cultural ground – or whether that would even be desirable. The specific problem with the term 'capitalism' is that its mere utterance upholds the entrenched view that markets have primacy over policy and culture, which just locks in the externality-denying capitalism we currently practice. Instead, the goal must be to have a market system that operates within a human cultural context that

recognizes market externalities are real and significant. This wouldn't be capitalism or socialism so much as a model of limits- respecting social coordination, for which I am not sure there is yet a name.

Returning to the surface, we arrive not at a 'sustainable economy' but at the *'economy of a sustainable culture'*. We will have effectively internalized that sustainability is a property of the whole, not of the parts.

Our current market primacy of self-coordination is rooted in thinking that is entirely pre-Anthropocenic.

The great hope of the VML strategy was that there would be *a business case for sustainability*. But, if sustainability must mean 'sustainable enough before it is too late', the meta-learning is that there is just not much of a business case to rely on. The business case is simply too weak and compromised a force to promote enough change fast enough. Instead, the *moral case for sustainability* is going to have to carry most of the load from here.

The shock of the Anthropocene profoundly challenges some of the core assumptions of the last 50 years – if not 300 years – of Western culture. The sustainability challenge is nothing less than our ability to transcend the neoliberal stage of development we had reached and prematurely thought might be the end of our quest for the ideal form of human self-organization. But, it has seen those that would defend today's capitalism merely defending an externality-denying capitalism we cannot afford.

To counter the usurpation of markets over culture, we now need a reverse usurpation whereby those who can see what has happened work to re-legitimize government and other cultural institutions to take the tough, moral decisions that are beyond the reach of corporations duty- and norm-bound to profit-maximize. The long-run goal for a sustainable business should be to help forge a sustainable culture.

Austin (2021) Market-led Sustainability is a 'Fix that Fails'… (pdf)

2.1.2 'Sustainable Growth' - An Oxymoron

Daly Memo

It is impossible for the world economy to grow it's way out of poverty and environmental degradation. Sustainable growth is impossible.

In its physical dimanesions the economy is an open sub-system of the Earth ecosystem which is finite, nongrowing and materially closed. As the economic sub-system grows it incorporates an even greater proportion of the total ecosystem into itself and must reach a limit at 100 percent, if not before. Therefore its growth is not sustainable.

The term "sustainable growth" when applied to the economy is a bad oxymoron - self-contradictory as prose, and unevocative as poetry.

Sustainable Development (qualitatively) OK Even 'green growth' is not sustainable.

In the past 200years we have developed a culture dependent on exponential growth for its economic stability.

To delude ourselves into believing that growth is still possible and desirable if only welabel it 'sustainable' or 'green' will just delay the inevitable transition andmake it more painful.

Precisely because quantitative and qualitative change are very different it is best to keep them separate and call them by different names. To *grow* means 'to increase in size by the addition of material through assimilation or accreation'. To *develop* means 'to expand or realize the potentialkities of; to bring gradually to a fuller, greater, or better state'. When somethings develops it gets different.

The concept of optimal scale of the aggreagte economy relative to the ecosystem is totally absent from current macroeconomics.

Microeconomics, which is almost entirely devoted to establishing the optimal scale of each micro level activity by equating costs and benefits at the margin, has neglected to inquire if there is not also an optimal scale for the aggreagte of all micro activities.

Nonrenewable resources should be depleted at a rate equal to the rate of creation of renewable substitutes. Projects based on exploitation of nonrenewable resources should be paired with projects that develop renowable substitutes. The net rents from the nonrenewable extraction should be separated into an income component and a capital liquidation component. The capital component would be invested each year in building up a renewable substitute. The separation is made such that by the time the nonrenowable is exhausted, the substitute renewable asset will have been build up by investment and natural growth to the point where its sustanable yield is equal to the income 'component. The income component will have thereby become perpetual, thus justifying the name 'income'æ. which is by definition the maximum available for consumption while maintaining capital intact.

Daly (1990) Sustainable Growth. An Impossibility Theorem (pdf)

2.2 Resource Extraction

Bardi on Hubbert

The well known "Hubbert curve" assumes that the production curve of a crude oil in a free market economy is "bell shaped" and symmetric. The model was first applied in the 1950s as a way of forecasting the production of crude oil in the US lower 48 states. Today, variants of the model are often used for describing the worldwide production of crude oil, which is supposed to reach a global production peak ("peak oil") and to decline afterwards. The model has

also been shown to be generally valid for mineral resources other than crude oil and also for slowly renewable biological resources such as whales. Despite its widespread use, Hubbert's modelis sometimes criticized for being arbitrary and its underlying assumptions are rarely examined. In the present work, we use a simple model to generate the bell shaped curve curve using the smallest possible number of assumptions, taking also into account the "Energy Return to Energy Invested" (EROI or EROEI) parameter. We show that this model can reproduce several historical cases, even for resources other than crude oil, and provide a useful tool for understanding the general mechanisms of resource exploitation and the future of energy production in the world's economy.

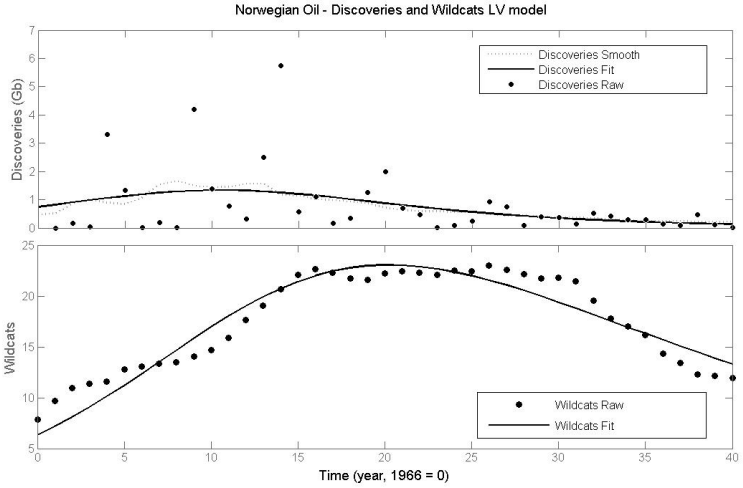


Figure: Fitting of the data for oil discovery in Norway and of the number of wildcats. In this case, the number of wildcats is proportional to the capital used by the oil industry in the effort of discovering the resource, oil wells.

Bardi (pdf)

2.3 Peak Theory

Insofar as economic growth is driven by oil consumption growth, post-peak societies must adapt. Hubbert believed:

> Our principal constraints are cultural. During the last two centuries we have known nothing but exponential growth and in parallel we have evolved what amounts to an exponential-growth culture, a culture so heavily dependent upon the continuance of exponential growth for its stability that it is incapable of reckoning with problems of non growth.

Wikipedia: Hubbert Peak Theory

Hubbert ( ) Exponentital Growth as Transient Phenomenon in Human History (pdf)

Fix

I'll close by returning to where I started: the Simon-Ehrlich wager. What's important about this wager is that it conforms to our expectations about prices. Ehrlich bet money on the idea that resource scarcity will cause prices to rise. It's an idea that most people find intuitive. Simon bet money on an equally intuitive idea — that resource abundance will cause prices to fall.

Looking at the bet, you can see that it's really about two distinct hypotheses. The first hypothesis is that we're exhausting our natural resources. The second hypothesis is that prices will rise in response. What's interesting is that most of the discussion about the Simon-Ehrlich wager conflates the two hypotheses. Because Ehrlich lost the bet, people assume that resource scarcity is not a problem. But that's faulty logic. What's also possible (and what all the evidence points towards), is that the price hypothesis is wrong. As we exhaust natural resources, their price does not explode. Instead, it collapses.

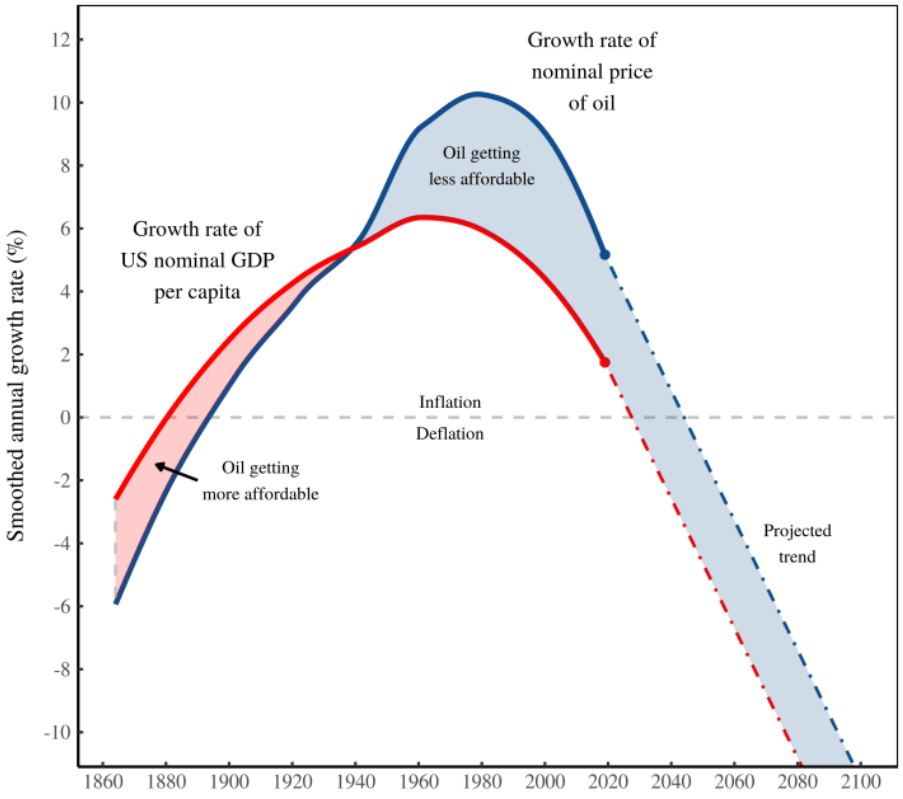


Figure: Oil purchasing power in the real world … and projected future. Solid lines represent real-world trends for the growth of US nominal GDP per capita and the nominal price of oil. I've smoothed the data to more clearly show the long-term trend. Dashed lines continue the recent trend into the future.

Even though Ehrlich lost his bet, his thinking remains widespread. Just look at peak-oil theory. Many peak-oil theorists think that as oil production declines, the price of oil will explode. But not everyone is convinced. The notable exception is the analyst Gail Tverberg. For years, Tverberg has been arguing that we're headed for lower oil prices. (Here's a thread of her writing on deflation.) But she doesn't think prices will fall because of resource abundance. She's a Malthusian much like Paul Ehrlich. Instead, Tverberg thinks we're headed for a world where oil is scarce yet cheap.

To many people, such a future makes little sense. But that's because we can't imagine a world in which incomes collapse. But Tverberg can. And so I propose a hypothetical bet for the future: Ehrlich vs. Tverberg. Both scientists assume that oil will get more scarce. But in the Ehrlich scenario, oil prices explode. In the Tverberg scenario, oil prices collapse.

I once thought that the Ehrlich scenario was all but guaranteed. But today, my money's on Tverberg. In the future, oil will be scarce and unaffordable. But I think it will also be cheap.

Fix (2021) Scarce but Cheap and less affordable

2.4 Energy Transition

Durand

> A regulatory, or market rational, state concerns itself with the form and procedures – the rules, if you will – of economic competition, but it doesn't concern itself with substantive matters […] The developmental state, or plan- rational state, by contrast, has as its dominant feature precisely the setting of such substantive social and economic goals

When one considers the economic challenges of restructuring economies to keep carbon emissions in line with the stabilization of the climate, this discussion acquires a new framing. Effectiveness must take precedence over efficiency in reducing emissions. That means abandoning the fetish of the price mechanism in order to plan how the remaining dirty resources will be used in the service of clean infrastructure. Such planning must have international reach, since the greatest opportunities for energy-supply decarbonation are located in the Global South. Moreover, as transformation on the supply side will not be enough, demand-side transformations will also be essential to stay within planetary boundaries. Energy requirements for providing decent living standards to the global population can be drastically reduced, but in addition to the use of

the most efficient available technologies, this implies a radical transformation of consumption patterns, including political procedures to prioritize between competing consumption claims.

Durand (2021) Energy Dilemma (NLR) (pdf)

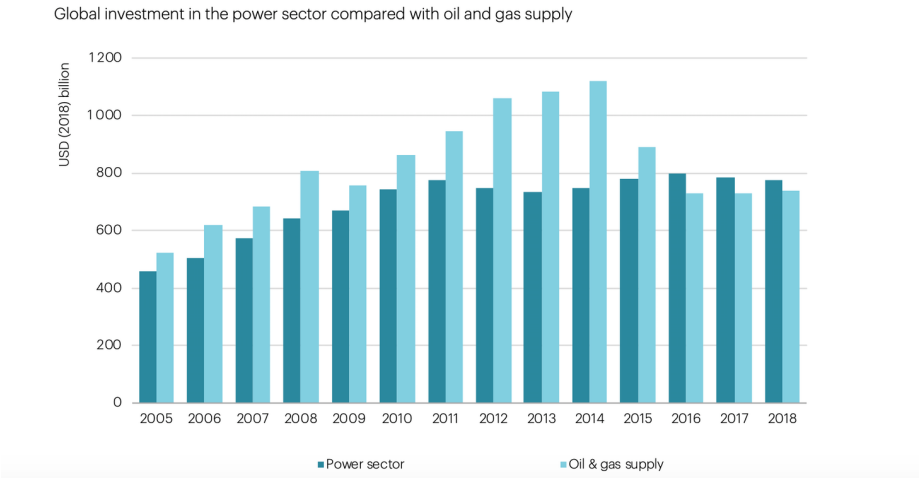
Tooze on Durand

As an account of the 2021 energy crisis it is fundamentally misleading. It attributes far too much influence to climate policy and mistakes the basic dynamics of investment in the sector.

Rather than the political trajectory of climate policy, the starting point for an analysis of developments in the energy sector in recent years should be the energy market price shock of the summer of 2014, when, between the summer of 2014 and 2016, an aggregate index of energy prices fell by two thirds.

It is this collapse of global energy prices that has dictated both the patterns of investment in the global energy industry, and the balance between fuel types in electricity generation

After the 2015 Paris accords, the ramping up of climate ambition did coincide with a slump in gas and oil investment. But, it was not the former that caused the latter.



After 2014 investment plunged. The huge shock to energy prices also led to an adjustment in the pattern of energy use. If gas could be bought at rock bottom prices, thanks in part due to the abundance created by the American shale revolution, then flexible gas-fired power plants could replace coal-fired electricity generation. After 2014 the "dash for gas" was key to driving coal out of the power-chain. Coal was simply uncompetitive relative to gas. Thus, coal dies in Europe and the US in the years after the Paris conference of 2015. But the causal effect runs through the energy market.

The fossil fuel sector did not so much retreat after 2014 as regroup. Exxon and co imagine a future for themselves as suppliers of feedstock to the global chemicals industry. Saudi Arabia and the Gulf producers know that they will be the global suppliers of last resort.

As far as oil is concerned, in 2021 the energy dilemma is a non-factor. The current surge in oil prices is the result of a deliberate policy decision by OPEC and Russia to throttle production and allow prices to rise. The producers want to take profits to restore their cash balances and reward their investors for their patience since the shock of 2014.

The idea of a secular retreat of fossil fuel investment under the sign of an "energy dilemma" simply misses the mark.

Over the last fifteen years, whilst it was trumpeting its commitment first to the Kyoto climate protocol and then to the Paris agreements, the EU made a substantial physical and financial investment in integrating its system of gas supply with global energy markets. Since the early 2000s, the aim of EU gas policy has to been to create a "liberalised" gas market, that amongst other things would reduce its cold war-era dependence on supply and pricing through contracts with Russia. Furthermore, the EU has moved to pricing gas not on the basis of long-term supply contracts but by way of the spot market. Seen

from this point of view, the huge capacity of pipelines and LNG terminals is not redundant. It is the physical infrastructure that has enabled Europe to play the global gas markets.

Gas is less polluting than coal, but this strategy was not driven by the desire to minimize CO2 emissions, but to minimize energy costs and achieve energy security.

The issue is not that post-Paris climate ambition depressed investment, narrowed margin of supply and created conditions for spike. That entirely exaggerates significance of green policy. What 2021 exposes is that the green push since 2015 has been enacted against the backdrop of a regime of low energy prices set by the price collapse in 2014.

The lesson is not that the EU has been pushing green too hard, too fast. The lesson is that if China and the rest of Asia embark on a huge dash for gas, Europe's investment in market-based gas import model is very high risk. The logic of diversifying away from Russia was good, until you ran into China. The solution is not less commitment to the energy transition but more.

Tooze on Durand (2021) Chartbook #51: Explaining the energy dilemma of 2021- the 2014 shock and the global energy business.

Pisani-Ferry

A simple exploration of the essential mechanisms at work suggests that the *transition to net zero* will confront policymakers with *serious macroeconomic difficulties*. This transition is unlikely to be benign.

Techno-optimism is no reason for overlooking transition cost

Because of the accelerated pace of climate change and the magnitude of the effort involved in decarbonizing the economy, while at the same time investing in adaptation, the transition to net zero is likely to involve, over a 30-year period, major shifts in growth patterns.

Effects will include - a significant negative supply shock, - an investment surge sizable enough to affect the global equilibrium interest rate, - large adverse consumer welfare effects, - distributional shifts, and - substantial pressure on public finances.

If too gradual in the years to come, the transition is likely to prompt precipitous adjustments later. If too swift it is bound to entail large losses resulting from the accelerated obsolescence of existing capital stock and the limited availability of cost-reducing innovations.

An increase of 2 percentage points in the investment- to-GDP ratio would more than reverse the decline in the world investment ratio between 1980–89 and 2010–19.

The main message from a simple analysis is that while discussions of the relative roles of innovation and investment, or the desirable combination of price signals

and regulation, remain important, it is high time to realize that climate policy is also macro policy. A better, more precise discussion on the macroeconomics of climate action is urgently needed. In this context, debates should focus more on identifying the mechanisms and choices involved in what is bound to be a challenging transition.

Pisani-Ferry (2021) Climate Policy is Macroeconomic Policy, and the Implications Will Be Significant (Peterson Institute Policy Brief) (pdf)

Christophers 'Abstract'

The transition, and the 'fossil fuels versus renewables' question at its core, is about investment, not price. To be sure, investment decisions are themselves shaped by price, as indeed they are shaped by government policy and regulation – which, needless to say, can and to one extent or another will reshape the 'purely economic forces' acting on technology shifts and which, deployed in a highly interventionist way, would potentially render the energy transition something other than strictly 'capitalist' (i.e. market driven). But investment decisions are not determined by price. The nub of investment is profit.

Informed by this perspective, the article ventures a different type of stock-taking of transition pro- spects than the IEA's. If our focus should be not on price but on investment and profit (a premise that the article seeks to justify), what can we say about current prospects? The article offers one particular 'cut' at this question, focusing on the activities and investments of major Western fossil-fuel compa- nies – specifically, oil and gas producers.

The pace and extent of the energy transition is as much about the winding down of fossil fuels as it is the ramping up of renewables.

The main finding of the article is that for all the falling price of renewables such as solar, from the perspective of companies such as BP, Shell and Total the investment logic appears to remain weak.

Christophers Memo

The transition literature is not primarily 'economic' in nature. Rather, scholars have typically con- ceptualised the transition in terms of different 'socio-technical' regimes comprising, in the work for instance of the influential Frank Geels, (a) networks of actors, (b) formal, normative and cognitive rules, and (c) material and technical elements. Successful transition, it is argued (e.g. Verbong and Geels 2007), requires positive and mutually-reinforcing developments in all three such domains. Economic factors represent just one of the multiple dimensions – alongside political, cultural and technical ones – on which clean-energy innovations compete with incumbent energy infrastructures.

But, to the extent that the transition literature does concern economics, its focus, like the wider, public-facing, IEA-style discourse referenced earlier (and which at one level it undoubtedly informs), is squarely on price. To win out, renewables must be cheaper. It is perhaps unsurprising that it is widely believed

that renewable energy needs to be cheaper than fossil fuels in order to comprehensively supplant them, for the received wisdom has long been that fossil fuels themselves originally became capitalism's principal energy source on such an economic basis.

Malm's own Fossil Capital (2016) shatters that received wisdom, however. It does so in two ways. First, Malm meticulously demonstrates that the existing orthodoxy is belied by the facts. It is simply not true that water was scarce, in absolute terms or relative to emergent industrial requirements. Nor is it true that waterwheels could not generate as much power as steam. And, most significantly of all, it is not true that steam was cheaper. On the contrary: water was, and remained, cheaper, mainly because it required no human labour to call forth its powers, whereas coal could only be transformed into an energy source through 'massive' inputs of costly human labour-power (p. 91). Second, Malm assembles a series of compelling alternative claims. He does so by treating energy transitions as what, under capitalism, they self-evidently are – phenomena crystallized through a series of active 'investment decisions, sometimes with crucial input from certain governments but rarely through democratic deliberation' (p. 268). Why, Malm asks, did early English cotton capitalists and then capitalists in other industrial branches decide to actively invest in steam? His answer is partly that steam was spatially advantageous. Unlike a waterwheel, a steam engine could be put up more-or-less anywhere, enabling the industrial capitalist to set up in the fast- growing northern towns where labour-power (not to mention other sources of agglomeration econ- omies) was concentrated, and many of the biggest of which happened to be located close to coal- mines. Water power was of course considerably less flexible; firms had to go to it, source workers from elsewhere, and then invest in maintaining them – in the shape, most notably, of worker colo- nies, where the cotton mill-owner, lacking the luxury of being able to readily replace workers, was much more vulnerable to strike action. Steam was also temporally advantageous. Water's irregularity of supply became a significant problem in the context of the increasing demands of export markets. Furthermore, the flexibilization of working conditions and long working days that were required to compensate for such irregularity and associated work downtime were substantially fettered by the 1833 Factory Act and later the 1847 Ten Hours Act. As Malm (p. 192) writes: 'water followed its own clock – not that of the factory'. Steam-based production was much less affected.

Last but not least, steam fitted much better in the brave new world of capitalist private property. Largescale, reservoir-based water-power schemes would perhaps have been preferable to steam for cotton capital at large, but such inherently collective arrangements fell foul of opposition from indi- vidual capitals who saw such schemes as a restraint on their independence and private property rights. Private property and water 'did not mix well'; the latter, invested in at scale, required 'com- plicated communal relationships' (pp. 119-120). Coal and steam did not suffer the same 'collective drawbacks'.

For our purposes, in any event, the specific reasons for the victory of the steam engine and coal are less important than the more general implication of Malm's account. Not only, he shows, was the early-nineteenth-century energy transition the combination of a series of investment decisions. But those decisions ultimately hinged not on price, but on profit. The spatial and temporal advantages of steam consisted in the fact that that technology represented 'a superior medium for extracting surplus wealth.

To grasp the core dynamics of carbon capitalism, it is necessary to refer to 'business decisions based on profit margins' and not 'engineering, ecological or environmental concerns'.

Political-economic scholars have not explicitly examined the shifting profit nexus associated with different energy generation technologies – the ways and extent to which, that is, these different technologies enable capitalists to extract surplus value and to accumulate capital, and with what implications for transition prospects. This, then, is the focus of the present article.

Around a decade ago, the world saw a step-change in levels of investment in renewable energy. Prior to 2010, total annual global new investment had never exceeded c. $180 billion; since 2010, it has never been lower than c. $235 billion

The cost structure of low-carbon technologies such as solar and wind – the two energy sources that account for the vast bulk of renewables invest- ment in the past two decades – was and is a crucial factor. Both are highly capital intensive, which is to say that almost all the costs of energy production are incurred upfront: think of wind turbines. Here, notably, there is a significant contrast with high-carbon alternatives, where, for say a coal or natural gas-fired power plant, between 40 and 70 per cent of the costs are related to fuel and operating and maintenance expenses.

The capital-intensive nature of solar and wind projects long heightened perceived investment risk and, as a result, project financing costs.

The economic constraints on the development of renewables were, as Gupta further noted, only compounded by the fact that gov- ernments worldwide continued to massively subsidise competing fossil-fuel energy sources, to the collective tune of an estimated $312 billion in 2009.

'The high fixed costs and low marginal costs of most low-carbon generators' require 'certainty of revenues' in order to commit financing.

In the face of these perceived economic hurdles to renewables investment, governments in both the Global North and South, at various junctures, responded by introducing mechanisms of pro- motion and subsidisation.

Stimulated by such government measures, capital responded with alacrity. Around the world, investment leapt, both in the technology deployed at renewable-energy plants and in the develop- ment and operation of solar parks and wind farms themselves. As it did so, costs fell dramatically, driven down

by intensifying levels of competition. 'The barriers to entry in the [renewables] sector', as Nick Butler (2019) has observed, 'are low – anyone can become an electricity producer and schemes that allow surpluses to be sold back into the grid are encouraging both businesses and households to build their own capacity'.

In the context of the aforementioned lack of entry barriers and associated intense competition, producers accepted lower and lower prices, and utilities and other major off-takers eagerly encouraged and exploited their willingness to do so. Governments, meantime, saw the fall of production costs as reason to swiftly move to reduce or even remove the subsidies. Widely transitioning to awarding renewable-energy contracts on the basis of reverse auctions whereby, rather than buyers bidding prices up (as per traditional auction formats), sellers bid prices down. By 2017, zero-subsidy bids were recorded for the first time in European offshore wind auctions. Reverse auctions as a rule had become, 'extremely competitive'. he terms of the private power-purchase agreements (PPA) through which generators frequently contract to sell specified volumes of electri- city were becoming markedly less attractive for renewables operators. Not only did prices on renewable-energy PPAs fall to record lows, but the period over which off-takers were willing to offer generators fixed prices – thus shielding them from the merchant-price risk of spot-market volatility – shrank. The upshot of all this is not hard to fathom. Profits have been substantially squeezed. The key question, of course, is how far such investor willingness to accept lower returns will stretch. In May 2019, IEA data showed renewable energy deployments stagnating for the first time since the turn of the century. 'There is no lack of capital in the marketplace for good projects; there is, however, a lack of bankable projects to attract investment and fulfil today's appetite for renewable energy projects'

In other words, in terms of project viability (IRENA's 'bankability'), renewable energy production was now in many ways back at square one. A decade or more after governments stepped in to stimu- late investment in a sector suffering from perceptions of excess investment-risk, things had come full circle. Industry participants fundamentally lack the market power to maintain price at significantly above cost; and where the external government stimulus to investment was removed, the invest- ment case once again became marginal.

Today, then, solar and wind-based energy generation for the most part are not attractive invest ment propositions. Shortened PPAs 'mean that a project has a tighter window to hit its required returns'. Revenues arising after PPAs and their (typically) fixed prices come to an end are referred to as 'residual value'. It used to be the case that investors essentially ignored such value when assessing potential project returns. Not now, however. So parsimonious have PPAs become that renewable project sponsors reportedly are 'relying on over half of their returns coming from the post-PPA period' – an investment stance that, as Merchant notes, represents 'a gamble on merchant power price forecasts that extend 15–20 years in the future'.

The major players today in the renewable energy space are generally distancing themselves from the energy generation business per se, and focusing instead on technology manufacture and/or the development and servicing – but not the ownership and oper- ation – of generation plants. Generating electricity from solar, for now at least, is not where the money is to be made.

There is no simplistic relation between energy prices and energy transition prospects. Low prices for renewable energy products can cer- tainly help drive the transition to carbon neutrality, but only if generators can deliver such low prices profitably – if they cannot, or if the path to profitability is not clear and compelling, the incentive to invest in renewable energy production will not be nearly substantial enough to drive investment on the scale that is ecologically necessary.

BP looks for an IRR 'of around 10%'. But its realistic assessment is that 'expected returns' on its renewable power projects will be in the 8–10 per cent range. That, of course, is higher than the returns – in the 4–8 percent range – that, as we saw earlier, existing operators are achieving. Is BP ignoring market realities, then? Not entirely. It accepts that 'normal' returns are lower – around 5–6 per cent. But it thinks it can lift returns to the 8–10 per cent level by virtue of three special 'differentiating' factors that it putatively brings to the table: operational and project expertise; integration; and structured financing. The last of these stands out: elsewhere in the same document, 'innovative financing' is identified as a key source of the 'enhanced returns'

BP suggests it can possibly lift renewables returns to above 10 per cent if it utilises so-called 'farm-down' (otherwise known as asset rotation or build- sell-operate), which involves selling equity stakes in projects to outside investors during the pre-con- struction phase in order to free up capital for further projects. BP says its target for its renewables business is a return on average capital employed (ROACE) by 2030 of 8–10 per cent. This fundamentally is not, for now at least, a high-profit business.

They know, from experience, that wind and solar are not like oil and gas – that since, in Malm's words, 'the fuel is not hidden away in a separate chamber, but rather hangs like a fruit for anyone to pick, there is little surplus-value to extract in its production' It has not helped the renewables' case that, even now, they often remain visually as well as operationally and financially peripheral at the oil and gas majors.

The flip side of the investment-calculus coin is the majors' continuing robust investment in new hydrocarbon projects, which, by contrast, do still reliably offer the returns they demand.

This vast ongoing investment in oil and gas production creates huge, long-term inertia, locking the world into fossil-fuel energy landscapes for many, many years to come.

All of this underlines the fact that unless the regulatory environment shifts in

dramatic fashion, the world's leading fossil-fuel producers, guided by the investment logics we have described, will long remain primarily fossil-fuel producers: they constitute fossilised capital, not mere fossil capital.

This, ultimately, is the terrible paradox: to fund the transition to being something else (renewable energy producers), the oil and gas majors are relying heavily on what they currently are. The more negative market sentiment becomes, the more important the hydrocarbon business becomes. 'The cash generated by hydrocarbons will be key to supporting [our] transition', concedes BP. Surviving through, still less prospering from, the energy transition requires 'allocating sufficient capital to our resilient hydrocarbons business to gen- erate sustainable cash flow'. The sooner governments and regulators recognise this sobering reality, the sooner something substantive can be done about it.

While renewable energies may now be widely competitive with fossil fuels on price, it is far from clear that they are competitive in relation to the producer profits they afford.

Focusing on these *companies* is crucial for another reason. The energy transition is often pictured in terms of a transition in energy types. Of course, it is that; but it is not only that. It is necessarily also in significant part a transition in the nature of a set of existing capitalist institutions. Investments that may appear logical from the perspective of economic theory and its bloodless and rootless agents and its ready availability of capital may be illogical from the perspective of worldly institutions that arguably now face an existential battle and for whom the question is not fossil fuels or renewables, but rather what mix of the two in the short and medium term will enable a long-term shift from the former to the latter that is maximally profitable while also meeting complex, fluctuating and overdetermined criteria of social, political and ecological tolerability.

Christophers (2021) Fossilised Capital: Price and Profit in the Energy Transition (pdf)

3

Demographics

3.1 China

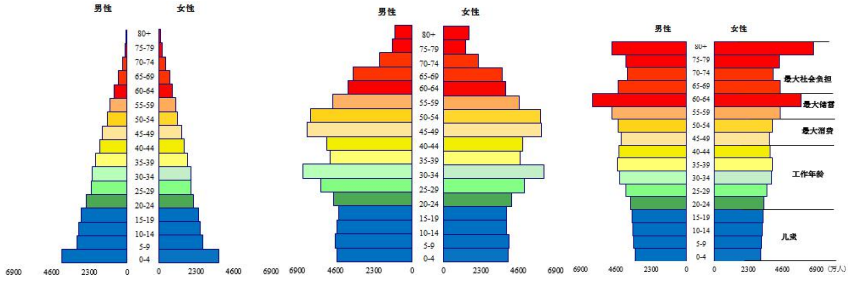


Figure: China Population Pyramid 1950 2019 2050

Batson

The working paper on demographics recently published by the People's Bank of China is a pretty interesting document, and has gotten more than the usual amount of attention. It doesn't read much like the cautious, dry and technical papers previously released by this august institution. There's not much quantitative analysis or rigorous logical argument; it's more like an extended op-ed, arguing vigorously that major demographic changes for China are coming and that the country needs to wake up to that fact and adapt quickly.

This call to arms is well-timed. It seems likely that the much-delayed figures for China's 2020 population census will confirm what many demographers have been saying for a while: that China's fertility rate has been overstated, and therefore that its demographic transition and the aging of its population are going to happen even faster than standard forecasts project.

Batson 2021 Demographics might change everything for China

Hao

Abstract: Since the industrial revolution, the death rate and birth rate have fallen successively, which has created a demographic transition and brought people to the world. Mouth explosion, demographic dividend, aging and declining birthrate. Developed countries, as pioneers in the transition, underestimate people The role of the population and the seriousness of aging and declining birthrates overestimate the importance of education technology, encourage childbirth, and improve the elderly. effect. Since the founding of the People's Republic of my country, the population of our country has expanded from a rapid growth to a slowdown, and the population structure has grown from a pyramid to a long one. It is square, and our country's population transition time is shorter, aging is faster, and declining birth rate is more serious. Our country must recognize The demographic situation of the Qing Dynasty has changed. It is necessary to realize that the demographic dividend was used comfortably at the time, and it is a debt that needs to be repaid afterwards; It is necessary to realize that population inertia is a huge force across generations, and its reactionary force will cause the population to change in the opposite direction; Realize that education and technological progress cannot compensate for the decline in population. To this end, we should fully liberalize and encourage childbirth, Really solve the difficulties of women in pregnancy, childbirth, nursery school, and school, comprehensively implement strategies, and work hard for a long time. Now we have a long-term plan for 2035 and a century-old goal.

Memo:

1. The transformation of the world population

(1) The four stages of demographic transition 2 Since the industrial revolution at the end of the eighteenth century and the beginning of the nineteenth century, 3 economic and social development has led to population deaths The birth rate and birth rate have successively declined, but due to the time lag between the two declines, the world has experienced "low growth (I) -Accelerated Growth (II)-Growth Slowdown (III)-Low Growth (IV)" four stages of population transformation. In the first stage (agricultural society before the industrial revolution is usually at this stage), productivity is underdeveloped, and the population is dead. The death rate is high, but in order to maintain the stability of the population size, the birth rate is usually high. This leads to the population age structure Pyramid shape, low dependency ratio for old age, high dependency ratio for children 4, slow economic growth. Phase II (initial and mid-stage of industrialization), with income growth, nutrition, hygiene and medical conditions Improvement, the mortality rate of the population declines rapidly, but the birth rate is usually difficult to follow. This leads to a rapid population size Increase, the population structure develops from a pyramid shape to a rectangular shape 5, that is, the decline in the mortality rate causes the elderly population to occupy The ratio and the proportion of

> the labor force have risen, pushing the top and middle of the pyramid to widen, but the birth rate has not decreased accordingly. Therefore, the bottom narrowing is not obvious. During this period, both the old-age dependency ratio and the child dependency ratio showed a downward trend. The growth rate is accelerating. In stage III (the middle and late stages of industrialization), the mortality rate of the population further decreased, but the rate of decline decreased. Contrary to what Malthus expected, the birth rate did not increase with the improvement of nutritional conditions, but decreased. (Google Translation)

Hao (2021) Cognition and countermeasures about China's population transition PBC WP2021/2

4

Debt

Fischer Abstract

In the aftermath of the COVID-19 pandemic, much of the global South has been immersed in a debt crisis of a breadth and depth not seen since the early 1980s. The debt distress was apparent before the pandemic and the situation over the last decade is best described as a slow burn, which the pandemic and war in Ukraine ignited in often sudden and dramatic ways. However, what remains a surprising feature of the ongoing situation has been the avoidance so far of a generalized domino effect, unlike previous systemic Southern debt crises. This fact does not diminish the severity of the consequences given that the containment of crisis has been achieved by regular and persistent applications of austerity and adjustment programmes with deleterious impacts on development in poor countries. This article frames the Debate by exploring these aspects of the current Southern debt crisis, focusing on its deeper structural drivers versus the role of more proximate triggers of the crisis; the similarities or differences with past crises of recent decades; and the degree to which anything has in fact changed in orthodox responses to crisis management. A theme that emerges from the more heterodox scholarship profiled by this Debate is that the current crisis and its responses are maintaining the dominant development paradigm of the last 40 years, rather than eliciting a shift away from it. There is a continued adherence to neoliberal ideology in macroeconomic policy making and to the punitive subordination of developing countries in debt distress, through crisis responses, to the Northern and especially US-centred international financial system. Ignoring the very strong similarities to the past, especially the 1982 debt crisis that ushered in this paradigm, risks repeating the lost decades to development that followed.

Fischer (2023) The Return of Debt Crisis in Developing Countries: Shifting or Maintaining Dominant Development Paradigms?

5

Decolonization

Farooqi

Decolonization allowed a hundred newly independent countries to pursue their own trade policies. Modernizing elite coalitions in most postcolonial nations tried to achieve industrialization through import substitution behind protective tariff walls. None succeeded. Not one. Zero. The ones that did manage to industrialize invariably did so out in the open, on the backs of export-oriented industries. In the cross-section of 163 countries, a 10 percentage point greater exposure to the world market is associated with 0.36 percent faster growth in per capita income. The reasons for this strong pattern are not hard to discern.

In the Heckscher-Ohlin model, cross-country variation in the opportunity cost of production is the source of comparative advantage and gains from trade. All countries gain from the resulting international division of labor and the economies of scale that attend specialization. Even countries that specialize in industries where prospects for productivity growth are meager stand to gain from improving terms of trade arising precisely from differential productivity growth across global industries. The dependency theory argument against Ricardian comparative advantage goes as follows. Yes, countries can gain from trade by specializing in activities where they have a static comparative advantage. But this may come at a dynamic cost because specialization in some activities, in the presence of externalities such as regional and intersectoral spillover effects, may be more conducive to future aggregate productivity growth. This argument hardly applies to highly diversified economies like the US, but it does apply with some force to countries that have a comparative advantage in commodity extraction.

At any rate, following the logic of path dependence takes us back to the very same place because the dynamically advantageous economic activities are precisely those in the tradable sector. In the United States, value-added per worker in the tradable sector has grown at 3 percent per annum over the past two

decades. In the non-tradable sector, it has grown at just 0.6 percent per annum. In the cross-section of US states, a 10 percent higher share of tradables in value-added is associated with 0.7 percent higher productivity growth.

Regions and countries with a higher share of economic activity in tradable sectors innovate more, are more productive, have higher wages and narrow the "productivity gap" faster.

Not only is exposure to the world market strongly associated with dynamism at the level of industries, administrative regions and countries, it is also associated with dynamism at the level of firms within any given industry. It is a well-known empirical law that exporting firms are more productive than non-exporting firms. And it is not just that high productivity firms self-select into competing on the world market, although it is known that such sorting takes place systematically. Scholars have documented what's called "learning by exporting": productivity grows faster in exporting firms, even after controlling for prior levels of productivity. This is because exposure to the world market is not only a source of disciplinary competitive pressures on the firms but also provide[s] them with valuable ideas and information that is not available in their domestic markets, thus enabling them to boost their subsequent innovation output and firm productivity.

The Heckscher-Ohlin class of Ricardian models explained inter-industry between countries; they could not be modified to explain the dominant pattern of trade in the core of the world economy: trade within the same industry between countries with similar factor endowments. New trade theory, beginning with the pioneering work of Krugman and Helpman, highlighted the importance of product differentiation and increasing returns to scale to explain why intra-industry trade was dominant and why most trade takes place between countries with very similar factor endowments.

Farooqi (2023) Notes on US China Policy

6

Dependency

Roberts

Dependency theory emerged in the 1960s and 1970s as a critique of 'modernisation' theory, which argued that poor countries could develop by following the same path as wealthy countries. Dependency theorists argued that this was not possible because poor countries are systematically exploited by wealthy countries. The theory was developed mainly in Latin America, when the so-called Golden Age of booming capitalist development after WW2 in the major advanced capitalist economies came to an end.

It seemed that economic development as in the 'West' did not apply to economies in South America, the Middle East or Africa. In 1945, Latin American countries like Argentina and Brazil has per capita incomes not so far behind that of the weaker capitalist economies of southern Europe and it was expected that under governments that looked to follow the industrial economies of the North, Latin America would prosper. That hope evaporated in the downturn in profitability and investment that ensued in the late 1960s and through the rest of the 20th century.

I think we can start to consider dependency theory from a brief phrase that Marx wrote in his 1867 preface to Volume one of Capital. He wrote: "The country that is more developed industrially only shows, to the less developed, the image of its own future." Marx was writing when Britain was at the pinnacle of its economic power and industrial might. Capital was an analysis of such a capitalist economy. And Marx thought capitalism would spread globally so that other rival capitalist powers would emerge – and he was right. Germany, France and, above all, the US caught up with Britain (in its own 'image') by the end of the 19th century.

It would only be a small group of industrial and commercial capitalist economies that achieved Marx's prediction.

Those powers were then able through military, financial and technological prowess to block the progress of capitalists and their workers in most of the rest of the world. Lenin wrote in 1915 that there were just a handful of countries that controlled the world's technology, finance and resources. One hundred years later, those 'imperialist' economies are much the same and broadly still dominant. And thus we can talk of a dominant imperialist bloc and a 'dependent' rest of the world.

Dependency theorists identify two main groups of countries in the global economic system: the core and the periphery. The core countries are wealthy countries that control the global economy. The periphery countries are poor countries that are dependent on the core countries for trade, investment and technology. Indeed, the word 'periphery' seems better to me than 'dependent'. The latter could imply that the capitalist class in the periphery plays no independent role in exploiting its own working class and exploitation is totally the result of imperialist domination and foreign companies.

Where dependency theory plays a positive explanatory role is in the idea that resources flow from a "periphery" of poor and underdeveloped states to a "core" of wealthy states, enriching the latter at the expense of the former.

The theory rejects the mainstream theory of 'development economics' upon which the international institutions of the United Nations (UNCTAD – 'trade and development'), the World Bank and IMF stand, that all societies progress through similar stages of development and that today's underdeveloped areas are thus in a similar situation to that of today's developed areas at some time in the past. Therefore, the task of helping the underdeveloped areas 'out of poverty' is to accelerate them along this supposed common path of capitalist development, by various means such as investment, technology transfers, and closer integration into the world market. The periphery is thus described as 'emerging' or 'developing' economies.

The mainstream argues that dependency can be overcome by national policies of Keynesian-type state spending, import substitution for foreign goods and financial regulation.

This variant has shown to have failed in practice in taking countries like Argentina or Brazil into the top tier of capitalist economies. Instead, Marxist dependency theory argues that these countries will remain 'dependent' because of the huge extraction of value from labour in their economies to the imperialist bloc through trade, finance and technology.

Unequal exchange

Unequal exchange' in international trade is a fundamental component of Marx's theory of value. However, within dependency theory, differences arise on the nature of that unequal exchange: is it due to wage differences or technologically driven productivity differences? Do the imperialist countries through their multi-nationals gain surplus profits from the cheap labour of the peripheral

countries or from their superior technology and lower unit costs in international trade?

The most prominent of Latin American Marxist dependency theorists, Ruy Mauro Marini "had greater affinities those who ascribed unequal exchange to differences in productivities rather than wages." This maintained that the wage gaps were explained by disparities in the development of the productive forces rather than vice versa. "The wage is a result rather than a determinant of accumulation, arguing that wage levels in each country depend on productivity, cycles, capital stock, and the intensity of the class struggle."

My own empirical study jointly with Guglielmo Carchedi on modern imperialism finds that the transfer of value from the periphery to the core economies through unequal exchange in trade is mainly due to productivity differences and technological superiority.

Marini did propose the concept of super-exploitation, namely where wages in the periphery fall below the value of labour power or below the average international wage.

Katz argues that 'super exploitation' cannot be the main determinant of value transfer between rich and poor countries. "It dilutes the logic of surplus value" and it suggests a Proudhonian concept of theft rather than the "objective logic of accumulation". As Katz points out, super exploitation also exists in neoliberal imperialist economies with 'precarious employment' and zero-hours contracts etc.

In my view, the point is that the value transfer to the imperialist North takes place because of their superior technology and labour productivity. That enables the imperialist North to sell its goods in world markets at costs below the international average. The capitalists of the periphery try to compensate for their lower technical level and productivity by driving the wages of their workers down. So the higher rate of exploitation in the South, whether by super-exploitation or not, is a reaction to the failure to compete against the North.

Was monopoly power the main cause of the dominance of imperialist companies? Some dependency theorists claim so. However, Katz reckons that was not the case with Marini. "Marini was always closer to the Marxist thinkers like Mandel who highlighted this dynamic of differentiated competition among monopolies. He maintained greater distance from theorists like Sweezy who stressed the unrestrained ability of large firms to manage prices." But Marini did not go so far as Shaikh who Katz argues denies "the clear existence of gigantic corporations that obtain extraordinary profits in certain markets at the expense of smaller companies."

"It helps to understand the hierarchical structure of contemporary capitalism" with "an apex of central powers and a base of dominated countries… in between are these subimperial powers trying to obtain regional hegemony." I am

dubious that sub-imperialism helps us to understand contemporary capitalism. It weakens the delineation between core imperialist bloc and the periphery of dominated countries. If every country is a 'little bit imperialist', if it engages in war with a neighbour of over markets, resources and territory, then imperialism starts to lose its validity as a useful concept. So-called sub imperialist countries do not have sustained and huge transfers of value and resources to them from weaker economies. In our own work on imperialism and in empirical work by others, this hierarchical structure of value transfer is not revealed. India, China and Russia actually transfer much larger amounts of value to the imperialist bloc than South America.

Take the BRICS, the best candidates for being 'sub-imperialist'. There is no evidence of significantly large and long-lasting value transfers to them from weaker and/or neighbouring economies. They just don't have the financial, technological and military superiority to obtain such transfers.

Brazil is not sub-imperialist as Marini saw it. It has not become a rising industrial power dominating the sub-continent.

The great hope of the 1990s, as promoted by mainstream development economics, that Brazil, Russia, India, China and South Africa (BRICS) would soon join the rich league by the 21st century, has proven to be a mirage. These countries remain also-rans and are still subordinated and exploited by the imperialist core. And the gap between the imperialist economies and the rest is not narrowing – on the contrary. And that includes China, which also will not join the imperialist club.

"Dependency theory is very useful for understanding that variety of situations. It explains the logic of the underdevelopment and marginalization of the periphery without limiting its analysis to global polarities."

What Katz's comprehensive survey of 50 years of dependency theory does show is that Marx's value theory of "productive globalization based on the exploitation of workers remodels the cleavages between center and periphery through transfers of surplus value." And it is "the omission of that mechanism prevents the critics of dependency from understanding the logic of underdevelopment."

So "reintegrating the theory of value into the explanation of dependency is also vital for uncovering the hidden skeleton of present-day capitalism. There is no invisible hand that is guiding markets, nor is there a wise state institution steering the economy. The foundation of the system is competition for profits arising from exploitation, multiplying the wealth of minorities and the suffering of the majorities. The same indignation and rebelliousness that drove the study of underdevelopment in the past orients that inquiry in the present."

Roberts (2023) 50 years of dependency theory

7

Development Economics

> The primary task of economic development is to bring people out of poverty. (And when that is done, what should development be?)
>
> Progress is the increase of options (Noah Smith)
>
> "Development" (growing bio-economic pressure) amounts to increasing the total energy throughput of the economy while decreasing the amount of human activity allotted to the productive sector. (Giampietro/Fix)
>
> National wealth comes from ingenuity, hard work, good institutions, sound policy, political stability, and openness to foreign ideas and investment. (Noah Smith)

Trainer

Thinking about development is dominated by a conventional conception which takes for granted the centrality of increasing production for sale, integration into the globalized market place, moving to more sophisticated technologies, and the goal of rising to affluent rich-world living standards. Basic criticisms of this conception of development are briefly summarized, firstly to do with the way it has primarily benefitted the rich and secondly regarding its grossly unsustainable resource implications. Global biophysical resource endowments prohibit its realization. There has been remarkably little thinking from conventional or critical sources on the goals and means which a sustainable alternative must take. The Simpler Way project is concerned to show the necessity for, and desirability and workability of, the development of mostly small scale, cooperative, highly self-sufficient and self- governing local economies focused on meeting basic needs, and not concerned with economic growth, globalization, competing in the global market place, or aspiring to rich-world "living standards". It is argued that only some form of Simpler Way can enable satisfactory global development within sustainable resource and ecological limits.

The major fault in most if not all previous development thinking has been failure to grasp the need for materially simple lifestyles and systems.

Conventional development can be regarded as a form of legitimized plunder.

Alternative, appropriate development ... The simpler way

The basic element in appropriate development is the small, highly self-sufficient and largely co-operative local economy.

The transition can be a process of gradually building a new "Needs-Driven-Economy" underneath the old "Profit-Driven-Economy". It can begin by a few coming together as a Community Development Cooperative to organize the provision of some neglected basic goods and services, for example by setting up community gardens, poultry co-ops or aged care rosters. Their long term goal would be to increase these cooperative, socially desirable non-market activities until they might largely replace the old economy.

Trainer (2021) Third World Development RWER 95 (pdf)

The Failure of Neoliberal Development Policy

Until the mid-1970s, development economics was based on the notion that a middle-income country is a country with the same type of economic struc- ture—a large manufacturing sector—as a rich country. It was understood that for a variety of reasons—among them market size, technological sophistica- tion, relatively high price of capital relative to labour, etc.—the industrial sector of a poor country would need a lot of time before it would be strong enough to face competition from wealthier countries. Th is period of 'infant industry protection'—as John Stuart Mill called it—is comparable to the many years amazon.com operated its business with great losses. Slowly industrializing a nation represents the same kind of trade-off between present costs and greater returns (e.g. wages) in the future. In the meantime the poor country would earn scarce foreign exchange from the export of commodities. For developing countries, customs duties tend to provide a large share of government revenue, and because ports were relatively easy to control, even weak governments could easily secure this revenue (e.g. compared to a value added tax).

As already alluded to, if China and India are separated from the rest of the developing world the development record over the last 35 years has been poor in most developing countries. China and India have based their national development on continuing their industrialization eff orts 5 started around 1950 (Nayyar 2007). In no way can these countries be considered showcases of the neoliberal policies propagated by the Washington Consensus. On the con- trary, they followed the policy advice of Friedrich List (1841) that industrialized Continental Europe and the United States: industrializing and then slowly 'opening up' borders. China and India may have allowed too little competition for too long, and may have opened up late, but these are small mistakes com- pared to the policy errors of the Washington Consensus responsible for the deindustrialization of so many developing countries in the periphery.

The term *creative destruction*, inspired by Joseph Schumpeter, has grown increasingly popular, and is sometimes used to justify all kinds of changes. However, destruction and creativity may take place in diff erent parts of the globe, as when the textile mills of Manchester replaced the weavers of Bengal during the fi rst Industrial Revolution. Th is paper argues that trade liberalization divided the Th ird World into two groups: (1) those—like India and China—that pursued industrialization for more than 50 years and benefi ted from access to the world market, and (2) those countries where industrialization was too weak to survive, the synergies of industrialization were put in reverse, and the economies deindustrialized and thus became *primitivized*.

To make a comparison appealing to the readers' intuition: it is much better to be a medio- cre lawyer than to be the world's most effi cient cotton-picker. Th is is the principle upon which all successful industrial policy has been built from Henry VII came to power in England in 1485 until the post-WW II Marshall Plan in Europe. It has been articulated by classical development economics, but undermined by the Washington Consensus. Th e rest of this section shows the mechanisms with which the Washington Consensus policies have *primitivized* the periphery

The dismal performance of neoliberal development poli- cies that came into eff ect starting in the late 1970s, when debt crises in the Th ird World forced Th ird World countries to open up abruptly. Deindustrial- ization was the price paid for being saved by the IMF and the World Bank.

In many ways, the United States can be seen as the prototype successful developmental state. Aft er US independence, the Continental European understanding of development as synergies among a large number of increasing returns industries was retrieved from European literature and rediscovered by US economists. Th ese economists insisted that the United States, in spite of its abundance of natural resources and obvious comparative advantage in agriculture, would grow poor without manufacturing industry.

Later, along the same lines of reasoning, Henry Carey (1793– 1879) insisted that trading too much with Britain would preclude the United States from enjoying the bounties of future technological change.

Huge subsidies in the form of cash transfers have saved the fi nancial cores of capitalism against their own mistakes. Now, it is time to save the true victims of the market—the world's poor—from the same type of mistakes, imposed on them by others.

We mentioned the French Revolution and the late 1840s as two periods when views of the market as harmony-ensuring swift ly shift ed to acknowl- edge that markets are potentially chaos producing. However, with the theories of David Ricardo, the illusions of trade as a harmony-producing machinery came back. 1846 saw the repeal of the Corn Laws and the peak of infl uence of Ricardo's economic theory. A deep fi nancial crisis in 1847 marked a turning

point, followed in 1848 by revolutions in all large European countries with the exception of England and Russia.

1848 produced three important books all critical of the economic order legitimized by Ricardian economics: Karl Marx and Friedrich Engels' Com- munist Manifesto (Marx was so radical that he was forced to fl ee Germany for England), Bruno Hildebrand's National Economics in the Present and in the Future (Hildebrand was a liberal who had to fl ee Germany for Switzer- land in order to escape the death penalty 8) and John Stuart Mill's Principles of Political Economy. From completely diff erent political angles, all three books attacked the mainstream economics of the day for suff ering from the same weaknesses of which we accuse today's mainstream. By attempting to make economics a much more accurate science than it merits, mainstream economics has created economic disasters: both fi nancial crisis and pov- erty in the periphery. All three 1848 books understood that national wealth required industrialization, recanting Ricardo's trade theory, the very same theory which at present—in its most simplistic form—provides the basis of the world economic order that locks poor nations into a comparative advantage of being poor.

Table: The coming shift in economic focus: Before and After the 1848 moment

Pre-Financial Crisis Focus	Post-Financial Crisis Focus
Capital	Technology and entrepreneurship
Financial economy	Real economy
International trade	National production
Economic models	Economic facts and their contexts
Distribute capital ('aid') to eradicate poverty	Distribute production to eradicate poverty
Perfect competition	Poverty eradication needs high wages and capital formation that only dynamic imperfect competition creates
Economics strongly ideologically biased. The Washington Consensus maintained markets are good and the state is bad	Separation of analysis and ideology, 'technocratic' analysis
Economic activities qualitatively alike	Economic activities qualitatively different
Gross national product per capita	Real wages
Economics as a science defined by the use of certain tools	Economists' toolbox extended to any relevant approach
The market as an ideological goal	The market as a tool for wealth creation

The one single message in this paper is that the only way to create middle- income countries is to create countries with a large division of labour in increasing

returns sectors—countries with a manufacturing sector (and advanced services). Diversifi cation away from the primary sector and the cre- ation of employment must be given priority before free trade. Th is has been the basis of all successful developmental practice since the late 1400s and of development theory since 1613. At times, this principle gets suppressed by excessively abstract economic theories—at the time of the French Revolution, n the 1840s and since the late 1970s—but empirically-based theories eventu- ally come back, resurrected by economic crises. The nexus that always gets rediscovered is the apparently paradoxical but crucial connection between manufacturing and wealth: that building a non-agricultural sector is the best way to eradicate poverty and famine.

Th e 1948 Havana Charter—approved by all members of the United Nations at the time—was based on the principles of John Stuart Mill and of the Marshall Plan. A blueprint for the development of peripheral economies exists in the Havana Charter, and a key factor is the timing of free trade.

Policies that create and nurture increasing returns' sectors in poor countries are needed, and discussion of how and when to turn on and off will be as heated as it has always been. When successfully promoted—as in the United States—protection carries the seed of its own destruction: having achieved a certain size and skill level, protected companies themselves seek larger markets and freer trade in order to stay competitive. History does not supply easy formulas, but at least shows us some very important principles that have been ignored far too long due to the Washington Consensus.

Reinert (2011) The terrible simplifiers (pdf)

7.1 Death of Global Development

David Oks and Henry Williams

Early in the third decade of the twenty-first century, that once-hegemonic view of global development seems to have lost its coherence. The Covid pandemic, supply chain emergencies, agricultural shortages, the war in Ukraine, the emergence of global inflation and energy shocks, monetary tightening in the West, the specter of global recession—all of these have scrambled the optimism of the 2000s and 2010s. Fiscal insolvency has become a live possibility for countless poor governments, and many years' worth of gains in income have been erased. The World Bank announced in October 2022 that progress in reducing extreme poverty had ground to a halt, with the prognosis for the next few years uncertain. The events of the last two years, the Bank's president said, had conspired to "throw development into crisis."

We aim to show why the prognosis for the poor world is much worse than the standard picture—preoccupied with a purely quantitative account, however rigorous, and ignorant of more geographic, historical, and political-economic approaches—has allowed; to explicate the structural changes that have under-

girded the perverse trajectory of global development; and to outline a more realistic outlook, married to a new framework, for a return to real development.

The crux of the problem is this: despite attempts to find alternative models of economic development, there is no widely replicable strategy to develop a country—simply put, to turn it from poor to rich—that does not involve an economy becoming highly industrialized. But in recent decades, the growth of manufacturing sectors, and thus of economic development more broadly, has been overwhelmingly concentrated in East Asia, particularly in China. Across the bulk of the poor world—here we have in mind Latin America, South Asia, the Middle East, and sub-Saharan Africa—economies have been experiencing a more disturbing trajectory: simultaneous deagrarianization and deindustrialization, especially in the years after 1980.

The result is that industrialization, development, and massive income growth in East Asia has statistically "compensated" for stagnation almost everywhere else—with East Asian industrialization partly responsible for the loss of other countries' manufacturing bases. This has been the case even as incomes have risen in most of the poor world, mainly on account of the 2000–15 commodity supercycle driven in part by the explosive growth in demand from the Chinese market—which, ironically, helped lock emerging markets into low-tech, undiversified export profiles. Asian success, in short, has obscured a bleaker picture in the rest of the world.

Most emerging markets have not found an engine of durable growth comparable to manufacturing—most have indeed grown over the last few decades, but dependence on services and commodities exports has not made them rich. Thus most "developing" countries—we are skeptical of that euphemistic label—are in a worse structural position than they were a few decades ago: less economically complex and more socially unstable, with their developmental coalitions, if they ever existed, badly frayed. For all the intermittent hype around "rising India" or "rising Africa," systemic dynamics—deindustrialization, ecological disruption, demographic headwinds—will pose severe challenges to economic development over the coming decades. New waves of industrialization and meaningful development are unlikely in these parts of the world. From the perspective of poverty statistics, Africa will assume particular importance: by far the continent with the worst economic performance over the last several decades, it is there that the most significant population growth will occur over the next century. The result, pending dramatic change, is a world in which the progress made against poverty over the last forty years will slow, stagnate, or even reverse.

For most of the world, there is no real path to development that does not run through manufacturing.

Appropriately, then, it was the part of the world that has seen the most industrialization in the last fifty years, East Asia, that has also contributed by far the most to global economic development. For all the optimism around "global" poverty reduction in the twenty-first century, in fact, it is striking how much

progress has come from a single powerhouse—the People's Republic of China. In the decades since 1980, it has been there, and in smaller East Asian economies like South Korea, Taiwan, Singapore, and Hong Kong, that the lion's share of actual economic development and poverty reduction has occurred.

China's gains have contributed about 45 percent of the total reduction in the "extreme poverty" metric since 1981.

The positive outliers for truly strong growth in median incomes can be found in Southeast Asia, especially Vietnam and Indonesia. Vietnam's growth is particularly strong thanks to its own manufacturing miracle, and comes close to that in China.

Income growth in the poor world outside of China appears weaker still when one considers how much was the result of the 2000–15 commodities boom—and thus, indirectly, of Chinese growth. Hot commodities markets in those years allowed Latin American, Southeast Asian, and some African nations to increase incomes and reduce poverty. But those income gains, dependent as they were on the knock-on effects of Chinese growth, masked a more disturbing trend: the structural weakening of these countries' development potential. Incomes are higher and poverty is lower today than in the past. But the type of development takeoff seen in China is more out of reach for poor countries now than it was a few decades ago.

Between 1979 and 1982, the average price for lumber fell by 40 percent, copper by 25 percent, coffee by more than 20 percent, and sugar by about 10 percent. But the pain in the poor world was arguably much greater. The booming commodity cycle met its chaotic death, and dozens of economies screeched to a halt; expansionary fiscal programs that had been built on the assumption of strong growth soon found themselves in crisis, while higher borrowing rates significantly increased the cost of servicing dollar-denominated debts. Brazil is paradigmatic: while from 1960 to 1980 real per capita GDP increased by more than 140 percent, from 1980 to 2000 it grew by less than 20 percent. Similar decelerations, recessions, or depressions occurred all over the poor world, leaving lasting damage.

The twenty years that the Volcker shock inaugurated can be summarized as two lost decades for development, with incessant crisis replacing stable growth. Across the poor world, deep recessions led to fiscal insolvency, social and political collapse, and massive bloodletting.

Most poor states emerged from those two decades severely weakened. The bold national developmentalism of earlier decades, whether anticolonial, as with Sukarno, or Western-aligned, as with Houphouët-Boigny, had been discredited by economic contraction and declining living standards. Expansionary fiscal regimes were withdrawn, and internal conflicts moved the foci of government activity elsewhere. The "structural adjustment" programs that the IMF required for debt relief, or which were advocated independently by enthusiastic liberalizers like Hernando de Soto, further diminished state capacity through pri-

vatizations, deregulation, and government layoffs. In desperation, many poor-world governments began to liberalize their capital accounts in order to spur foreign investment, increasing volatility and culminating in a series of financial crises—in Mexico in 1994, in various Asian economies in 1997, and in Russia in 1998. Yet all these "reforms," despite the support they received from Western economists or foreign acolytes like de Soto or Anatoly Chubais, did little to improve growth fundamentals. Instead, they gave the poor world the hollowed-out states with which they would enter the new century. Many public sectors had been so desiccated by the chaos that they were simply unable to manage the societies over which they presided; in the worst-hit places—like Somalia, where state collapse in the 1990s led to the return of customary law—what little remained can be termed, in the words of the Nigerien historian Rahmane Idrissa, "government by means of the aid industry," with exenterated states surrendering core governmental functions to the organs of the international humanitarian complex.

However horrific these crises were, the central structural transformation of the 1980–2000 period would ultimately be of a deeper and more damaging nature: the unexpected arrival of deindustrialization in the poor world. The successive waves of deindustrialization that swept the world after the 1970s crashed most famously on Western shores, in the Rust Belt of the United States, in northern England and Scotland, and in northern France. But deindustrialization was a *global* phenomenon, touching nearly every economy on earth. In fact, after 1980, poor countries suffered a process of relative deindustrialization just as intense as that experienced in more advanced economies—and often more so—due to the same primary cause: the emergence of the Chinese industrial behemoth, which displaced Mexican and Iranian workers as fiercely as it did American or French ones.

In the Western countries, deindustrialization could at least be slotted into a convenient narrative of evolution into affluence—a necessary part of transitioning to a higher stage of development, in which skilled, cosmopolitan "knowledge workers" would populate a comfortable "mature economy." But no such narrative could be furnished for places like Brazil or India, where deindustrialization coexisted with a still overwhelming degree of backwardness and poverty. As it left the poor world, industrialization's historical task was still undone.

At the same time, another structural change began to make itself felt: an accelerating process of **deagrarianization** in the years after 1980.

The increased capital intensity of post–Green Revolution farming—demanding inputs like artificial fertilizer that many could not afford—put particular pressure on many small-time agriculturalists. Around the same time, increased exposure of national agricultural economies to global markets led to a rewiring of poor-world agriculture toward specialization, with self-sufficient national agricultures challenged by a new emphasis on the comparative advantage in cash crops. The withdrawal of state agricultural subsidies and tariffs during the crises of the 1980–2000 period added further strain, as did desertification and

soil degradation due to poor land management in places like Southeast Africa and Haiti. These trends placed ever-greater pressure on small farmers. Many were forced to go into insurmountable debt, leading to an epidemic of suicide among Indian farmers; others had to take seasonal jobs in cities to supplement their incomes from farming. The ultimate result was an accelerated process of deagrarianization and mass migration into urban centers. With rural migrants flooding in as national populations boomed, the cities of the poor world grew massively during the post-1970 period. Almost all of this growth, however, was concentrated in ever-growing slum belts around urban peripheries.

Simultaneous deagrarianization and deindustrialization left a void in poor-world economies - economies trapped between commodity-export dependence on the one side and low-skill service work on the other.

With industry and agriculture both in relative decline, many postindustrial economies reverted into raw commodity exports, especially after global commodity demand began to pick up again in the mid-1990s with the Chinese take-off. A speedy decomplexification [occured], with extractive rentierism becoming increasingly central.

Because of Chinese growth, resource exporters in Latin America, like Ecuador, Bolivia, or Brazil, were able to support "Pink Tide" governments marrying resource extraction and economic redistribution, significantly reducing poverty and building out basic infrastructure.

When the commodity cycle turned—as it did in 2014–15, with Chinese growth slowing and oil prices tumbling as American fracking surged—the extractive model proved its fragility, with economic crises leading to a wave of global political instability.

Surplus labor was absorbed into a nebulous economic stratum which economists categorize, quite euphemistically, as part of the "service sector." In the public imagination, the standard archetypes of these service workers are the call-center workers and IT professionals of Bangalore or Manila. It is this variety of outsourced, globalized labor that led some economists to optimistically sketch a "services-led development" model for countries like India in the 1990s and 2000s. But far more common than this relatively skilled labor pool is a different, more plebeian variety: the low-productivity work, overwhelmingly informal, casual, and irregular, that has come to define the social landscapes of poor-world cities -this informal work is effectively a dead end for surplus workers. The casual work ubiquitous in the poor world does not represent a cure to mass unemployment, but instead a *mass underemployment*.

Thrown off by agriculture and industry, never fully occupied by service work, the economic problem of superfluous labor soon becomes a social one. Unoccupied and discontented, these men are the ideal destabilizers of Third World societies.

The main "release valve" for the worsening economic situations of poor countries has been **migration** to better shores. As expatriate workers went abroad for

higher wages, the remittances they sent back home became lifelines for entire economies.

The global economic situation has changed: the classic "flying geese" model of industrialization, which posits that manufacturing will spread to any labor-abundant economy where goods can be made more cheaply—implying an international "queue" for industrialization—may no longer hold. Each wave of industrialization has been weaker than the last: possible factors include heightened global competition, with contemporary countries having less control over their home markets than did successful industrializers.

But poor societies today are also quite different from previous late industrializers. South Korea in 1960 or China in 1980 were largely agrarian societies, with vast peasantries ("full of potential energy, waiting to be released," as Perry Anderson has written) under uncontested rule by flawed but coherent coalitions of developmental elites. Their initial success was a product of high state capacity even at low levels of income. That the East Asian industrializers were able to sustain this success even as conditions changed, with the tactics of their industrial policies shifting—a change not seen in Latin America when import-substitution began to falter—reflects highly pragmatic and strategic developmental coalitions.

Can these conditions be replicated in the poor world today? Ultimately this is a question not just of economics, but of political economy: whether countries can replicate the elite coalitions seen in cases of rapid movement into high-income status—coalitions that can negotiate the sort of intertemporal bargains needed to make necessary investments, and thus sacrifices, for durable economic development. The challenge, for these relative success stories, or potential future ones like Bangladesh, is not necessarily impoverishment, but the *middle-income trap* associated with once-thriving economies like Argentina or Turkey. Long sojourns in the middle-income trap have led to the entrenchment of large firms or elite groups oriented around unproductive rent-seeking—actors with little real interest in development.

Their states no longer show much autonomy from these rentier elites, and little power over them regardless. Their economic trajectories converge on what Alex Hochuli has called "Brazilianization," a state of being "modern but not modern enough": relative stagnation at a middling level of income, with rising informality, rentierism, and inequality, a decomplexifying economy dependent on commodities, and an elite increasingly sequestered away from its own population.

This picture is darkened further by evidence of weakening state capacity and, in many places, a faltering state monopoly on violence. Most poor countries have shown no ability to challenge growing crime and violence.

Slum societies, deprived of the social self-regulation provided by traditional communities, often prove ungovernable in a way that peasant societies were not.

The degradation of social order and state legitimacy over the last decades in these societies is obvious to any observer.

In their gradual loss of state capacity, these states have not been aided by a consensus among Western development experts that, in the historian Idrissa's words, asks "not about how to strengthen the state, but how to further debilitate it," and which focuses inordinately on small-scale interventions—like randomized controlled trials (RCTs) that can be carried out by nongovernmental organizations and academic research teams—*rather than more challenging and locally sensitive questions of elite coordination and political economy.*

Instability, violence, and the loss of state capacity can poison even the most hopeful attempts at development.

Iin the coming decades, two headwinds—the first ecological, the second demographic—are likely to worsen the outlook for global development further.

Stagnant development in most of the poor world, ecological crisis, declining populations in the developed world, and growing populations in the worst-off places—what will this explosive mixture yield? Likely is an ever-growing phenomenon of **mass migration**, with the various immigration crises of the 2010s, and the attendant political backlashes to them, only presaging what is to come. This future is one of barbed wire, border fences, and migrant detention facilities.

There is simply no way to reduce the massive demand for migration opportunities without a return to real global development. But even successful population transfers—which will occur, in one way or another—will only partially compensate for the failure of the global economic system to meaningfully develop the poorest parts of the world.

What then, given the concurrent necessity and impossibility of industrialization in the poor world, particularly in Africa? The reality is that Western elites do not have an answer. The intellectual exhaustion of the elite "development community" is hard to fathom. In its upper echelons, those who still believe in the hoary orthodoxies of past decades—free trade, democratization, the extraordinary importance of what are nebulously referred to as "inclusive institutions"—coexist uneasily with more humble types who will admit, in private, that they have no real answer at all.

A new framework for development—ambitious and visionary on the one hand, but realistically grounded on the other—is direly needed, with a scope including both the poor world and the rich. This will require much work at national levels in poor countries. At a minimum, it will necessitate the displacement of extractive rentiers by new coalitions of development-oriented elites; conscious attempts to rebuild state capacity and reduce the outsourcing of governance to foreign institutions; land reform and agricultural modernization with an eye toward self-sufficiency in food; and the reestablishment of order, by improving damaged social fabrics and restoring state monopolies on violence, perhaps through symbolic national refoundings. ignificant improvement of international

transit infrastructure to address geographic hurdles; the improvement of bureaucratic capabilities, which will demand not only organizational reform but also deliberate cultural reformations; mass health and education programs, similar to those that made the Chinese labor pool so potent at the dawn of its industrialization; and the pursuit of conscious and focused industrial policies that improve on past approaches, from multilateral collaborations (perhaps an OPEC for rare earth metals) to the use of resource leverage to industrialize up the value chain, as with Indonesia's stipulation that all nickel exports be processed within the country—all these will be needed too. Certainly, such an agenda would be ambitious; it would require at least a spurning of many Western development experts, and perhaps even a strategic withdrawal from parts of the global system. But however demanding it may seem, it is fundamentally similar to the programs pursued by the great modernizers of the past—from Muhammad Ali Pasha or Bismarck in the nineteenth century to Atatürk and Deng Xiaoping in the twentieth.

Yet even these changes will come to nothing if they occur within the current world order: the core must change, and not just the periphery.

As crisis adds to crisis, a new golden age of global development seems like a distant prospect. The requisite structural reforms, national and international, may bend the existing arrangements to the point of breaking, and thus prove uncompelling to the wardens of our fissured earth—more comfortable wandering from crisis to crisis, dispensing short-term curatives to prevent the bottom from falling out. If it represents something fanciful and "unrealistic," seeking to redeem a grim assessment of the global situation by grafting a flight of hope onto its tail, then perhaps this is necessary: taking a purely realistic view of the situation, like gazing into the eyes of the Medusa, would simply turn us to stone.

Oks (2023) The Long, Slow Death of Global Development (pdf)

Noah Smithon Oks and Williams

It seems extremely clear to me, witnessing the abundance of success stories, that global development has *not* been dying any sort of death — long, slow, or otherwise.

The Oks & Williams article has a tendency to skip back and forth between some of these different questions, so that despite the authors' good-faith attempts to weave disparate points into a cohesive thesis, it can be difficult to isolate what their theses are. But basically, I think they're making three claims:

1. They're telling a story about the history of development, arguing that 1950-1980 was the peak, and recent decades have been much worse.

2. They're offering a theory about the mechanisms of development, arguing that industrialization is no longer a viable path for poor countries.

3. They're making a prediction about the future of development, arguing that there are significant headwinds that will slow poor countries' growth.

Any account that claims that development has been dying a long, slow death needs to come to grips with the fact that poor-country catch-up growth was basically nonexistent in the postwar decades, but has been a fact of life in the 21st century so far. This accelerating poor-country growth was accompanied by massive poverty reduction.

Oks and Williams are on very shaky ground when they claim that the postwar decades were the golden era of global development. If global development has ever had any sort of a golden age, it has been the last three decades, not the postwar years.

As I see it, development was always very difficult, unreliable, and uneven. But it has been a little less difficult, unreliable, and uneven in recent decades than it ever was before. Development's story has not been that of a fall from grace, but of a slow, fitful acceleration.

Automation — represented by rapid total factor productivity growth in manufacturing — actually helps poor countries industrialize, even though it does the opposite for rich countries.

It might be that the world can't all industrialize at the same time — that some countries naturally tend to specialize in being natural resource exporters, selling energy and minerals and food to everyone else, even as some other countries join the ranks of the manufacturers. This is, in fact, the upshot of the economic geography model of Krugman, Fujita and Venables, when applied to global trade networks and global development. In that model, global regions industrialize one after another, with a shrinking "periphery" region selling natural resources to the rest.

Now that China's industrialization is slowing down, other regions could get their chance.

Another potential big factor that Oks and Williams don't discuss, which is decoupling. The IMF is worried that an economic rift between China and the developed democracies will make it harder for poor countries to sell their products, because they'll have to choose one market or the other.

The proper perspective here, I think, is to realize that economic development was always hard, and always slow, and always uneven and uncertain.

Noah Smith (2023) Economic development is doing OK

Ken Opalo on Oks and Williams

It's true that the field of international development is not working as it ought to. Too much time and resources get wasted on faddist navel-gazing instead of serious investments in knowledge production and policy focus on structural change. Policymakers in donor agencies and developing countries are too easily

distracted by the next shiny thing (including ill-suited claims of rigor). Due to the over-reliance on "apolitical" foreign expertise with no skin in the game, much of development thinking ends up erroneously assuming that poor countries are poor because their policymakers/politicians are dumb/autocratic/corrupt. Consequently, many low-hanging potential wins get neglected simply because they are boring or don't fit within the orthodoxy espoused by experts.

That said, it is simply not true that there's been nothing but four decades of stagnation or decline in developing countries as alleged by Oks and Williams. Just because structural economic change doesn't get much airtime in Western academic/practitioner circles does not mean that it is not happening. The last 30 years have seen significant improvements in the developmental outcomes in many low-income countries, including in Africa. From infrastructure, to education attainment, to life expectancy, the last three decades have witnessed real economic change in most African states.

Before the disruptions caused by the Covid-19 pandemic, Africa as a region clocked 25 years of uninterrupted economic growth.

I emphasize these facts because it is absolutely important that African policymakers internalize the right lessons from the region's economic history over the last 60 years. As Thandika Mkandawire and Morten Jerven remind us, the narratives we tell ourselves about economic history matter. A sweeping dismissal of the gains of the last four decades is a recipe for failing to appreciate the region's economic successes and to build upon them. Indeed, it is the failure to learn the right lessons from economic history that fuels the intellectually anemic and inherently whimsical approach to international development that the authors rightly critique in their piece. The idea of perpetual stagnation in Africa (and elsewhere in the developing world) is a myth that needs to be put to rest.

The (relatively) high population growth rates in African countries have masked the impressive growth rates between 1960-1980 and 1995-present.

The crises over the long decade between 1980-1995 were especially destructive was because they could not have come at a worse time. African countries were barely 20 years old, and still very much trying to figure themselves out. 40 years later, things are different.

While weak states still dot the region and nearly all states struggle to project power throughout their territories, it is also true that the typical African state is a lot more consolidated today than it was in 1980. That counts for something. More importantly, it means that the past will not be that good of a guide on how African states will respond to current and future crises.

Transformational economic growth and development are possible in Africa. Contrary to popular belief, the crises between 1980-1995 are not the definitive elements of the region's economic history. There was real growth before (1960-1980) and after (1995-present) that produced tangible developmental outcomes. A narrative of stagnation simply does not match the facts. In the same vein,

highlighting the blindspots of global development need not lead to unnecessary catastrophizing about Africa's future economic prospects.

Opalo (2023) Is 'Global Development' dead?

7.2 Globalization

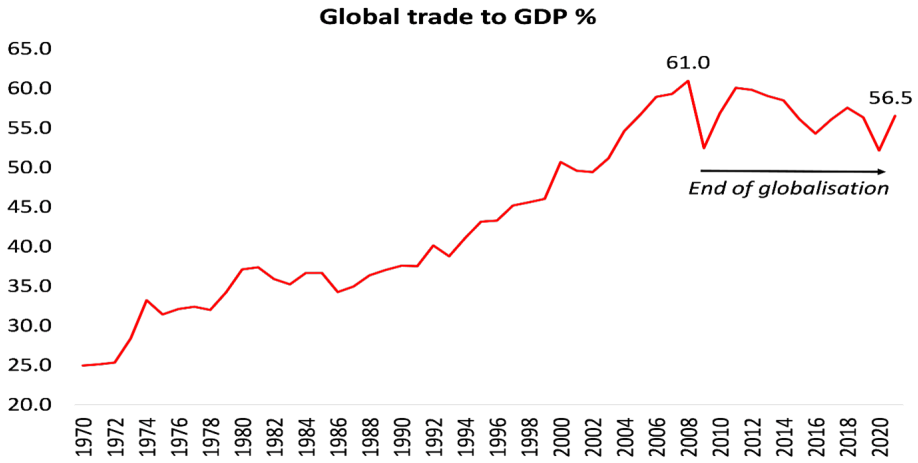
Reinert

US historian Richard Goldthwaite shows the historical importance of the dichotomy between raw materials and manufacturing in a recent book: what is generally seen as Europe's 'commercial revolution', Goldthwaite argues, was in fact a process of import substitution—manufactured goods, that had previously been imported in the Levant, started to be produced in Europe from the 12th century onwards (Goldthwaite 2009, 6–8). I shall argue that this extremely important distinction—between raw materials subject to diminishing returns, monoculture and perfect competition on the one hand, and manufactured goods subject to increasing returns and a large division of labour on the other—was lost in the post-WW II period. Only nations that contin- ued their industrialization strategies—like India and China, starting from the late 1940s—have been successful during the latest process of globalization. If India and China are removed from the sample, globalization is a shambles, even more so in terms of real wages than in terms of GDP per capita (because wages as a percentage of GDP have been reduced across the board).

Reinert (2011) The terrible simplifiers (pdf)](pdf/Reinert_2011_The_terrible_simplifiers.pdf)

Roberts

'Globalisation' of trade and finance over the last 40 years under the hegemony of the US is over.



The general rate of profit was 19.3% in the 'golden age' of US supremacy in the 1950s and 1960s; but then fell to an average 15.4% in the 1970s; the neoliberal recovery (coinciding with a new globalisation wave), pushed that rate back up to 16.2% in the 1990s. But in the two decades of this century the average rate dropped to just 14.3% – an historic low. The US economic base has been seriously debilitated. Now there is what is described as 'geopolitical fragmentation' ie the rise of alternative blocs attempting to break with the imperialist bloc led by the US. Capitalism is fragmenting as it is inherently incapable of international unity and global planning.

Roberts (2023) Polycrisis again

7.3 Structural Reforms

Braun on Draghi's 'Refrorm Thesis'

Draghi was a structural reformer avant la lettre: He uses the term "reform" exactly as it would come to be used in "structural reforms". Except that the concept didn't exist at the time.

Draghi's thesis fully articulates the theory that came to bring us structural reforms: A planner opting for short-run stimulus will never reach the optimal long-run path. By contrast, enforcing optimum long-run policies today will *not* have negative short-run consequences.

Noting that "the common finding is a positive relationship between real wages and employment", Draghi seeks to refute that finding, describing it an artifact of faulty methodological choices.

Structural reformers *must* reject the idea of a positive wage-employment relationship because SRs are supposed to boost employment precisely via lower real wages.

Braun - Twitter Thread on Mario Draghi's Thesis

Tooze on Draghi/Yellen new assignments

It would be absurd to blame either Draghi or Yellen personally for the sequence of shifts and shocks that has destabilized capitalist democracies since the 1990s or the crisis of confidence these have triggered among centrist liberals. But as people of huge influence and as representatives of a class of experts who have ruled the roost for the last 30 years, they can hardly plead innocence either. It was on their watch that growth slowed, inequality between social classes and regions became ever deeper, and the risk of inflation tipped into that of deflation. It was on their watch that the financial system was allowed to become a flywheel of mass destruction. It was on their watch that the risks of climate change and pandemic threats went unaddressed.

If broad-based growth cannot be restarted, the implications are alarming.

Whereas the market revolutionaries of the 1970s and '80s were radicals, squashing the last bastions of the old left and bulldozing organized labor out of the way, Draghi and Yellen came to the fore in the 1990s as managers of what is now known as the Great Moderation.

Inheritors of the market revolution, committed to managing and improving the status quo, Draghi's and Yellen's march through the institutions has been glorious, but their careers have also been defined by constant adjustment to political and economic shocks that they did not foresee and could not control. These shocks have driven Yellen and Draghi to explore the political and economic boundaries of technocratic power.

At MIT and Yale in the 1970s, they imbibed what was known as the neoclassical synthesis. The central idea was that though the microeconomics of markets were important, markets would function properly only so long as the macroeconomic environment was set correctly. Keynesianism and market economics were not opposites but complements.

In the 1980s, Yellen played an important part in shaping the further development of the neoclassical synthesis known as New Keynesian economics. Working alongside the likes of Joseph Stiglitz and George Akerlof, she mapped how labor market imperfections could give rise to macroeconomic problems. Those rigidities in wages and prices, in turn, also enabled macroeconomic policy to work. It was because markets were slow to adjust that unexpected movements in interest rates, taxes, and government spending could have real effects.

Draghi's work at MIT was less intellectually generative than Yellen's. But his dissertation is nevertheless revealing. It includes a chapter in which he describes how planners trying to manage an economy subject to short-run fluctuation are more successful if they focus on long-run goals. Long-range strategy, regardless of short-term cost, will do better than a hectic effort to optimize at every moment.

Though they owe little to the Chicago school, it does not follow that Draghi and Yellen were not exponents of neoliberalism. On the contrary: They were strong advocates of markets. Competition and properly designed incentives were the recipe for productivity and growth.

In the world economy, they favored the free capital movement and flexible exchange rates that defined the so-called Washington Consensus of the 1990s. It was Rudiger Dornbusch, the pope of international macroeconomics at MIT and one of Draghi's chief mentors, who described the project of his generation as being the taming of "democratic money." In the wake of the collapse of the Bretton Woods financial order and the U.S. dollar's gold peg, the chief enemies of good economic governance were shortsighted trade unions pushing for higher wages and vote-chasing politicians. Once trade unions were curbed and politicians confined to their proper tasks, Friedmanite monetarists hoped that prices could be stabilized by mechanical monetary rules.

But by the early 1980s, that had proved naive. For the MIT crowd, what keeping money safe from democracy amounted to was placing it under the control of competent experts credibly committed to providing markets with the stable framework they needed. The independent central bank was their institutional bastion.

The global financial order developed by economic elites—from the 19th-century gold standard to the gold-pegged dollar of the Bretton Woods system to the worldwide preoccupation with independent central banks after Bretton Woods dissolved—has always involved imposing constraints on policymakers. In the 1980s, devices such as exchange rate pegs were all the rage in Asia as well as Europe for signaling self-discipline to financial markets.

For all their inside status and expertise, neither Yellen nor Draghi gave any public sign of anticipating the crisis that was to come. The same was true for the vast majority of their cohort, whether MIT or Chicago. The scale of the systemic risk posed by the financial system of the advanced economies simply did not register until it was too late.

The consistent failure to deliver adequate fiscal policy responses to the crisis after 2008 went against all the preconceptions of 1970s MIT-style macroeconomics.

> Where were the spendthrift politicians when you needed them? The fiscal undershoot by the Obama administration could perhaps be explained by miscalculation and Republican partisanship. But the fact that a centrist majority in the heart of Europe, faced with dangerous populist challenges from the left and right, would choose to die on the hill of budget balance was not part of the plan.

It was up to the ECB to act. In 2015, to the horror of German conservatives, Draghi finally launched a QE program. This was a technical economic measure. But it had spectacular political effects. It enabled the European Council to play hardball with the radical left-wing government in Greece without causing the bond markets to panic. One might say it marked the Americanization of the ECB.

Seven years on from the collapse of Lehman Brothers, a majority on the Fed board was swinging toward tightening. The point was not so much that the U.S. economy needed restraining as that they were deeply uncomfortable with interest rates remaining at zero. It stoked speculation in financial markets and gave the Fed nowhere to go if it needed to counter a downturn. Negative interest rates along the lines adopted by Japan were not something that the Fed wanted to contemplate.

The basic framework of 1970s macroeconomics that framed Draghi and Yellen's training and outlook, like that of the rest of their cohort, was that properly structured markets would take care of growth. Well-regulated financial systems were stable. The chief priority for economists was to educate and restrain politicians to ensure that inflation remained in check and public debts were sustainable.

Financial instability is a mortal risk. For now, it is being held at bay. But the world saw as recently as March 2020 how rapidly even the largest financial market—the market for U.S. Treasurys—can be destabilized. To tame that risk, the Fed and the ECB, under Yellen's and Draghi's non-economist successors—Jerome Powell and Christine Lagarde, respectively—have adopted an astonishingly undogmatic and expansive approach to stabilization.

The Italian political class is abdicating in favor of a retired, unelected official in his 70s.

Faced with a decisive historical challenge—restarting growth after decades of stagnation—Italy's political class has chosen to delegate executive power to someone who has never been elected to office. It is the ultimate victory of technocracy but also a do-or-die challenge.

The truly strategic challenge facing progressive politics in the United States as in Europe is to find a new model of inclusive and environmentally sustainable economic growth

In the 1990s, you didn't need to be a naive exponent of the post-Cold War end-of-history argument to think that the direction of travel for global politics was clear. The future belonged to globalization and more-or-less regulated markets. The pace was set by the United States. That enabled technocratic governments to be organized around a division between immediate action and long-term payoff. That was the trade-off that Draghi evaluated in his MIT Ph.D. in the 1970s. The drama of Draghi and Yellen's final act is that for both of them, and not just for personal reasons, the trade-off is no longer so clear-cut. If the short-term politics fail, the long-term game may not be winnable at all. "Whatever it takes" has never meant more than it does today.

Tooze (2021) Draghi/Yellen - Can they control what comes next?

7.3.1 Structural Transformation in the Global South

Yadu

There is an increasing realization that the nature and pattern of structural transformation that unfolded in the global North might not be replicable in the global South.

The possibilities of attainment of a North-style structural transformation remains bleak in the contemporary global South. This is majorly because the socio-economic and political context which facilitated the process of structural transformation of the economies in the global North is **no longer available to the global South**. The process in the North was, to a large extent, fostered by colonialism which allowed these economies to undertake expropriation and extraction of resources, without much concern for ecological limits, as well as to transfer a proportion of their population to the newly found lands in the temperate regions. Given the significant changes in the structure of capitalism now as

compared to the earlier phase, it is worthwhile to investigate the possibilities of the global South experiencing the envisaged path of structural transformation.

There is a need to re-examine the narrative of structural transformation as a universal phenomenon which is expected to unfold in a linear way across time and space. The received wisdom in development economics largely neglects the political and historical roots of capitalist development, and remains rather incomprehensive in its understanding of the contemporary nature of transformation taking place in the South due its fixation of gaze from a North-centric lens. Analyzing the particular nature of the processes of development specific to the South brings its own set of challenges that need to be understood in their own subjective context. The way forward is to break away from the North-centric notions of progress and change, and reverse the gaze, to formulate a framework that reflects on the structural conditions and the realities of the global South from their vantage point.

Yadu (2023) Structural Transformation: Then and Now

7.4 Industrial Policy

7.4.1 Import Substitution

Irwin Abstract

In the 1950s, many economists believed that import substitution – policies to restrict imports of manufactured goods – was the best trade strategy to promote industrialization and economic growth in developing countries. By the mid-1960s, there was widespread disenchantment with the results of such policies, even among its proponents. This paper traces the rise and fall of import substitution as a development idea. Perhaps surprisingly, early advocates of import substitution were quite cautious in their support for the policy and were also among the first to question it based on evidence derived from country experiences.

Irwin (2020) THE RISE AND FALL OF IMPORT SUBSTITUTION (pdf) (pdf)

Smith on India

Why did import substitution fail? Chang and Studwell's answer would probably be that making things for the domestic market doesn't force companies to increase their productivity. It doesn't help them discover their comparative advantage relative to foreign companies. It doesn't push them to develop new products. It doesn't give them much of an incentive, or even much of an opportunity, to absorb foreign technologies. The domestic market is safe, familiar, and uncompetitive, and it's often possible to dominate it through political cronyism rather than through brutal technological competition.

Smith (2023) Can India industrialize?

7.4.2 Export-led Growth

Ha-Joon Chang

Industrial policy can work – sometimes spectacularly well – although it can also fail – sometimes miserably.

Picking on my emphasis on the importance of export performance as a performance indicator, I then talked about the critical importance of export policy, which requires not just free trade but a mixture of free trade, export promotion, and infant industry protection.

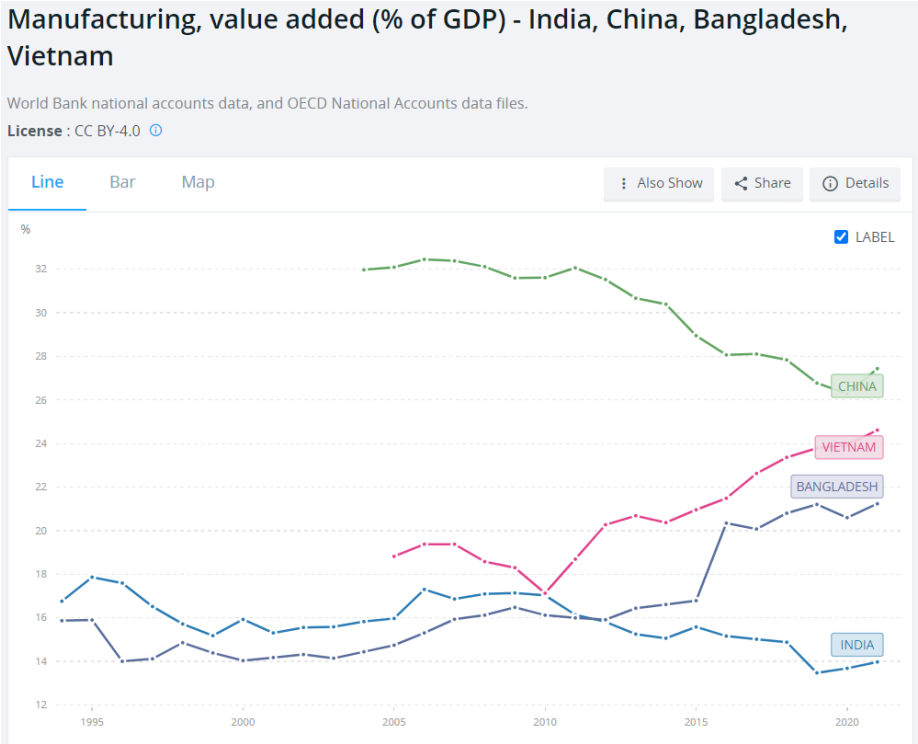
The debate, have focused too much on "grand" things like the Big Push, when much of real-life industrial policy has been about "boring" things, like getting the production scale right and providing export marketing services.

Appreciate how critical export is for the success of industrial policy, while [also] appreciate how export success also requires industrial policy.

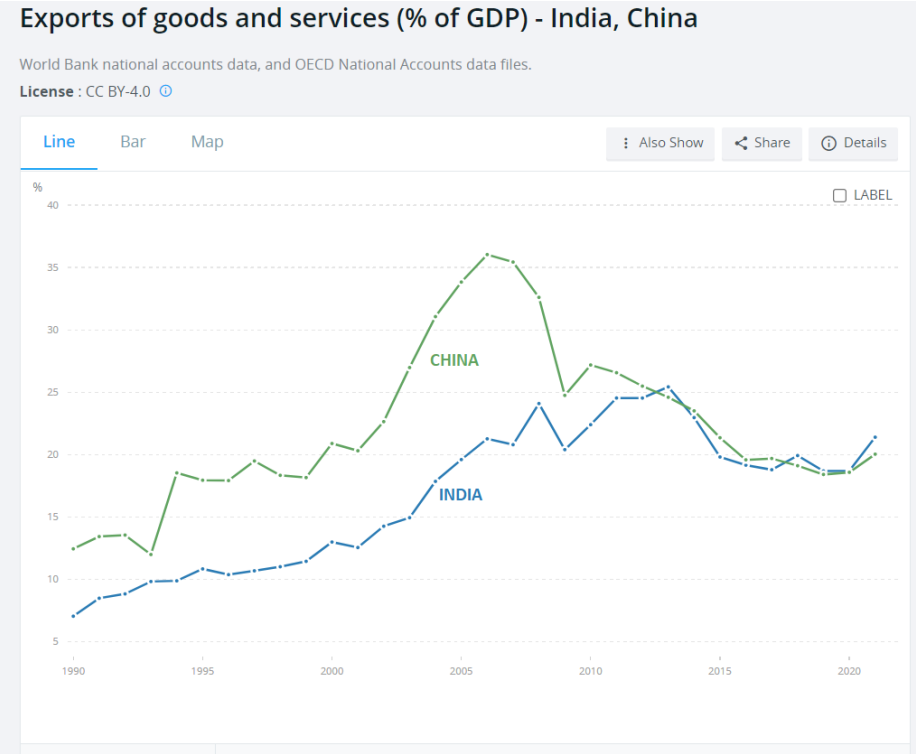
Ha-Joon Chang (2009) Industrial Policy: Can We Go Beyond an Unproductive Confrontation? (pdf)

Smith on India

India lags in manufacturing but does OK on exports The stereotype of India's economy is that it relies on services more than on manufacturing. That's actually pretty accurate; manufacturing is a smaller percent of the economy than Bangladesh or Vietnam, and the trend line is headed in the opposite direction:



But according to what I've been calling the "Chang-Studwell" theory of development — based on the book How Asia Works, any of Ha-Joon Chang's books, and this IMF paper — what matters most is not manufacturing per se, but exports. And I don't mean "net exports", i.e. trade surpluses vs. trade deficits — I simply mean the amount of stuff a country sells overseas. The basic idea is that exporting forces companies to raise their productivity levels and learn foreign technologies (by hiring foreigners, by maintaining overseas offices, or just by stealing intellectual property). In this theory, manufacturing is important simply because manufactured goods are easy to export, and because manufacturing industries have opportunities for rapid productivity growth.



And India actually does a pretty good job exporting — about as good as China, and as good or better than China in the 1990s.

Not much labor-intensive manufacturing in exports. Labor-intensive manufacturing is useful for generating employment, for moving poor people from farms to cities, and — at least, if you believe Ha-Joon Chang — for developing a widespread culture of manufacturing.

7.4.3 Service-led development

India's exports of services are 60% as large as its exports of goods. The thing about services is, we don't really know how well they contribute to development. Services have only really been exportable en masse for a short amount of time, thanks to the advent of the internet, so there isn't a long record of countries that exported a bunch of services.

Development runs on agglomeration effects — producers, suppliers, and customers all wanting to locate near each other — and services don't require nearly the same supply chains that manufacturing does. This means we might expect to see services generate a smaller local multiplier effect (sometimes called an "external multiplier"), leading to less urbanization and product diversification.

Harder to improve productivity in services than in manufacturing.

For service exports that are basically just local services beamed overseas by the magic of the internet — for example, India's famous call centers — there probably isn't as much room for rapid technological upgrading.

If you were an electronics maker or a carmaker in Singapore or South Korea or Poland back when those countries were poor, you just didn't have a huge safe domestic market to hide in. But if you're an Indian manufacturer right now, even though India is still poor, the domestic market is still so big that there's less incentive to take the icy plunge into the international waters. If you think this theory is right, then India will need to work especially hard to push its companies to make things for the world instead of just for India.

Fortunately, the Modi administration may have (belatedly) gotten this message. Last year he announced a new slogan: "Make for the world." Presumably this means a shift from production incentives to export incentives.

Smith (2023) Can India industrialize?

?

Cherif (2019) The Return of Industrial Policy (pdf)

7.4.4 FDI Regulation

Chang Abstract

Based on a historical survey of the experiences of the USA, the EU member states and the East Asian economies, the paper argues that during their early stages of development, now- developed countries systematically discriminated between domestic and foreign investors in their industrial policy. They have used a range of instruments to build up national industry. They included: limits on ownership; performance requirements on exports, technology transfer or local procurement; insistence on joint ventures with local firms; and barriers to 'brownfield investments' through mergers and acquisitions. On the basis of this, the paper argues that a multilateral investment agreement (MIA) at the WTO, founded on principle of national treatment, is likely to harm the developing countries' prospects for development. Our historical survey shows that, only when domestic industry has reached a certain level of sophistication, complexity, and competitiveness do the benefits of non-discrimination and liberalisation appear to outweigh the costs. As a result, countries generally move towards a greater degree of non- discrimination and liberalisation as they develop. In that sense, contrary to the claims of the demandeurs of the MIA non-discrimination is better seen as an outcome of development, not a cause

Chang (2003) Regulation of FDI in historical perspective (pdf)

7.4.5 FDI

Smith on Chang/Studwell

At this point, let's take a moment to talk about why Ha-Joon Chang and some other industrial policy fans think that FDI is not the basis of a sound development strategy. Chang has gone to great lengths to show that today's rich countries — the U.S., Japan, and so on — restricted or even banned FDI during their early stages of development. But that doesn't tell us why it's bad, or even if it's bad; the rich countries could have succeeded in spite of this policy. Part of Chang's distaste for FDI comes from the fact that a lot of it is actually just foreign companies acquiring local ones, rather than building new factories; this could result in the foreign companies stunting the growth of the local ones, whereas if they had remained independent they could have risen to become competitors. Also, some FDI goes into real estate, which often just pumps up property values unhelpfully and may set economies up for bubbles and crashes.

But another reason the industrialists are suspicious of FDI is that even "greenfield" FDI — i.e., when a foreign company comes in and builds its own factory in your country — might crowd out domestic companies. If all the good engineers and managers go to work for foreign companies, it could starve local startups of the resources they need to grow. And since foreign companies are likely to reserve the highest-value-added parts of the supply chain (design, high-tech, branding, marketing, etc.) for their home countries, having a manufacturing sector dominated by these multinationals could prevent a company from developing its own globally competitive brands and technologies — like an apprentice whose master will never let him learn his most secret tricks of the trade.

Poland and Malaysia may now be running into this problem.

McKinsey cites Poland's need to develop or acquire strong brands in order to catch up with West Europe. The failure of Malaysia's attempt to build domestic champions is worrying.

And yet I see two responses to this. The first is: Do we really care? Poland and Malaysia may not be as rich as Germany or Korea, but they've definitely escaped poverty. Countries like Bangladesh or Vietnam or Ghana or even Mexico would kill to have a per capita GDP of $30,000. That's about the GDP of the U.S. in the early 1980s. Is it really fair to call that level of development a "middle income trap"? If you're a poor country, and you have a reliable, dependable way of getting as rich as the U.S. was in the early 1980s, dammit, you take it. You don't worry about whether that strategy will eventually make it harder to get as rich as the U.S. of 2023.

Because developing the South Korean way, by building a bunch of world-beating high-tech manufacturing companies from scratch, is incredibly hard. An FDI-centric strategy, on the other hand, is simple and straightforward, almost cookie-cutter — you give all your people a high school education, you build some roads and electric power lines and sewage lines, you designate some Special Economic Zones, and you give foreign companies big tax incentives and investment incentives and regulatory incentives to come in and hire your plentiful low-wage workers to make electronics and automotive goods and other complex products

for export. Voila! No need to build the next Samsung or the next Hyundai; the existing Samsung and Hyundai will do nicely.

This is a bit similar in spirit to the way Tennessee, Kentucky, and Alabama lured U.S. automakers away from high-wage unionized northern states with the promise of cheaper non-union labor. You don't see Tennessee or those other states becoming home to the new Detroit; all the big car brands are still headquartered elsewhere. Eventually this strategy ran out of gas, but it worked for a while.

(Comments:) In the context of the EU, I feel like Poland has been helped a lot by keeping its own currency instead of adopting the Euro.

Smith (2023) Poland/Malaysia FDI growth model

7.5 TechFare

Bhagat

Big Tech has long thrived on regulatory evasion and the exploitation of legal grey areas.

In this literature, then, the tendency is to assume that it is an absence of state intervention that has underpinned the technology industry's growing economic (and political) power. With our conception of techfare, however, we aim to push beyond these explorations of how Big Tech evades state control. Instead of focusing on state absences, we set out to highlight an equally significant dynamic: how the technology industry has become deeply entwined with the activities of the neoliberal state.

As is well known, neoliberalism has yielded specific forms of state intervention to discipline and normalize the surplus population and to regulate social insecurity. Filling the void left by the retrenchment of social and welfare spending, these forms include Jamie Peck's workfare, Susanne Soederberg's debtfare, and Loïc Wacquant's prisonfare. As the technology industry has inserted itself more deeply into consumer credit markets and surveillance activities, it has augmented both debtfare (which normalizes and encourages reliance on private sources of credit to augment wages and regulate social insecurity) and prisonfare (which criminalizes poverty through policies that extend the reach of the police, courts, jails, and prisons). And, as the two vignettes below show, it has done so in ways that not only support the ongoing efforts of the neoliberal state, but that also underpin the growth and profitability of Big Tech itself.

The penetration of Big Tech into the realm of consumer finance has clear parallels with what Gabor and Brooks (2017) call the fintech-philanthropy-development nexus. Gabor and Brooks argue that fintech has accelerated the financial inclusion of the poor and enhanced financial institutions' ability 'to bank the unbanked. Big Tech, too, is adopting these logics of financial inclu-

sion: the technology giants have vast stores of user data and trusting consumer bases that have allowed them to extend financial services globally. For instance, the total alternative credit model—a combination of fintech and lending by Big Tech companies—reached $800 billion in 2019. In Asia, Africa, and Latin America the presence of Big Tech credit grew rapidly, coinciding with the decline of fintech credit volumes due to market regulation in China.

Our snapshots surrounding consumer finance and surveillance act as central examples of arenas where techfare augments extant modes of neoliberal regulation in the face of social insecurity. In aligning with debtfare, we are interested in how the vacuum left by welfare retrenchment and the decline of traditional financial actors has paved the way for Big Tech to become a player in consumer finance through new innovations on payday loans, credit cards, and other lending services that explicitly target low-income earners. In relation to prisonfare, we also highlight how Big Tech profits off of surveillance by extending the carceral state to the level of the neighbourhood and the household. Facial recognition is often seen as a public safety tool. But its potential to erode privacy and criminalize vast numbers of people while generating both revenue and data for Big Tech is an important direction for future research.

Bhagat (2021) The Techfare State: The 'New' Face of Neoliberal State Regulation

7.6 Market-based Development Finance in Crisis

Tooze

To treat the news from Ghana [On debt default des. 2022] as "just another predictable crisis", is to trivialize and to fail to grasp the significance of the current moment.

Ghana is an important African success story. In recent times it has been the site of sustained efforts to improve labour practices and the terms of trade for peasant cocoa farmers. In 2020 its stress-free elections contrasted favorably to the democratic anxiety in the United States. Ghana has been praised for its efforts to extend health insurance to 70 percent of the population, topped up with cash benefits for the poorest. Accra boasts a vibrant fashion and design culture. The interior is touted as destination for adventurous trekking tourists.

An ample flow of money was key to this success story. And not just the volume of funding mattered, but how it flowed.

Up to the Millenium, the main form of lending to Africa was concessional bilateral lending by Paris Club members. That ended in the early 2000s with the Heavily Indebted Poor Countries Initiative backed by the International Monetary Fund and World Bank. That wrote down a huge slice of unpayable debt.

In the aftermath, new bilateral concessional lending by the Paris group of creditor countries was reduced to a trickle. Instead, led by the United States they have provided support above all in the form of grants and development assistance. This is less encumbering than concessional loans, but it is also restricted in volume. In a substantial economy like Ghana, let alone an economy the size of Nigeria, grants and development assistance are unlikely ever to achieve transformational scale.

Meanwhile, lending by the World Bank and other Multilateral Development Banks has provided a relatively steady flow of funding. But the big new player in the development finance scene is China. At its peak in 2017 Chinese development lending was larger than that of the World Bank. China's large-scale funding met much suspicion and has now run out of stream. Much of it has had to be renegotiated with stressed borrowers. Which leaves the question. What is the development vision that "the West" actually offers to the developing world? Over the last twenty years, insofar as the West has had a model of development funding, it has been one of public-private partnership: develop the financial infrastructure of borrowing countries so as to enable them to attract funds from private lenders on global markets.

Since 2008 the surge in non-Chinese private lending dwarfs all other funding flows to Africa. In part it was driven by genuine development on the part of the borrowers. But, in the era of quantitative easing, it was also impelled by the search for yield in frontier markets. As QE is replaced by QT and interest rates in the US rise sharply, that funding model that is now in question.

The Ghana crisis matters beyond its immediate impact, because it was the poster child for this model of private finance.

The situation in Ghana is bad, but it is by no means alone. Whereas in 2008 the African continent was largely insulated from the shock of the global banking crisis, it is now, as a result of being more integrated into the global economy, feeling the pinch from global movements in prices and interest rates.

When the headlines announce that Ethiopia, Kenya and Ghana are all in trouble, that could be read as a series of national stories. But it is more than that. General narratives are fashioned out of particular cases and over the last 15 years Kenya, Ethiopia and Ghana have been amongst the most important success stories of the African continent. The current rash of crises puts that entire narrative in play.

> What every vision of sustainable development implies, is a giant transformation in political economy, a combined social and political transformation, centered on capital markets and the tax state. At other times and in other places, this might have been seen as the blueprint for a bourgeois revolution. Such a revolution entails the development of property right and markets, but public finances too are a critical arena of transformation and struggle.

[Tooze (2022) Chartbook #181: Finance and the polycrisis (6): Africa's debt crisis](https://adamtooze.substack.com/p/finance-and-the-polycrisis-6-africas

7.7 How Asia Works

Smith on Studwell

I like How Asia Works because it tells a coherent story about how countries get rich. Basically, Studwell says it's a three-step process:

1. Land reform: Forcibly buy up tenant farms from landlords and give it to the tenants; this increases farm productivity per unit of land area, gives rural people more to do, provides small farmers with some startup capital should they choose to sell their farms and move to town, and pushes landlords themselves to move to cities and use their talents to start more productive businesses.

2. Export discipline: Push companies to export instead of just selling domestically. Cut off support to companies that try to export and fail. This will push companies to increase productivity in order to compete in world markets, especially by learning foreign technology.

3. Financial control: Push banks to support exporters instead of putting their money into real estate bubbles and the like.

It's very difficult to test whether this model really works, or whether the successful development of countries like South Korea and Taiwan was due to something else. We can look at evidence for pieces of the theory — for example, the idea that small farms tend to be more productive than medium-sized ones seems fairly well-supported in the data, and there's also some evidence that pushing companies to export does cause them to raise their productivity.

But Studwell's model is so complex that it's hard to test all the pieces together. And if you need all the pieces in place — for example, if export promotion doesn't work without the "discipline" of winding up failing firms, or if land reform fails if you don't allow farmers to sell their land, or if export discipline itself doesn't work without land reform — then testing the pieces individually won't give us the answers we want.

Because it's so hard to test, the theory serves less as a tried-and-true policy prescription and more as a launching point for ideas about how to manage a developing economy

Smith on Krugman, Fujita and Venables' *The Spatial Economy*

We might start to wonder if successful development policies simply determine countries' place in a queue. My longtime readers will also know that in addition to How Asia Works, I love Krugman, Fujita, and Venables' The Spatial Economy. And in the final section of that (highly technical) book, the authors

turn what was a humble theory of urbanization into a grand theory of global development. And the upshot of that grand theory is that countries have to basically wait in line to get rich. There's just no way for them to all hop on the rapid industrialization train all at once. Better policy can let you cut to the front of the line, but then the countries you cut in front of are out of luck.

This is a highly stylized, pretty speculative theory, which is even harder to prove than Studwell's. But it kinda-sorta fits the observed pattern in Asia — first Japan and Hong Kong and Singapore grew quickly, then Taiwan and South Korea, then China, now Vietnam and Indonesia. Malaysia and Thailand got a head start on China but then slowed down after the financial crisis of '97, while China accelerated — perhaps because China "cut in line" in front of the Southeast Asian tigers. But now, with China slowing down, perhaps Malaysia is back at the front of the line.

Anyway, this would be a depressing, fatalistic sort of world, where development is a zero-sum-game in the short term. Hopefully it's not true — I'd much rather believe in a Studwellian world where the right smart growth policies can boost lots of countries at once. But we may never know which is right.

Noah Smith on joe Studwell

Smith on Chang and Studwell

We don't really know how economic development happens, and to put too much faith in the Chang/Studwell story would be unwise.

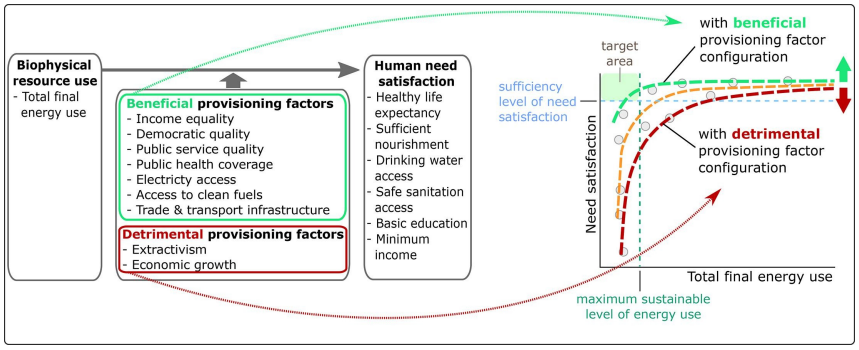
Smith (2021) Jamaica is doing OK Could it do better than OK?

7.8 Social Provisioning of Needs

Vogel Abstract

Meeting human needs at sustainable levels of energy use is fundamental for avoiding catastrophic climate change and securing the well-being of all people. In the current political-economic regime, no country does so. Here, we assess which socio-economic conditions might enable societies to satisfy human needs at low energy use, to reconcile human well-being with climate mitigation. Using a novel analytical framework alongside a novel multivariate regression-based moderation approach and data for 106 countries, we analyse how the relationship between energy use and six dimensions of human need satisfaction varies with a wide range of socio-economic factors relevant to the provisioning of goods and services ('provisioning factors'). We find that factors such as public service quality, income equality, democracy, and electricity access are associated with higher need satisfaction and lower energy requirements ('beneficial provisioning factors'). Conversely, extractivism and economic growth beyond moderate levels of affluence are associated with lower need satisfaction and greater energy requirements ('detrimental provisioning factors'). Our results suggest that im-

proving beneficial provisioning factors and abandoning detrimental ones could enable countries to provide sufficient need satisfaction at much lower, ecologically sustainable levels of energy use. However, as key pillars of the required changes in provisioning run contrary to the dominant political- economic regime, a broader transformation of the economic system may be required to prioritise, and orga nise provisioning for, the satisfaction of human needs at low energy use.



Vogel Memo

Our analytical framework conceptualises the provisioning of human needs satis faction in an Ends–Means spectrum. Our framework considers energy use as a means, and need satisfaction as an end, with provisioning factors as intermediaries that moderate the relationship between means and ends. We thus operationalise O'Neill et al.'s (2018) framework by reducing the sphere of biophysical resource use to energy use (for analytical focus), and reducing the sphere of human well-being to human need satisfaction (for analytical coherence). Our operation alisation of human need satisfaction follows Doyal and Gough's (1991) Theory of Human Need, reflecting a eudaimonic understanding of well- being as enabled by the satisfaction of human needs, which can be evaluated based on objective measures.

Only 29 countries (28%) in our sample reach sufficient levels in all need satisfaction dimensions assessed here (health, nutrition, drinking water access, safe sanitation, education, minimum income). Each of these need-satisfying countries uses at least double, many even quadruple, the 27 GJ/cap deemed the maximum level of energy use that could be globally rendered sustainable. Our bivariate regression analysis confirms that while energy use is significantly correlated with need satisfaction, high levels of energy use seem neither necessary nor particularly beneficial for need satisfaction. Whereas at low levels of energy use, need satisfaction steeply increases with energy use, need satisfaction improvements with additional energy use quickly diminish at moderate levels of energy use and virtually vanish at high levels of energy use.

High energy use alone is not sufficient to meet human needs. At low to moderate levels of energy use, there is a large spread in observed need satisfaction

outcomes. which cannot be explained by energy use alone.

Need satisfaction outcomes are statistically better explained when a relevant provisioning factor is included as an inter mediary that moderates the relationship between need satisfaction and energy use. Across multiple dimensions of human need, the relationship between need satisfaction and energy use varies significantly and sys tematically with the configuration of certain provisioning factors.

We distinguish three types of provisioning factors. *Beneficial provisioning factors* are associated with socio- ecologically beneficial performance (higher achievements in, and lower energy requirements of, human need satisfaction). Countries with high values of a beneficial provisioning factor tend to achieve higher levels of need satisfaction at a given level of energy use, and tend to reach a particular level of need satisfaction with lower levels of energy use, compared to countries with median values of the provisioning factor. *Detrimental provisioning factors* are associated with socio-ecologically detrimental performance (lower achievement in, and greater energy re quirements of, human need satisfaction). Countries with high values of a detrimental provisioning factor tend to exhibit lower need satisfaction at a given level of energy use, and tend to reach a particular level of need satisfaction only at higher levels of energy use, compared to countries with median values of the provisioning factor. Lastly, non-significant provisioning factors do not show significant interactions with the rela tionship between energy use and need satisfaction.

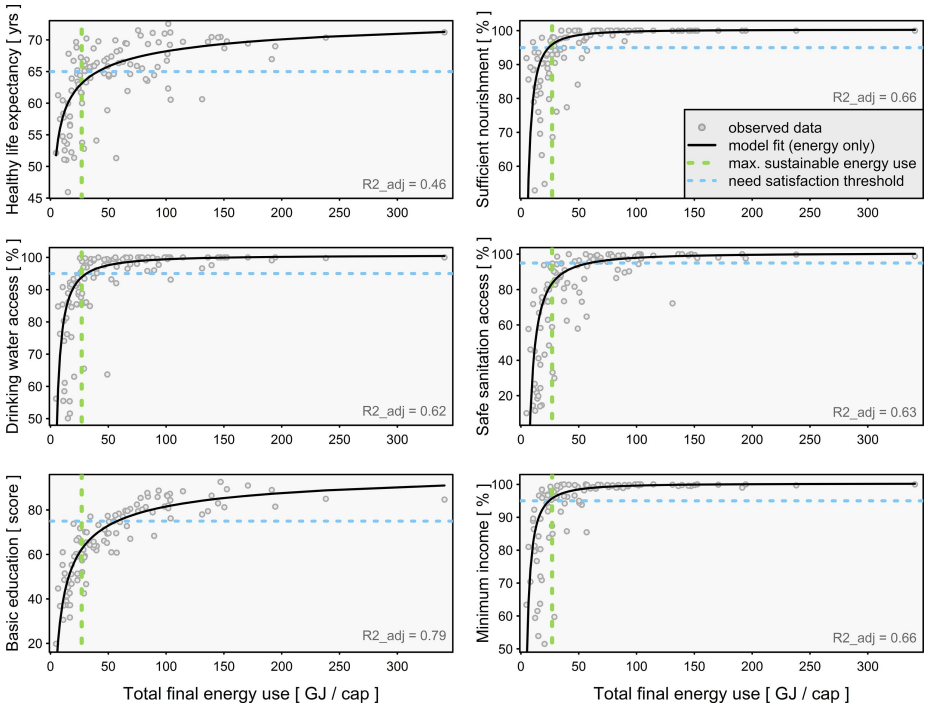


Figure: Most human needs are currently not sufficiently met within sustainable levels of energy use. Cross-country relationships between different need satisfaction variables (y) and total final energy use (x) are shown as black lines, with data shown as grey dots. The green dashed line illustrates the 27 GJ/cap deemed the maximum level of energy use that can globally be rendered sustainable. Thresholds for sufficient need satisfaction are shown by the dotted blue lines. R2_adj is the coefficient of determination, adjusted for the number of predictors.

Vogel (2021) Socio-economic conditions for satisfying human needs at low energy use: An international analysis of social provisioning (pdf)

7.9 MFD - Maximizing Finance for Development

Gabor

The World Bank video explains the process — formally termed the Cascade Approach — for turning everything into an asset class. The Cascade Approach offers a sequence of steps to diagnose why global investors are reluctant to finance development projects: first, identify reforms (regulatory or other policies) that improve the risk-return profile; if reforms are insufficient, then identify subsidies and guarantees to de-risk the project; if reforms, subsidies, and guarantees are still not enough, then opt for a fully public solution. This is a blueprint for promoting shadow markets in which bankable projects can be transformed into liquid securities ready for global institutional investors.

To achieve this, the mfd agenda envisages creating three new markets where they are currently missing: derivative, repo, and securitization markets. Foreign investors will need derivative markets where they can hedge currency risk if they are to hold local currency bonds, and repo markets where they can finance those securities in local currency. Furthermore, the World Bank will promote the development of securitization markets that can transform loans into tradable securities, thus leveraging its own limited resources.

The MFD agenda thus reimagines international development interventions as opportunities for global finance. Through multilateral development banks, global (shadow) banks will be able to influence, if not altogether shape, the terms on which poor countries join the global supply of securities.

Poor countries will have less room to define what is a “bankable” project and will have to accept large infrastructure projects at the expense of smaller projects with more developmental potential. The World Bank will lead the efforts to design the “de-risking”/subsidies measures that will seek to protect global investors from political risk, or the demand risk associated with privatized public services.

As Jim Yong Kim, the World Bank's president put it in 2018: "We have to start by asking routinely whether private capital, rather than government funding or donor aid, can finance a project. If the conditions are not right for private investment, we need to work with our partners to de-risk projects, sectors, and entire countries." But the World Bank should also be asking who pays for de-risking.

The answer is uncomfortable. Poor countries will bear the costs of de-risking, guaranteeing private financial profits. Middle-income countries with a rising middle class will be pressured into adopting the US model of private pensions in order to create local institutional investors. The tendency toward concentration in the asset-management sector (to exploit economies of scale and scope) may result in US-based asset managers absorbing the funds of poor countries' institutional investors, and making allocative decisions on a global level.

This celebration of the opportunities that financial globalization creates for poor countries is strangely quiet on its downsides. This is not for lack of research. Elsewhere, the IMF recognizes that financial globalization has generated a global financial cycle: securities and equity markets across the world, capital flows and credit cycles increasingly move together, all in the shadow of the US dollar. The global financial cycle confronts poor countries with a dilemma, named after the French economist Hélène Rey: there can be either free institutional flows into securities markets or monetary policy independence.

The MFD agenda — development aid is dead, long live private finance! — will make it more difficult for poor countries to choose monetary-policy autonomy and actively manage capital flows. In choosing to surrender to the rhythms of the global financial cycle, poor countries surrender their ability to influence domestic credit conditions, and therefore, autonomous growth strategies.

In this reengineering of financial systems in the Global South, the space for alternative development strategies shrinks further. Public resources have to be dedicated to de-risking "developmental" assets, to identifying "bankable" developmental projects that can easily be transformed into tradable assets, to mopping up the costs of the financial crisis inevitable with this more fragile model, all the while dismantling the financial infrastructure that might support a developmental state (including developmental banking by state-owned banks).

Gabor (2018) Why Shadow Banking Is Bigger Than Ever

7.10 Universal Basic Prosperity

Percy Abstract

Technical development of economies leads to a conflict between the rising cost of collective needs and motivation. Without increases in welfare efficiency, safety is reduced. Reduced safety causes participation decay, creates a tax trap, results in lost productivity, incentivises environmental destruction, and leads to

financial instability. Developed societies will have to deliver effective safety efficiently, as a precursor to addressing other problems. Effective satisfaction of safety needs at a cost that does not erode motivation would revive participation, foster reciprocity, boost productivity, license environmental sustainability, and enable financial stability. Mal-adaptation to resource pressures in developed societies has caused macro instability across social, economic, and environmental dimensions. A conflict in developed societies, between social safety and motivated opportunity, has been unfolding for a century, and intractable for the last 40 years. Problems of insecure livelihoods, unstable finance, and environmental destruction are outcomes of failed attempts to resolve that conflict. To resolve those problems and prevent decline, developed societies will need to strengthen reciprocity in their tax systems, so that they can increase the efficacy and efficiency of their welfare systems. This paper sets out to first clarify the roles of safety, opportunity, and participation, and the binding function of reciprocity in their arrangement. It then reviews the path of taxation in developed societies as they progressed from industrial economies to technically advanced economies over the 20th century. It demonstrates how attempts to suppress taxation, while preserving development status, are connected to insecure livelihoods, unstable finance, climate destruction, and weakened reciprocity. The last section proposes options for establishing strong reciprocity by reforming tax, fiscal and welfare arrangements, to align with achieving universal basic prosperity in the 21st century. The National Contributions report, released as an adjunct report, details tax reform proposals for the UK that conform with the proposals in this paper.

Percy Memo

Finance eroding collective safety

Many of the features of today's advanced societies are consequences of the strategies adopted by developed countries, most aggressively by the UK and US from the 1980s onwards, in an attempt to reconcile safety costs with revenues from taxation. Instead of increasing the efficiency of their safety provision, advanced societies elected to prioritise opportunity over safety. Responsibilities for safety were pushed back to individuals where possible, and the extent of collective safety curtailed where not. To enrich the economy, production shifted to societies where costs could be externalised; where safety costs were lower, and where unsustainable resources could be exploited as much as possible.

Attempts to live with and justify a safety gap over the last 40 years have failed, and created additional barriers to prosperity. Individuals cannot create their own safety, so the net provision of safety has fallen. That has led to a decline in specialisation and stagnant productivity.

Over the last 40 years, finance has been handed the poisoned chalice of responsibility for social safety. In its attempts to conform to that responsibility, it has contorted its workings so much that it is ineffective in its proper role of allocating capital to productive needs. Instead, it is supporting the destruction

of global commons, while dependent on public guarantees. Finance is now both powerful and crippled, at once the tentpole for the system and the poster child for instability.

Savings as private safety

When a society transfers responsibility for safety back to its constituent members, their only option, outside unreliable familial ties, is to accumulate assets that offer the possibility of being converted into safety when needed. But: safety represented in financial assets is unreliable.

Transferring responsibility for safety out of the collective and to the individual, and therefore out of taxation, does not reduce the cost, the need, or the conflict between safety and opportunity. Participation is stifled when this inherent contradiction is not openly addressed. The conflict between safety and opportunity becomes embedded as 'the way it is', rather than a problem to be solved. One side argues for compensation to include safety, and the other side argues for compensation to mirror opportunity.

The result of a policy to transfer safety to individuals is a dramatic increase in the volume of savings in the society. The quantity of savings that needs to be stored will tend to push up the value of assets, push down interest rates on debt, and increase demand for risky investments .

Partly because there are so many savings chasing investments, and partly because of implicit guarantees against losses, the returns on risky investments fall. This leads to even riskier investments becoming part of people's savings. This process continues until all savings include unrecognised losses. When an event happens that would threaten to force the recognition of losses, because the implications for the loss of safety are so politically significant, governments are forced to rescue the value of the assets. When those rescues use public resources to shore up the value of private assets, the losses are passed, unrecognised, from private liability to a social liability.

Safety is not a transferable quality. The responsibility for safety rests permanently and unavoidably with the only entity capable of providing it: the society. No other entity or individual can replicate the qualities of a society, so it is inevitable that any attempts to transfer safety eventually fail, and the responsibility returns to society. The public guarantee exists, whether it is overtly and consciously acknowledged or not.

The larger the quantity of savings, the cheaper debt becomes as savings compete for it, and the larger it grows.

The reliance on maintaining a specific set of economic conditions to prevent large-scale destruction of financial values, which would destabilise the basis on which societies have proposed to establish social safety, is the textbook definition of instability.

Growth does not increase resources for safety needs in a technically developed

society because safety needs rise with growth. To grow, a technically developed society has to become more specialised, not less. As we've established, broader specialisation drives up safety needs as a share of production

The cessation of exploitative practices presents an existential threat to developed societies.

If growth, which has been slowing, eventually stops, the implications for financial values are dire. Assessing the scale of the phantom value incorporated in today's asset prices is not possible because "there is no way to distinguish between real income and profits or bezzle-boosted income and profits" (Bezzle: see below)

Key is: Closing the safety gap using only sustainable resources.

Until societies take responsibility for their own safety, they will underperform while remaining dependent on increasingly unstable financial systems and on exploiting global commons.

A state of universal basic prosperity, in which safety, opportunity, and participation are cherished equally, is achievable with relatively minor adjustments, especially when compared to awaiting the breakdown of the financial system or the environment.

Percy (2021) Universal Basic Prosperity: Sustainable prosperity for the 21st century (pdf)

Bezzle

*The **bezzle**, a word coined in the 1950s by a Canadian-American economist, is the temporary gap between the perceived value of a portfolio of assets and its long-term economic value. Economies at times systematically create bezzle, unleashing substantial economic consequences that economists have rarely understood or discussed.*

In a famous passage from his book The Great Crash 1929, John Kenneth Galbraith introduced the term bezzle, an important concept that should be far better known among economists than it is. The word is derived from embezzlement, which Galbraith called "the most interesting of crimes." As he observed:

> Alone among the various forms of larceny [embezzlement] has a time parameter. Weeks, months or years may elapse between the commission of the crime and its discovery. (This is a period, incidentally, when the embezzler has his gain and the man who has been embezzled, oddly enough, feels no loss. There is a net increase in psychic wealth.) At any given time there exists an inventory of undiscovered embezzlement in—or more precisely not in—the country's business and banks.

Certain periods, Galbraith further noted, are conducive to the creation of bezzle, and at particular times this inflated sense of value is more likely to be unleashed, giving it a systematic quality:

> This inventory—it should perhaps be called the *bezzle*—amounts at any moment to many millions of dollars. It also varies in size with the business cycle. In good times, people are relaxed, trusting, and money is plentiful. But even though money is plentiful, there are always many people who need more. Under these circumstances, the rate of embezzlement grows, the rate of discovery falls off, and the bezzle increases rapidly. In depression, all this is reversed. Money is watched with a narrow, suspicious eye. The man who handles it is assumed to be dishonest until he proves himself otherwise. Audits are penetrating and meticulous. Commercial morality is enormously improved. The bezzle shrinks.

Galbraith recognized, in other words, that there could be a temporary difference between the actual economic value of a portfolio of assets and its reported market value, especially during periods of irrational exuberance. When that happens, Galbraith pointed out, "there is a net increase in psychic wealth."

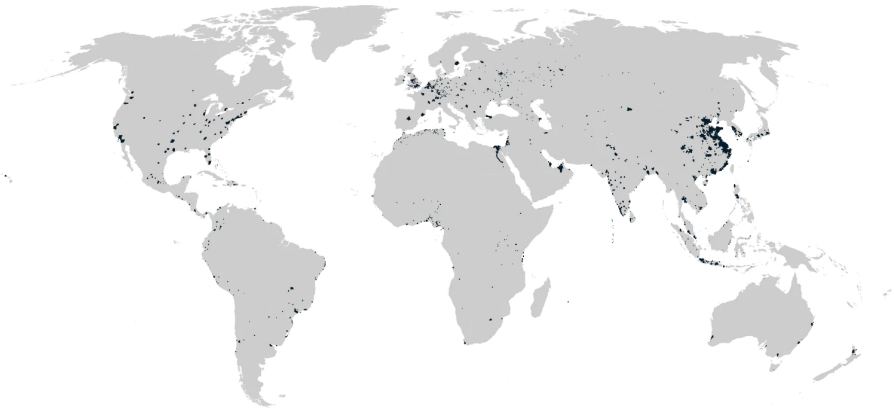
Pettis (2021) Why the Bezzle Matters to the Economy

7.11 Micro-Regions

McKinsey

Granular dataset offers a dramatically different view of human development around the world, uncovering the true depth and breadth of progress in places previously obscured by country averages.

Microregions that account for half of the GDP generated globally from 2000 to 2019



Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by McKinsey & Company.
Regions ranked in descending order by level increase in GDP per km^2 (GDP per km^2 in 2019 minus GDP per km^2 in 2000).
Growth is defined as the net increase in GDP produced by a given region from 2000 to 2019.
McKinsey & Company

McKinsey (2022) Pixels make the picture: A guided tour through the granular

world

7.12 The New Washington Consensus

Michael Roberts

Last month, the US National Security Advisor, Jake Sullivan, outlined the international economic policy of the US administration. This was a pivotal speech, because Sullivan explained what is called the New Washington Consensus on US foreign policy.

The original Washington Consensus was a set of ten economic policy prescriptions considered to constitute the "standard" reform package promoted for crisis-wracked developing countries by Washington, D.C.-based institutions such as the IMF, World Bank and the US Treasury. The term was first used in 1989 by English economist John Williamson. The prescriptions encompassed free-market promoting policies such as trade and finance 'liberalisation' and privatisation of state assets. They also entailed fiscal and monetary policies intended to minimise fiscal deficits and public spending. It was the neoclassical policy model applied to the world and imposed on poor countries by US imperialism and its allied institutions. The key was 'free trade' without tariffs and other barriers, free flow of capital and minimal regulation – a model that specifically benefited the hegemonic position of the US.

But things have changed since the 1990s – in particular, the rise of China as a rival economic power globally; and the failure of the neoliberal, neoclassical international economic model to deliver economic growth and reduce inequality among nations and within nations. Particularly since the end of the Great Recession in 2009 and the Long Depression of the 2010s, the US and other leading advanced capitalist economies have been stuttering. 'Globalisation', based on fast rising trade and capital flows, has stagnated and even reversed. Global warming has increased the risk of environmental and economic catastrophe. The threat to the hegemony of the US dollar has grown. A new 'consensus' was needed.

The rise of China with a government and economy not bowing to the wishes of the US is a red flag for US strategists. The World Bank figures below speak for themselves. The US share of global GDP rose from 25% to 30% between 1980 and 2000, but in the first two decades of the 21st century it fell back to below 25%. In those two decades, China's share rose from under 4% to over 17% – ie quadrupling. The share for other G7 countries—Japan, Italy, UK, Germany, France, Canada—fell sharply, while developing countries (excluding China) have stagnated as a share of global GDP, their share changing with commodity prices and debt crises.

The New Washington Consensus aims to sustain the hegemony of US capital and its junior allies with a new approach. Sullivan: "In the face of compounding

crises—economic stagnation, political polarization, and the climate emergency—a new reconstruction agenda is required." The US must sustain its hegemony, said Sullivan, but "hegemony, however, is not the ability to prevail—that's dominance—but the willingness of others to follow (under constraint), and the capacity to set agendas." In other words, the US will set the new agenda and its junior partners will follow – an alliance of the willing. Those who don't follow can face the consequences.

But what is this new consensus? Free trade and capital flows and no government intervention is to be replaced with an 'industrial strategy' where governments intervene to subsidise and tax capitalist companies so that national objectives are met. There will be more trade and capital controls, more public investment and more taxation of the rich. Underneath these themes is that, in 2020s and beyond, it will be every nation for itself – no global pacts, but regional and bilateral agreements; no free movement, but nationally controlled capital and labour. And around that, new military alliances to impose this new consensus.

This change is not new in the history of capitalism. Whenever a country becomes dominant economically on an international scale, it wants free trade and free markets for its goods and services; but when it starts to lose its relative position, it wants to change to more protectionist and nationalist solutions.

Within the New Washington Consensus is an attempt by mainstream economics to introduce what is being called 'modern supply-side economics' (MSSE). 'Supply-side economics' was a neoclassical approach put up as opposition to Keynesian economics, which argued that all that was needed for growth was the macroeconomic fiscal and monetary measures to ensure sufficient 'aggregate demand' in an economy and all would be well. The supply-siders disliked the implication that governments should intervene in the economy, arguing that macro-management would not work but merely 'distort' market forces. In this they were right, as the 1970s onwards experience showed.

The supply-side alternative was to concentrate on boosting productivity and trade, ie supply, not demand. However, the supply-siders were totally opposed to government intervention in supply as well. The market, corporations and banks could do the job of sustaining economic growth and real incomes, if left alone. That too has proved false.

So now, within the New Washington Consensus, we have 'modern supply-side economics'. This was outlined by the current US Treasury Secretary and former Federal Reserve chair, Janet Yellen in a speech to the Stanford Institute for Economic Policy Research. Yellen is the ultimate New Keynesian, arguing for both aggregate demand policies and supply-side measures.

Yellen explained: "the term "modern supply side economics" describes the Biden Administration's economic growth strategy, and I'll contrast it with Keynesian and traditional supply-side approaches." She continued: "What we are really comparing our new approach against is traditional "supply side economics," which also seeks to expand the economy's potential output, but through ag-

gressive deregulation paired with tax cuts designed to promote private capital investment."

So what's different? "Modern supply side economics, in contrast, prioritizes labor supply, human capital, public infrastructure, R&D, and investments in a sustainable environment. These focus areas are all aimed at increasing economic growth and addressing longer-term structural problems, particularly inequality"

Yellen dismisses the old approach: "Our new approach is far more promising than the old supply side economics, which I see as having been a failed strategy for increasing growth. Significant tax cuts on capital have not achieved their promised gains. And deregulation has a similarly poor track record in general and with respect to environmental policies—especially so with respect to curbing CO2 emissions." Indeed.

And Yellen notes what we have discussed on this blog many times. "Over the last decade, U.S. labor productivity growth averaged a mere 1.1 percent—roughly half that during the previous fifty years. This has contributed to slow growth in wages and compensation, with especially slow historical gains for workers at the bottom of the wage distribution."

Yellen directs her audience of mainstream economists to the nature of modern supply side economics. "A country's long-term growth potential depends on the size of its labor force, the productivity of its workers, the renewability of its resources, and the stability of its political systems. Modern supply side economics seeks to spur economic growth by both boosting labor supply and raising productivity, while reducing inequality and environmental damage. Essentially, we aren't just focused on achieving a high top-line growth number that is unsustainable—we are instead aiming for growth that is inclusive and green." So MSSE-side economics aims to solve the fault-lines in capitalism in the 21st century.

How is this to be done? Basically, by government subsidies to industry, not by owning and controlling key supply-side sectors. As she put it: "the Biden Administration's economic strategy embraces, rather than rejects, collaboration with the private sector through a combination of improved market-based incentives and direct spending based on empirically proven strategies. For example, a package of incentives and rebates for clean energy, electric vehicles, and decarbonization will incentivize companies to make these critical investments." And by taxing corporations both nationally and through international agreements to stop tax-haven avoidance and other corporate tax avoidance tricks.

In my view, 'incentives' and 'tax regulations' will not deliver supply-side success any more than the neoclassical SSE version, because the existing structure of capitalist production and investment will remain broadly untouched. Modern supply-side economics looks to private investment to solve economic problems with government to 'steer' such investment in the right direction. But the existing structure depends on the profitability of capital. Indeed, taxing corporations

and government regulation is more likely to lower profitability more than any incentives and government subsidies will raise it.

Modern supply economics and the New Washington Consensus combine both domestic and international economic policy for the major capitalist economies in an alliance of the willing. But this new economic model offers nothing to those countries facing rising debt levels and servicing costs that are driving many into default and depression.

Debt cancellation is not on the agenda of the New Washington Consensus. Moreover, as Adam Tooze put it recently that "Yellen sought to demarcate boundaries for healthy competition and co-operation, but left no doubt that national security trumps every other consideration in Washington today." Modern supply-side economics and the New Washington Consensus are models, not for better economies and environment for the world, but for a new global strategy to sustain US capitalism at home and US imperialism abroad.

Roberts (2023) Modern Supply Economics and The New Washington Consensus

7.13 Rostow

Benjamin Selwyn on Rostow

Economist Walt Rostow advanced an influential development theory while working as an adviser to the Kennedy and Johnson administrations. Rostow's advocacy of murderous violence in Vietnam flowed directly from his theory of how to promote capitalist growth.

Commonsense notions of development associate it with capitalist modernization. Such notions assume that cumulative economic growth enables poor countries to become more like rich ones.

To facilitate such growth, policymakers, international institutions, and many academics urge poor countries and their populations to adopt modern ways of thought and action, dispensing with familial or communal loyalties and embracing the benefits of capitalist markets and impersonal bureaucracies.

Those who adopt this perspective insist that such modernization will be beneficial for developing societies in the long run, even though there will always be those who lose out and seek to resist the process. However, since the benefits of economic growth and cultural change outweigh the losses, it is legitimate to forcefully suppress such opposition.

No thinker was more influential in theorizing and popularizing such notions of development underpinned by violent coercion than Walt Whitman Rostow (1916–2003).

A core element of Walt Rostow's theory involved the advocacy of mass violence to eliminate opposition to his vision of development.

It was in his advisory positions that Rostow popularized his notion of development and went on to justify murderous US military escalation in Vietnam. Most academic treatments of Rostow disassociate these two moments of his career, either by ignoring his role in the Vietnam War or by portraying it as incidental to his theoretical views. In reality, a core element of his theory involved the advocacy of mass violence to eliminate opposition to his vision of development.

His book The Stages of Economic Growth: A Non-Communist Manifesto, first published in 1960, caught the imagination of those who favored the capitalist development of poor countries. Rostow's skill was to conceptually associate development with capitalist modernization. From this starting point, any threat to capitalist modernization could be seen as a threat to development as such.

Most of the discussion about Rostow's development theory overlooks the fact that it was predicated upon mass violence. For Rostow, pro-capitalist elites in poor countries should ally with the United States to physically eliminate threats to capitalist modernization. His role in escalating the US war on Vietnam flowed logically from his development theory. As historian David Milne put it: "Rostow was not the sole reason why America bombed North Vietnam, but his contribution was of fundamental importance."

In The Stages of Economic Growth, Rostow sought to answer two overlapping questions. Firstly, how could newly independent states in the emerging postcolonial context transform their economies to become like the United States, the most developed country at that time? Secondly, how could newly established postcolonial elites eliminate the threat posed by Communist movements to capitalist modernization¿'Rostow insisted that all countries could pass through five stages of economic growth, culminating in a US-style age of high mass-consumption." In order to do so, they would need to adopt the correct, pro-capitalist cultural orientation as well as an anti-communist political-economic commitment, under military guidance from national elites in concert with the United States.

As Rostow put it:

> It is possible to identify all societies, in their economic dimensions, as lying within one of five categories: the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high mass-consumption.

For Rostow, economic change was "the consequence of political and social as well as narrowly economic forces." It was the combination of economic growth with the transformation of ideas and norms — from "traditional" to "modern" — that would propel countries through these stages. Crucially, he argued that the modernizing impulse tended to come from outside traditional society — in his own words, "not endogenously but from some external intrusion by more advanced societies."

This emphasis on the external impulse to modernize enabled Rostow to identify

the United States as the key ally for the elites of developing nations in two important ways. Firstly, it would assist them in their attempts to attract foreign investment and technological transfers and integrate their economies into global markets. Secondly, the world's hegemonic state would forge necessary alliances with the new national elites as they sought to eliminate the Communist menace to capitalist modernization. "According to Rostow, communism was a 'disease of the transition,' with communists playing the role of 'scavengers' in the modernization process." Coalitions of postcolonial elites and the US military should be "prepared to deal with the enemies" of capitalist modernization.

The German-born sociologist Andre Gunder Frank was a contemporary of Rostow's who wrote about development from a radically different perspective. He offered a scathing summary of Rostow's intellectual agenda and his work for the Kennedy and Johnson administrations:

> As to the efficacy of the policy recommended by Rostow, it speaks for itself: no country, once underdeveloped, ever managed to develop by Rostow's stages. Is that why Rostow is now trying to help the people of Vietnam, the Congo, the Dominican Republic, and other underdeveloped countries to overcome the empirical, theoretical, and policy shortcomings of his manifestly non-communist intellectual aid to economic development and cultural change by bombs, napalm, chemical and biological weapons, and military occupation?

Rostow advocated mass killing to promote American-style capitalism. However, the way that universities have taught and disseminated his work has often concealed this reality. As one of the most influential theorists of capitalist development, Rostow is an outstanding example of how ruthless violence underpins capitalist development, both in theory and practice.

Selwyn (2023) Walt Rostow's development theory shows that capitalism relies on brutal violence

8

Impotent Capital

Purcell

While the exploitation of domestic working class forms the quantitative bulk of surplus value appropriated by capital, it is inflows of extraordinary profits paid by capital and workers consuming raw materials in the form of ground rent which is the foundation for the specific qualitative modality taken by the valorisation of capital in South America. An important upshot of this insight is that labour does not need to operate at the world average levels of productivity. The transfer of ground rent from the rent-bearing sector, via state policies, permits the 'normal' valorisation of capital at the world average market rate of profit in the otherwise backward spaces of the national economy. As a result, capital does not follow its world historical necessity to develop the forces of production while still valorising at the average rate of profit through the appropriation of ground rent. This is the tragedy of capitalism and development in South America which *renders capital impotent*, restricting valorisation to the small scale of internal markets and negating the historical potential of the South American working class.

The limited development potentialities of these national territories is rooted in the global inflow of extraordinarily large masses of social wealth in the form of differential ground rent. This explains why capital has not had to reckon with landed property (as happened in South Korea, for example) as a barrier for its accumulation. Instead, capital has been able to valorise at the average world market rate of profit by appropriating a portion of ground rent and leaving another portion that reproduces the landlords as a class. So, far from simply being a source of cheap raw materials extracted by global capital – where the numerous accounts of neo-extractivism start and finish – these national spaces are determined as sources of ground rent recovery by global industrial capital. Especially when fragments of global industrial capital locate a portion of manufacturing in the domestic market for the valorisation of technologically obsolete capital in

world market terms. The extent to which various centre-periphery frameworks have incorporated ground rent in their analysis, as many of the authors show, has been limited in methodological and theoretical terms. Subsumed under nebulous concepts like 'unequal exchange' or more recently 'extractivism', ground rent is rendered indistinguishable from other forms of 'economic rent' extraction through finance, digital platforms, institutional organisation, and the like.

Purcell (2023) Impotent Capital

9

Power and progress

Roberts on Acemoglu and Johnson

'Power and Progress – a thousand- year struggle over technology and prosperity'. This book does not give us much chapter and verse in empirical evidence of the impact of technology on productivity growth or on the incomes of the many as opposed to the few.

Instead, in Power and Progress we get a sweeping historical account of how technology has taken humanity forward in terms of living standards but also often created misery, poverty and increased inequality.

Acemoglu and Jonson ask the question: "Aren't we more prosperous than earlier generations, who toiled for a pittance and often died hungry, thanks to improvements in how we produce goods and services?" They answer: "Yes, we are greatly better off than our ancestors. Even the poor in Western societies enjoy much higher living standards today than three centuries ago, and we live much healthier, longer lives, with comforts that those alive a few hundred years ago could not have even imagined. And, of course, scientific and technological progress is a vital part of that story and will have to be the bedrock of any future process of shared gains."

But they argue that this was not an automatic (sic) result of technology, but rather "shared prosperity emerged because, and only when, the direction of technological advances and society's approach to dividing the gains were pushed away from arrangements that primarily served a narrow elite. We are beneficiaries of progress, mainly because our predecessors made that progress work for more people. As the eighteenth-century writer and radical John Thelwall recognized, when workers congregated in factories and cities, it became easier for them to rally around common interests and make demands for more equitable participation in the gains from economic growth…. Most people around the globe today are better off than our ancestors because citizens and workers

in early industrial societies organized, challenged elite-dominated choices about technology and work conditions, and forced ways of sharing the gains from technical improvements more equitably."

Acemoglu and Johnson point out the 'industrial revolution' in Britain and later in Europe and the United States did not lead to a rise in average real incomes for most workers until well into the second half of the 19th century.

They concur with the analysis of Friedrich Engels in his book, The condition of the working class in England, written in 1844, that as hand weavers and workers in other handcraft sectors lost their jobs to machines in the cities, they were pauperised while rural workers and their families coming to the cities to work in factories were paid a pittance.

It took the rise of labour organisations, government legislation and the beginnings of some welfare distribution to bring about a significant rise in comes, according to the authors.

They also point out that "The Gilded Age of the late nineteenth century was a period of rapid technological change and alarming inequalities in America, like today. The first people and companies to invest in new technologies and grab opportunities, especially in the most dynamic sectors of the economy, such as railways, steel, machinery, oil, and banking, prospered and made phenomenal profits…. Businesses of unprecedented size emerged during this era. Some companies employed more than a hundred thousand people, significantly more than did the US military at the time. Although real wages rose as the economy expanded, inequality skyrocketed, and working conditions were abysmal for millions who had no protection against their economically and politically powerful bosses. The robber barons, as the most famous and unscrupulous of these tycoons were known, made vast fortunes not only because of ingenuity in introducing new technologies but also from consolidation with rival businesses. Political connections were also important in the quest to dominate their sectors."

This is all the same shades of the late 20th century and now.

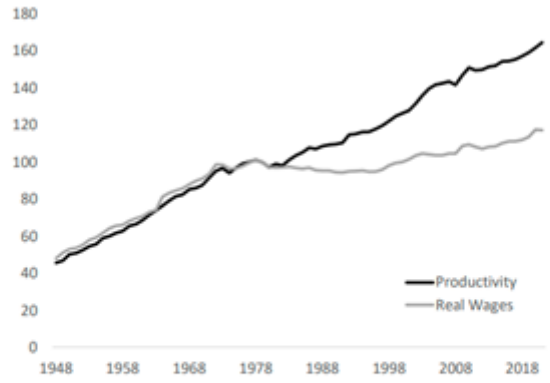


Figure 20: Productivity and Real Wages in the United States

Note: These data series were constructed by the Economic Policy Institute using methodology described in Bivens and Mishel (2015). The black line is productivity measured as output of goods and services less depreciation per hour worked. The gray line is hourly compensation (wages and benefits) of production and non-supervisory workers in the private sector. Data is from 1948 to 2021.

The book considers what can be done to ensure that the gains from the productivity 'bandwagon' of modern technology like robots, automation and AI can be spread among the many and not just garnered by the few.

Acemoglu and Johnson reckon that "technology advancements are usually seen by managers with business-school educations as opportunities to reduce wages and cut labor costs, because of the lingering influence of the Friedman doctrine—the idea that the only purpose and responsibility of business is to make profits." This is naïve – surely capitalist businesses' main aim is to make profits – that's the point. It is not the ideology of Friedman that drives this, but the necessary drive for profits delivers the ideology of Friedman.

As the authors point out, contradictions arise under a mode of production for profit: "The problem is an unbalanced portfolio of innovations that excessively prioritize automation and surveillance, failing to create new tasks and opportunities for workers. Redirecting technology need not involve the blocking of automation or banning data collection; it can instead encourage the development of technologies that complement and help human capabilities." But under capitalism, it does not do so.

The authors studiously avoid the obvious policy conclusion that if most of the gains from technology go to those with the power, then to spread those gains, technology needs to be owned and controlled not by tech oligarchs but by the many through common ownership.

Roberts (2023) Power and progress

10

Secular Stagnation

Benavav

By now "secular stagnation" has become a mainstream view, having no necessary association with Marxist or heterodox economic thinkers, like Robert Brenner or myself. Oliver Blanchard thinks that, alongside a too-high savings rate, the vanishing of investment opportunities means that secular stagnation is likely to return in the near future. As he recently said:

> I believe that global secular stagnation was and is driven by deep structural factors that neither COVID nor inflation have done anything to reverse. Once central banks have won the fight against inflation, which they will, we shall most likely return to a macroeconomic environment not dramatically different, at least in this respect, from the one before COVID.

Of course, to say so is not to say that it is logically impossible that secular stagnation might one day be reversed. There could be breakthroughs that radically raise the productivity growth rates of capitalist economies. The issue is that, in spite of all the fanfare, and as Blanchard avers, "Such a technological explosion did not happen in the last 40 years, but it could."

None of these secular stagnationists believe that the economic growth rate is likely to fall to zero, but that it will tend to fall to around 1 to 1.5 percent in the high-income countries. Still, many of them believe that, if the economy gets stuck at this growth rate, the results will be politically contentious.

Non-Marxist secular stagnationists fail to draw out the political implications of their theory in more detail. By contrast, Marxist long-wave theorists do offer a political account of changes in class relations over the course of long waves. Periods of low profitability are associated with rising class conflict. Capitalists are trying to make up for falling capital productivity by raising the capital

share, resulting in wage stagnation. Economic and financial insecurity intensifies; capitalists encourage changes in the law allowing for the spread of precarious employment; and they fight politically for austerity. In downswing periods, advocates of compromise with capitalists mostly just organize the defeat of the working class. Does this theory feel so out of step with what has happened since 1973? Trades unions lost a lot of support as they stopped fighting for working people and instead organized the working-class defeat. The same is often said of social democratic and labor parties: they stopped fighting for people and instead organized their defeat.

In an era of secular stagnation, capitalists have given up on using the profits they have gained, through their success in raising capital shares, to fund further dynamic economic expansion.

Before transitioning to low-savings, low-investment, high-consumption economy, we would want to engage in one last effort to reshape the economy. In this effort, public investment would have to displace private investment as the main engine of growth.

Benanav (2023) We're All Stagnationists Now

10.1 Space Economy to the rescue?

Weinzierl

In this speculative article, I argue that the expansion of economic activity in space may offer a uniquely promising way to escape indefinitely from what economists call "secular stagnation," a state of self-fulfilling, persistently sluggish economic growth that has increasingly threatened high-income countries. Economists have pointed to both supply-side and demand-side drivers of secular stagnation, and space as a focal point for investment can—at least in principle—address both. On the supply side, space is an unlimited frontier that, as have frontiers in the past, may inspire the individualism, innovation, and world-building needed to sustainably increase productivity and population growth. On the demand side, public investment toward increased economic activity in space could meaningfully add to aggregate demand if it reached historical peak benchmarks in the United States.

Modern theories of secular stagnation suggest that sustained escape from it typically requires sharp increases in aggregate demand (from a depressed level) and sustained increases in aggregate supply, for example, through a surge in capital investment and lasting growth in productivity or population. Unfortunately, these requirements have recently proven increasingly hard for high-income countries to satisfy, and a long-term solution seems elusive. On the demand side, long-term declines in the cost of investment goods have not generated a surge in investment demand, with market-clearing real interest rates seemingly stuck far below zero. On the supply side, entrepreneurship, productivity, and innovation

seem to be slowing, evidence suggests that economically transformative ideas are becoming more resource intensive to generate, and the average fertility rate among OECD countries has fallen from 2.84 to 1.59 (well below replacement levels) over the half-century from 1970 to 2020.

A concerted effort to expand economic activity in space has the perhaps unique potential, at least in principle, to address indefinitely both the demand and supply roots of secular stagnation. In brief, the potential is as follows. On the demand side, if the United States were to return to its historical peak levels of public-sector investment in space—as a share of federal government outlays or gross domestic product—it could directly add between $1.5 trillion and $3 trillion to demand over the next two decades and indirectly add, by inspiring private-sector investment in expanded space activities, potentially much more. On the supply side, space might serve as a new and essentially infinite physical frontier, spurring dynamism, innovation, and thus productivity growth as have frontiers throughout history, but this time with no end point. Similarly, expansion into space is humanity's only real option for sustained population growth in the long run. As far as I am aware, only space offers this combination of attributes.

Weinzierl (2023) Expanding economic activity in space may offer a solution to secular stagnation

11

Supply Politics

Tooze

Martin Sandbu on how to think of the medium-term future:

> I would like to focus on three overarching characteristics of the direction of economic change. The first is fragmentation — the raising of new economic barriers between countries and the end of the globalising impulse that has defined the world economy for nigh-on 40 years. The second is increased volatility — whether from intensifying climate events, more frequent and hereto unthought-of geopolitical shocks, or built-in instabilities in financial markets that we are discovering as interest rates go up. The third characteristic is more of a catch-all category: I think of it as the rise of the supply side. The increased volatility and shocks we face seem increasingly likely to affect the supply side and the structural make-up of the economy. The supply side is also the main site of the return of state activism in economic management. From largely focusing on demand management (through independent central banks) and redistribution of the fruits of growth (through tax and benefit policies), governments have now embraced a responsibility for shaping the structure of the economy and the direction of growth. This new activism applies to huge policy areas ranging from geopolitical resilience (building domestic microchip supply chains), decarbonising the energy system, and managing the digital transition of our lives and livelihoods.

Tooze (2023)

Part I

Appendices

Appendix A

About

Dyre Haugen and *Dyrehaugen* is Webian for *Jon Martin* - self-owned Globian, Webian, Norwegian and Canarian with a background from industrial research policy, urban planning and economic development consulting on global, regional and urban scales. I am deeply concerned about the (insane) way humanity (i.e. capitalism) interfere with nature. In an effort to gain insights in how and why this happens stuff is collected from around the web and put together in a linked set of web-sites. The sites are operated as personal notebooks. However, these days things can be easily published to the benefit of others concerned with the same issues. But be aware - this is not polished for presentation or peer-reviewed for exactness. I offer you just to have a look at my 'work-desk' as it appears in the moment. Any comment or suggestion can be mailed to dyrehaugen@gmail.com You can follow me on twitter as @dyrehaugen. Thanks for visiting!

Appendix B

Links

Current Dyrehaugen Sites:

- rcap - On Capitalism (loc)
- rclm - On Climate Change (loc)
- recs - On Economics (loc)
- rfin - On Finance (loc)
- rngy - On Energy (loc)
- renv - On Environment (loc)
- rsts - On Statistics (loc)
- rurb - On Urbanization (loc)
- rvar - On Varia (loc)
- rwsd - On Wisdom (loc)

Blogs:

- rde - Blog in English (loc)
- rdn - Blog in Norwegian (loc)

Discontinued:

- jdt - Collection (Jekyll) (loc)
- hdt - Collection (Hugo) (loc)

Not listed:

- (q:) dhe dhn jrw56
- (z:) rcsa rpad rstart

Appendix C

NEWS

C.1 221220 Market-based development finance in crisis

On December 13 Ghana reached staff-level agreement on a $3 bn IMF credit package. In addition it is seeking to negotiate a 30 percent haircut with private creditors on tens of billions in bonds. Already in September Ghana's 2026 eurobonds plunged to a record low of 59.30 cents on the US dollar. By the end of October yields had surged to 38.6 %, up from less than 11% at the end of 2021. Meanwhile, inflation is headed to 40 percent and the cedi is the worst performing currency not just in Africa but of all currencies in the world.

You could shrug and say that this is Ghana's second IMF deal in 3 years and its 17th since independence in 1957. Plus ça change. But it is more than a national crisis. It is the latest sign that the entire model of market-based development financing is in crisis.

Tooze (2022) Chartbook #181: Finance and the polycrisis (6): Africa's debt crisis

C.2 210717 Carney calls for stronger Government Regulation

For the world to meet its climate goals, governments would have to force industries to follow *clear rules, on everything* from energy generation to construction and transport, and set carbon prices that would drive investment towards green ends and close down fossil fuels.

"We need clear, credible and predictable regulation from government," he said. "Air quality rules, building codes, that type of strong regulation is needed. You

can have strong regulation for the future, then the financial market will start investing today, for that future. Because that's what markets do, they always look forward."

Without such robust intervention from governments, markets would fail to address the crisis.

Gurdian

Appendix D

Sitelog

Latest Additions

December 17, 2023 development\ noah on why nations become wealthy (sic)

Bibliography