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The Economic Possibilities For My Grandchildren

IMF Managing Director's Keynote Speech at King's College, Cambridge, followed by a conversation with provost Gillian Tett featuring Kristalina Georgieva

March 14, 2024



1. Introduction

Thank you, **Gillian**, for the kind introduction. I want to start by recognizing your leadership—as a creative thinker, a brilliant journalist and anthropologist, and—most recently—the 45th Provost since King’s College was founded nearly 600 years ago. You have become a moral authority for many economists, myself included.

The inspiration for this lecture came from John Maynard **Keynes’** essay “*Economic Possibilities for Our Grandchildren*”. Keynes, as we all know, studied and worked at King’s, and he became the father of modern macroeconomics. He is also one of the founders of the institution that I am proud to lead, the **International Monetary Fund**.

When he went to New Hampshire in 1944 for the creation of the two Bretton Woods institutions—the IMF and the World Bank—he brought his vision, courage, and **optimism**—an unwavering belief in the power of humanity to make lives better over time, despite the setbacks brought by calamities—such as crises and wars.

This optimism shines in *Economic Possibilities for Our Grandchildren*—and this particular work has a special place in my heart. Why? Because I think a lot about the future of *my* grandchildren. And because I am an unwavering optimist—just like Keynes who even in 1930, in the dark days of the **Great Depression**, saw a brighter future.

As in Keynes’ time, there are plenty of pessimists around today. With a little help from AI, we can hear what he said about them in his essay:

*“I predict that both of the two opposed errors of pessimism which now make so much noise in the world will be proved wrong in our time—the pessimism of the **revolutionaries** who think that things are so bad that nothing can save us but violent change, and the pessimism of the **reactionaries** who consider the balance of our economic and social life so precarious that we must risk no experiments.”*

Keynes projected that, in 100 years’ time, living standards would be as much as **eight times** higher, driven by gains from technology and capital accumulation. And he was right—the massive leap in living standards is very close to what he had predicted.

Looking that far in the future, of course he did not get *everything* right.

He expected people to turn productivity gains into more leisure, but his projected 15-hour week has not yet arrived. He was also too optimistic about how the benefits of growth would be shared. Economic inequality remains too high, within and across countries.

And yet, his key message about the long-term economic gains from technology and investment holds as true today as it did then. It is the foundation for a **promise to be made**—to the next generation and those who follow.

My own granddaughter, Ivana, is here with us today; and my grandson, Simeon, will perhaps read my remarks when he is a bit older. What can I do—what can we do—to ensure that their generation will have a better life?

Young people today face enormous challenges, even in richer countries: from paying for their education, to finding work and buying a home, to being deeply concerned over how climate change will impact their lives.

It's easy to be pessimistic. Just look at these headlines.

Many people—young and old—are feeling that the economy is not working for them. Many are not just anxious but angry. For many, trust has eroded. And we are seeing this play out—in society and in politics.

Surely, we do not want our grandchildren to live in an **Age of Anger**?

For that, we must be clear-eyed about the risks. But also see the opportunities—and seize them.

Bear with me—like Keynes, I want to take the long view.

2. The Past 100 Years

First, I want to look back. Over the **past 100 years**, the world has seen more progress for more people than ever before.

Even as the global population has quadrupled, per-capita global income has risen eightfold.

Over the past three decades alone, 1.5 billion people lifted themselves out of poverty. And hundreds of millions entered the middle class.

A hundred years ago, people were fortunate to live until their 40s. Today, on average, they can expect to live into their 70s. Consider also the dramatic improvements in infant mortality rates, literacy rates, and education levels—especially for girls.

RISING LIVING STANDARDS AND LIFE EXPECTANCY

Slide

1924

Asia Africa Europe Americas

Source: Gapminder.

IMF

How did we get here?

Two of the drivers of progress—**technology and capital accumulation**—worked just as Keynes predicted.

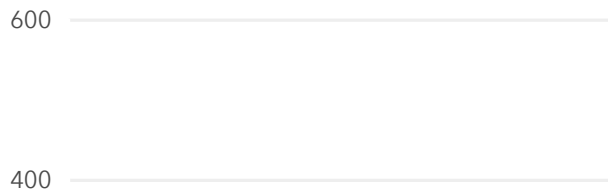
People's lives and prospects were transformed by innovations—electricity, the internal combustion engine, antibiotics, indoor sanitation, communications technology—many of which started in the 19th century and came to fruition in the 20th.

Capital fueled investment in industry, agriculture, and services; public revenue gave us essential infrastructure: from roads and ports to electricity grids and fiber-optic cables. All of this has driven productivity and output growth, which has in turn bolstered the size of the economy.

On top of those came **economic integration**. Over the past 40 years alone, we saw a six-fold expansion in global trade.

WORLD TRADE GROWTH

Global trade volume index, 1980=100



Source: World Trade Organization.

IMF

Global capital flows increased more than 10-fold. This has boosted productivity and investment, especially in emerging economies.

In my own country, Bulgaria, per-capita income has quadrupled since the fall of the Iron Curtain—mostly due to the opportunities from integration, with the EU and from global trade.

And the number of countries has grown from about 80 to 193 today—a vibrant family of nations glued together by a “special ingredient”: **international cooperation**, ranging from coordination of economic policy in times of crisis, to scientific discovery and cultural exchanges, to peacekeeping and space exploration.

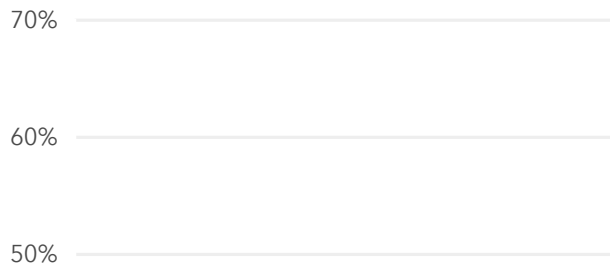
Cooperation gave us what some scholars are calling the post-1945 “long peace”—the absence of direct conflict between the great powers.

Put simply: *the more we talk, the more we trade, the more we thrive.*

And the world continued to change—economic power has increasingly shifted to emerging and developing countries.

SHIFTING ECONOMIC CENTER OF GRAVITY

Share of global GDP, based on PPP



Source: IMF WEO Database, October 2023.

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This year, they are projected to account for almost 80 percent of global growth.

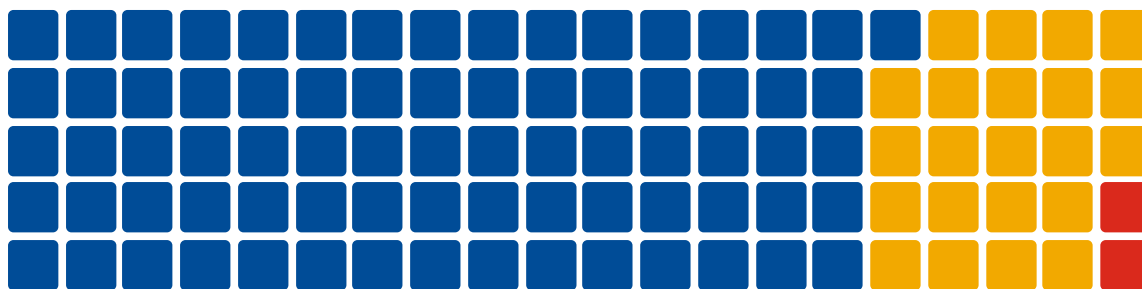
But there have been policy errors—especially a failure to do enough to support those hit hard by dislocations from new technologies and trade. A failure to share the benefits of growth more widely.

Some three-quarters of the world's wealth today is owned by just one-tenth of the population.

GLOBAL INEQUALITIES

Share of global wealth by population segment

■ Top 10% ■ Middle 40% ■ Bottom 50%



Source: The World Inequality Lab.

IMF

And too many developing countries are no longer catching up to advanced-economy income levels. More than 780 million people face hunger.

We [have also learned](https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Growing-Apart-Losing-Trust-The-Impact-of-Inequality-on-Social-Capital-44197) (<https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Growing-Apart-Losing-Trust-The-Impact-of-Inequality-on-Social-Capital-44197>) that high levels of economic inequality have a corrosive effect on social capital and trust—in public institutions, in companies, in each other.

And we see trust diminishing among nations too, with geopolitical tensions on the rise. If that trend were to continue, the world economy could 'fragment' into rival blocs.

[IMF research shows](https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/01/11/Geo-Economic-Fragmentation-and-the-Future-of-Multilateralism-527266?cid=bl-com-SDNEA2023001) (<https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/01/11/Geo-Economic-Fragmentation-and-the-Future-of-Multilateralism-527266?cid=bl-com-SDNEA2023001>) that trade **fragmentation** alone could cause a global output loss of up to \$7.4 trillion over the longer term—equivalent to the combined GDPs of France and Germany.

A fragmented world would be poorer and less secure. We see ongoing the human tragedy of Russia's war in Ukraine and the Israel-Gaza conflict—and there are many more that often don't make the headlines. Many nations are now reversing the cuts to military spending made after the end of the Cold War. The 'peace dividend' is gone; and the 'long peace' may be at risk.

Ironically, this is happening just when we need cooperation more than ever—to tackle issues which are borderless and cannot be resolved by any country on its own. Climate change is the most glaring example.

These are major challenges. But at the same time, there are **great opportunities**. If the past 100 years are any guide, we can be reasonably confident in our ability to achieve astounding progress once again. Add to this a clear understanding of what did not work in the past, and we have 'agency': the power to change course.

3. The Next 100 Years

Imagine the world in the **22nd century**, where everyone—regardless of race, color, creed, gender, or birthplace—has a fair shot at fulfilling their full potential. Where technology is put to work for the benefit of all. Where people lead healthy and meaningful lives on a livable planet. And where countries work with, not against each other.

I can see the pessimists rolling their eyes. Let's turn once more to Keynes and his essay:

"I look forward in days not so very remote, to the greatest change which has ever occurred in the material environment of life for human beings in the aggregate. But, of course, it will all happen gradually...Indeed, it has already begun."

In that spirit, let me share with you **two possible scenarios** for the next 100 years, developed by IMF staff.

WHAT MIGHT GDP LOOK LIKE IN 100 YEARS

Global GDP scenarios index, 2023 = 1

10 _____

Source: IMF staff estimates.

IMF

In what we might call the 'low ambition scenario', global GDP would be about three times larger and global living standards twice as high as today. In the 'high ambition scenario', global GDP would be 13 times larger, and living standards would be nine times higher.

Why the huge difference? The 'low ambition scenario' is based on the lower-growth experience of living standards in the 100 years before 1920, while the other one is based on the much higher average growth rates from 1920 until now.

I believe that our grandchildren will enjoy the better of the two.

First, because they will rely on a **different kind of growth**: more sustainable and equitable, more resilient—so that countries can better navigate a more **shock-prone world**.

Second, because they will turbocharge what has worked for us. They will protect and enhance the sound macroeconomic fundamentals and financial stability we strive to achieve.

Third, they will sustain open trade as a major engine of growth; and entrepreneurship as a major engine of innovation and employment.

Our responsibility today is not to leave to them with runaway inflation, not to pile up debt and expect them to foot the bill—and to overcome the weakest medium-term growth prospects (<https://www.imf.org/en/Publications/WEO/Issues/2023/10/10/world-economic-outlook-october-2023>) in decades.

WEAK MEDIUM-TERM GROWTH PROSPECTS

Five year-ahead real-GDP growth projections

8% _____

6% _____

Source: WEO October 2023; IMF staff calculations.

IMF

Our job at the IMF is to support our members to undertake **fundamental reforms** to improve productivity and increase the agility, sustainability, and resilience of the economy.

Above all, we have an obligation to correct what has been most seriously wrong over the last 100 years—the persistence of high economic inequality. [IMF research](https://www.imf.org/en/Publications/WP/Issues/2019/02/15/Inequality-of-Opportunity-Inequality-of-Income-and-Economic-Growth-46566) (<https://www.imf.org/en/Publications/WP/Issues/2019/02/15/Inequality-of-Opportunity-Inequality-of-Income-and-Economic-Growth-46566>) shows that lower income inequality can be associated with higher and more durable growth. We simply cannot get to the 'high ambition scenario' for growth unless we foster a fairer global economy.

In a world of abundant capital accumulation and accelerating technological change, prospects for my grandchildren will hinge on whether we can **allocate capital to where it is needed most and will make the biggest positive impact**, and on our ability to cooperate, to achieve progress and to share the benefits of it.

So, if we are to promote better, fairer growth, where should capital go? Let me highlight **three priority areas of investment**.

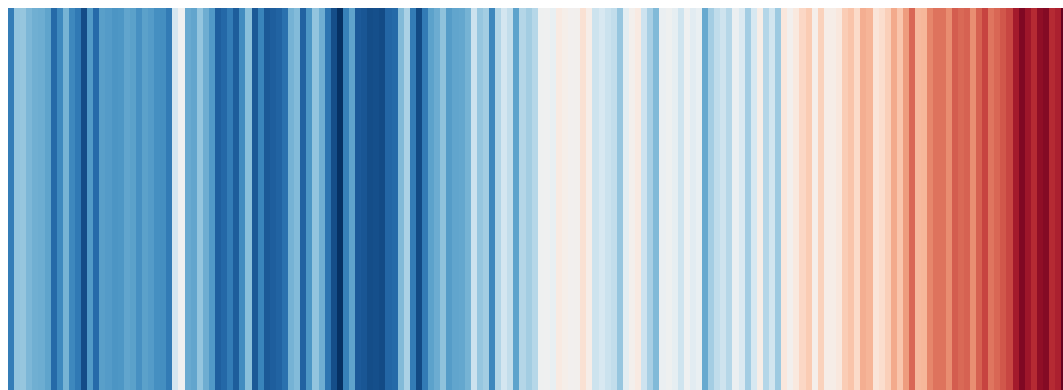
First, in the new climate economy.

The climate crisis did not exist in 1930, although the seeds of it were already planted with the rapidly growing reliance on fossil fuels.

Today climate shocks are hitting economies everywhere—from droughts, wildfires, and floods to less visible impacts in areas such as supply chains and insurance markets. Last year was the hottest on record, and global temperatures are set to surpass the critical 1.5 degrees Celsius threshold.

CLIMATE CRISIS

Temperature anomaly -0.6°C  1.2°C 



Source: Met Office Hadley Centre.

IMF

Pessimists can point to this and say that humanity faces a disastrous reckoning. I see a different picture: yes, unchecked climate change would be catastrophic, but if we take decisive policy action, especially in this decade, we can reach a carbon-neutral economy.

That is a promise we must make.

It means mobilizing trillions of dollars in climate investments — for mitigation, adaptation and transition. Low-income countries have contributed the least to global warming but are suffering most. They also face the greatest investment gap.

It means addressing the terrible market failure that sees polluters damage our planet free of charge. The price of oil, coal and gas must reflect the true cost to humanity, including the impact on our climate and on public health.

Yet [IMF research shows](https://www.imf.org/en/Publications/WP/Issues/2023/08/22/IMF-Fossil-Fuel-Subsidies-Data-2023-Update-537281) (<https://www.imf.org/en/Publications/WP/Issues/2023/08/22/IMF-Fossil-Fuel-Subsidies-Data-2023-Update-537281>) that explicit fossil-fuel subsidies have surged to over \$1.3 trillion.

\$1.3 TRILLION IN FOSSIL-FUEL SUBSIDIES

Explicit fossil-fuel subsidies in trillions of USD

Source: IMF staff calculations.

IMF

This alone is bad enough. But we also know these subsidies typically give the richest 20 percent of the population about six times more benefits than the bottom 20 percent. Direct assistance to vulnerable groups would be far better.

Our research also shows that pricing carbon is the the most efficient way to incentivize and accelerate decarbonization. We have a long way to go—the average price per ton of CO₂ emissions today is only \$5, way below the \$80 we need to reach by 2030. But there is progress: 73 carbon pricing schemes in nearly 50 countries are covering a quarter of global emissions—a doubling since the Paris Agreement was signed in 2015.

And investors are responding. For every \$1 spent on fossil fuels, \$1.70 is now spent on clean energy—compared with a ratio of 1:1 five years ago.

More climate investment would create millions of green jobs, increase innovation, and accelerate green-technology transfers to developing economies. And it will break the historic link between growth and emissions—so as countries get richer, people enjoy better living standards without hurting our planet.

The climate transition is a part of moving towards a “lighter economy”—more oriented towards intangible assets, such as intellectual property and “experience” rather than goods, and much more efficient and less wasteful—what some have called the ‘circular economy’.

Second, investing in the next industrial revolution.

We don't know for sure what the economy would look like in 100 years—or even whether it will be solely based on planet Earth. What we do know is that innovation *is* accelerating, transforming the way we live, work, and move, and the way we communicate with each other.

From quantum computing to nanotechnology, from nuclear fusion to virtual reality, from new vaccines to gene therapy —we create miracles, like restoring hearing in children with genetic deafness.

And let’s not forget: our world is still more interconnected than ever before—so there is huge potential to share knowledge and rally people behind common causes.

Take **artificial intelligence**. It began here, in King’s, in 1950, when Alan Turing published his seminal paper. Every decade since then has brought us a step further, and every step has come faster than the previous one. Today’s generative AI is poised to reinvigorate the global economy: a “Big Bang” moment.

The promise of transformation comes with risks. We must ensure that the technology serves humanity—not the other way round. Instead of deepfakes and disinformation, we want to have scientific, medical and productivity breakthroughs.

We want AI to reduce inequality, not increase it — both within and across countries.

[New IMF research shows](https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2024/01/14/Gen-AI-Artificial-Intelligence-and-the-Future-of-Work-542379?cid=bl-com-SDNEA2024001) (https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2024/01/14/Gen-AI-Artificial-Intelligence-and-the-Future-of-Work-542379?cid=bl-com-SDNEA2024001) that, in advanced economies, about 60 percent of jobs could be affected by AI.

60% OF AE JOBS COULD BE AFFECTED BY AI

High exposure jobs Low exposure jobs



Source: ILO and IMF staff calculations.

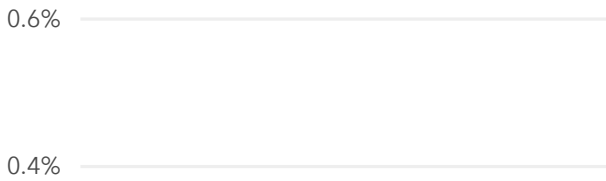


Half of these may see benefits from AI—which is great news. But the other half may see AI taking over more and more human tasks. This could drive down wages and destroy some jobs entirely—Keynes himself warned of this when he wrote about “*technological unemployment*”.

On the other hand, AI could turbocharge productivity, which has been too low for too long.

PRODUCTIVITY GROWTH SLOWDOWN

Global total factor productivity growth, period average



Source: Penn World Tables.

IMF

Productivity, more than anything else, determines the long-term wealth of nations.

I am especially struck by AI's potential to transform economies and lives in the developing world. Yes, to boost productivity, but also to shrink gaps in human capital and help income levels catch up with those in the advanced economies. But countries must start preparing now: scaling up investment in digital infrastructure, expanding access to retraining and reskilling, setting up regulatory and ethical foundations of AI.

And these efforts need to be coupled with stronger international cooperation. Indeed, I believe that we need **global principles** for the responsible use of AI—guardrails—to minimize the risks and open up the opportunities for everyone.

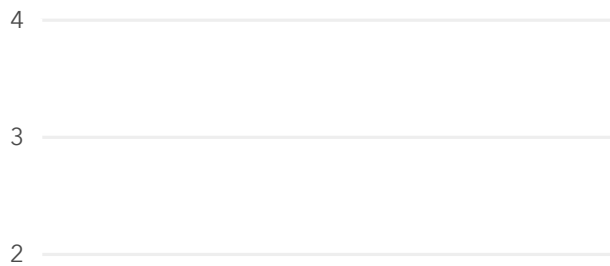
The third area of investment is in people.

The greatest dividends are paid here: investing in health and education, in stronger social safety nets, and empowering women economically. This lies at the heart of better and fairer capital accumulation.

Nowhere is this clearer than in **Africa**—home to the youngest and fastest-growing populations. By the end of this century, Africa's share of the global population is set to reach close to 40 percent.

THE AFRICAN CENTURY

Population in billions



Sources: HYDE; Gapminder; and UN.



At the opposite end of the spectrum are regions such as Europe and East Asia, where populations are rapidly ageing—and some are even shrinking.

We can also make opposites attract. We can find ways to better connect Africa's **abundant human resources** with the **abundant capital** in advanced economies and major emerging markets.

How can we ensure that capital flows in the right direction? For African countries, the key is to attract long-term investors and ensure stable trade flows.

This means promoting better growth: from improving the business environment, to raising more revenue, and weeding out inefficient spending. For countries that are already facing strained budgets and high debt, this would create more room for vital social spending.

Just one example from [IMF research](https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/09/15/Building-Tax-Capacity-in-Developing-Countries-535449) (<https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/09/15/Building-Tax-Capacity-in-Developing-Countries-535449>): by building tax capacity, low-income countries could boost their annual budget revenues by up to 9 percent of GDP—a big increase that would bring their tax effort into line with emerging-market economies.

This is where the global financial safety net is crucial. And this where the IMF plays a crucial role—as the insurer of the uninsured.

If the right kind of international support can be combined with the right kind of domestic policies, we could see Africa attracting long-term flows of investment, technology, and know-how.

And this could unlock the full potential of its young people.

The result? It would mean more jobs and less outward migration in Africa; higher returns on capital that could be used in advanced economies, including to make their pension systems more sustainable; and overall, a more dynamic global economy.

In short: a prosperous world in the coming century requires a prosperous Africa.

4. Conclusion: A 21st Century Multilateralism

Investments in these three key areas—technology, climate, and people—are critical. But again, we cannot do it without cooperation.

Keynes gave us a framework—a ‘multilateralism for the 20th century’ that served us well. Now we must update it for a new era.

What would a ‘**21st-century multilateralism**’ look like? Let me suggest a few basic principles:

- It would be more representative, with a better balance between advanced economies and the voices of the emerging and developing countries.
- It would be more open and ‘listening’—not only to official but also non-official voices, those of communities and social organizations based on common interest.
- It would be more results-oriented, with more concrete deliverables—which would reinforce the benefits of cooperation, both economic and social.

Updating the multilateral framework also means updating multilateral institutions, including the IMF.

If Keynes were to visit the Fund today, I suspect he might be surprised by how much we have changed in scale, scope and character.

Just since the pandemic, we have provided about \$1 trillion in liquidity and financing to our 190 member countries. We introduced programs for emergency financing and direct debt relief for our poorest members. And our macroeconomic work now includes a focus on climate, gender, and digital money.

We are the only institution in the world empowered by our members to carry out regular “health checks” of their economies. Providing impartial analysis and advice is critical, especially in a world of fake news and political polarization.

We also recognize the need to put in place better measurement of wealth that goes beyond the traditional GDP, that values not only produced capital, but also nature, people, and the fabric of societies.

I hope Keynes would approve of a “global balance sheet” that includes an expanded set of assets and recognizes the valuable services provided by the environment, the value of the knowledge and ingenuity embodied in people and the value of good governance.

And he might be astonished to see so many women, including in positions of power.

I think he would like what he sees and would encourage us to go even further as a global “**transmission line**” for sound economic policies, financial resources, knowledge—and as the ultimate platform for global economic cooperation.

This remains the “special ingredient”. We cannot have a better world without cooperation. On this most fundamental of points, Keynes was again right!

He is perhaps best remembered for something he wrote in 1923: “*In the long run, we are all dead*”—by which he meant the following:

Instead of waiting for market forces to fix things over the long run, policymakers should try to resolve problems in the short run. It’s a call to action, a vision of something better and brighter.

And it's a call to which I for one am determined to respond — to do my part for my grandchildren's better future.

Because, as Keynes put it in 1942: "*In the long run almost anything is possible.*"

Thank you.