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How our interconnected world is changing

What's the fate of globalization? New research breaks down changes in the global flows that bind us together—and what those changes mean for our collective future.

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Globalization isn't going away, but it is changing, according to recent research from the McKinsey Global Institute (MGI). In this episode of *The McKinsey Podcast*, MGI director Olivia White speaks with global editorial director Lucia Rahilly about the flows of goods, knowledge, and labor that drive global integration—and about what reshaping these flows might mean for our interconnected future.

After, global brewer AB InBev has flourished in the throes of what its CFO Fernando Tennenbaum describes as the recent "twists and turns." Find out how in this excerpt from "How to thrive in a downturn: A CFO perspective," recorded in December 2022 as part of our *McKinsey Live* series.[1]

The McKinsey Podcast is cohosted by Roberta Fusaro and Lucia Rahilly.

This transcript has been edited for clarity and length.

Globalization is here to stay

Lucia Rahilly: Pundits and other public figures have wrongly predicted the demise of globalization for what seems like years. Now, given the war in Ukraine and other disruptions, many are once again sounding its death knell. What does this new MGI research tell us about the fate of globalization? Is it really in retreat?

Olivia White: The flows of goods, the real tangible stuff, have leveled off after nearly 20-plus years of growing at twice the rate of GDP. But the flows of goods kept pace with GDP and even rose a little bit, surprisingly, in the past couple of years. Since GDP has been growing, that means actual ties have gotten stronger.

One of the most striking findings from this research was that flows representing knowledge and know-how, such as IP and data, and flows of services and international students have accelerated and are now growing faster than the flow of goods. Flows of data grew by more than 40 percent per annum over the past ten years.

Lucia Rahilly: Goods are a smaller share of total flows, a smaller share of economic output, than in the past. That doesn't necessarily sound like a bad thing. Could it be a sign of progress?

Olivia White: The fact that certain goods are growing less quickly than other types of flows shows this shift in our economy and what's most important to the way the economy functions. It comes on the back of a long history of different factors that influence growth and shifts in the way patterns work. What's happening, in part, is that a variety of countries are producing more domestically—first and foremost China. That has been driving a lot of the flow down, if you take the longitudinal view, over the past ten years versus before.

The world remains interdependent

Lucia Rahilly: How interdependent would you say we are at this stage? Could you give us some examples of the ways we're interconnected?

Olivia White: The top line is, every region in the world depends on another significant region for at least 25 percent of a flow it values most.

In general, regions that are manufacturing regions—Europe, Asia–Pacific, and China, if we look at it on its own because it's such a large economy—depend very strongly on the rest of the world for resources: food to some degree, but really energy and minerals of different sorts. I'll give you a few examples.

China imports over 25 percent of its minerals, from places as far-flung as Brazil, Chile, and South Africa. China imports energy, particularly in the form of oil from the Middle East and Russia. Europe is emblematic of these forms of dependency on energy. It was dependent on Russia for over 50 percent of its energy, but now that has drastically changed.

In some other regions in the world—places that are resource rich, like the Middle East, sub-Saharan Africa, and Latin America—those places are highly dependent on the rest of the world for their manufactured goods. Well over half the world's

[1] Please note that market conditions may have changed since this interview was conducted in December 2022.

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–Olivia White

population lives in those places. They import well over 50 percent of their electronics and similar amounts of their pharmaceuticals. They are highly dependent on other parts of the world for things that are really quite critical to development and for modern life.

North America is somewhat of a different story. We don’t have any single spot of quite as great a dependency, at least at the broad category level. We import close to 25 percent of what we use in net value terms across the spectrum, both of resources and of manufactured goods.

This doesn’t yet speak of data and IP, where, for example, the US and Europe are fairly significant producers/exporters. A country like China is a very large consumer of IP.

Lucia Rahilly: How interdependent are we in terms of the global workforce?

Olivia White: This is quite striking. We asked how many workers in regions outside North America serve North American demand. And we asked the same question for Europe. It turns out that 60 million people in regions outside North America serve North American demand, and in Europe the corresponding number is 50 million.

These numbers are very substantial versus the working populations in those countries. So when you consider how much of what North Americans or Europeans are consuming could be produced onshore, by onshore labor, the answer is not even remotely close to those sorts of numbers—at least given the means of production or the way services are delivered today and the role people play in that.

Lucia Rahilly: Let’s turn to some of the categories of flows that have increased in recent years. What’s driving growth in global flows now that the trade in goods has stabilized?

Olivia White: Flows linked to knowledge and know-how. Knowledge services that have historically grown more slowly than manufactured goods and resources, with increased global connection over time, have flipped over the past ten years.

Professional services, such as engineering services, are among those more traditional trade flows that have been growing fastest, at about 6 percent a year, versus resources, which have slowed to just around two percent. Anything that involves real know-how—engineering, but also providing, say, call center support—is in that category.

The flows of IP are growing even faster. Now, IP is tricky because accounting for it is a very tricky thing to do. But it roughly looks at flows of the fun stuff. In the report we talk about *Squid Game*, but IP also includes movies, streaming platforms, music, and any sort of cultural elements that we consume.

It's also important to consider flows of patents and ideas and the way countries or companies will use ideas or know-how developed in one country to help what they do broadly across the world. Those flows have been growing at roughly 6 percent per year as well.

There are data flows—the flows of packets of data. For example, if we were in different countries while conducting this interview there would be the flows between us. There are also flows linked to our ever-expanding use of cloud and data localization. Data transfer is happening more and more quickly.

The flows of international students have also been rising. That was mightily interrupted by the pandemic, for reasons I don't need to belabor, but these flows seem to be rebounding. It's important to consider the degree to which those will jump back on their accelerated growth trajectory.

How COVID-19 has affected global flows

Lucia Rahilly: You mentioned flows of international students dropping off during COVID, for the obvious reasons. Did other flows generally drop off during the pandemic? Or were there examples of flows that were particularly resilient throughout that period?

Olivia White: There's some variation, but many flows were remarkably resilient—resilient in a way that's a bit counter to the general narrative about what happened during the pandemic.

The flows of resources and manufactured goods jumped reasonably significantly in 2020 and 2021, both to levels of about 6 percent per year on an annualized basis. To some degree, what was happening is that cross-border flows stepped in to replace interrupted domestic production. Flows from Asia came in, for example, to the US or to Europe. We've seen some flows go in reverse directions. There was a bunch of interruption in domestic production, which was quite surprising.

Flows of capital also jumped quite a lot as people needed to shift the way they were financing themselves. Multinationals needed to shift the way they were financing themselves. Some were moving liquidity to different parts of the world under times of financial stress. But those jumped to levels of growth in the tens of digits from what had actually been reversed growth for the past ten years. All those things jumped. IP jumped a little bit; data remained high. So these flows have been remarkably resilient.

The good and bad news about resource concentration

Lucia Rahilly: You invoked concentration a bit when you talked about Europe being dependent on Russia for 50 percent of its energy. Can you say a bit more about what concentration means in this context and how it affects the dynamics of the way we're connected globally?

Olivia White: From the global perspective, there are some products that truly originate in only a few places in the world, and all of us across the globe are dependent on those few places for our supply. Iron ore is quite concentrated, and cobalt is concentrated in the DRC [Democratic Republic of the Congo].

The second type of concentration is viewed from the standpoint of an individual country. Lucia, you talked about Europe and gas dependency. For example, Germany was getting gas from only a very concentrated set of sources. These are places where, for a variety of reasons, countries have built up dependencies on just a small number of other countries.

Why has this happened? Why are we in this position? Cost is one reason. People have made decisions based on economic factors. Another reason is regional preference. Not all goods are created equal, even if they fall in the same category.

The third reason is preferential trade agreements between different countries or other forms of tariffs or taxes that shape the way flows occur. We're in a world in which suddenly people are realizing they have to contemplate the consequences associated with concentration—not of suppliers, but of the country of origin from which they're buying things.

Lucia Rahilly: It sounds like concentration also increases efficiency in some cases where those disruptions don't occur. Is concentration always a bad thing? If we rethink concentration, can we expect to see some loss of efficiency in the interim?

Olivia White: No, it's not always a bad thing. But there are a lot of considerations to make that involve costs, involve geopolitical relationships, involve the role that various countries want to play themselves, how they're thinking about development, how they're thinking about their workforces. All those things have to be part of the mix.

Imagine three or four different countries, each with three trading partners, and they're largely different trading partners. Swapping off who's supplied by whom is a huge problem of coordination.

How global chains will evolve

Lucia Rahilly: Geopolitical risks have obviously trained a policy spotlight on reimagining these global value chains, whether for security reasons or to strengthen resilience more generally. Accepting that the world remains interdependent, how do we see trade flows continuing to evolve in coming years?

Olivia White: Broadly speaking, there are four categories of potential evolution. Semiconductors are most prominent in public discussion. Electronics, more broadly, is one of the fastest-moving value chains since 1995, with 21 percentage points of share movement per decade. Pharmaceuticals and the mining of critical minerals are other examples. And they will be part of what shifts the way that flows crisscross the globe.

Second category: textiles and apparel. This category is not as sensitive in a geopolitical sense as some of the things I was talking about before. This category is one where you actually do have new hub creation right now. Consumer electronics, other forms of electric equipment that aren't particularly sensitive, possibly fall in that category too.

Third category: IT services and financial intermediation or professional services. That will reconfigure the ways in which services flow.

Fourth and finally, there's the stuff that's just going to be steady—food and beverages, paper and printing. There's no particular reason to expect that there are strong forcing mechanisms that will change the way those things are flowing across the world right now. They're things that have remained relatively steady for the past ten or more years.

Global flows are necessary for a net-zero transition

Lucia Rahilly: Do we have a view on whether the evolving state of global flows is helping or hindering the net-zero transition?

Olivia White: The way I'd put it is, there is no way we move quickly toward a net-zero transition without global flows. There are certainly things about global flows that are tricky from a net-zero perspective. It costs carbon to ship things and move things a long way. But in order for net zero to be attainable, we need to make sure that energy-generating technologies and fuels are able to flow across the world.

Energy-generating technologies include both the minerals that underpin construction of those technologies and the actual manufacturing. So, in the first category, think nickel and lithium. In the second category, think about the actual manufacturing of solar panels. The minerals themselves are processed in only a few countries around the world. So people are going to have to move them from one place to another. Maybe the world could have broader diversification of such things, but on average, the timeline from discovering a mineral to being able to produce it at scale is well in excess of 16 years. If we want to move fast, we have the luxury to move things across the world. Meeting cost curves for manufacturing at scale and in locations where you have at least some established presence is going to be important.

The final element that's crucial with respect to net zero is cross-border capital flows. It's really important that developing countries are able to finance shifts in the way that energy is produced and consumed in their countries, which means they may have to both spend more, at least as a ratio of GDP, and have less ability to spend, given other forms of development imperative.

Multinationals and global resilience

Lucia Rahilly: What's the role of major multinational companies as we look ahead toward reimagining the future of our global connectedness?

Olivia White: The first thing that needs to be recognized is that major multinational corporations play an outsize role in global flows today. Multinationals are responsible for about 30 percent of trade. They're responsible for 60 percent of exports and 82 percent of exports of knowledge-intensive goods. So they disproportionately drive flows, especially the ones associated with knowledge. And therefore, they're going to be the center of managing for their own resilience, but also in a collective sense, for the resilience of the world.

The future of global flows

Lucia Rahilly: The media tends to focus on what some see as globalization's imminent demise. Accepting that global ties continue to bind and connect us across the world, it's also natural for folks to have pretty strong reactions to these intense and ongoing global disruptions that we've experienced in recent years. How would you sum up the way we think about the future of globalization at a high level?

Olivia White: The world we live in right now is highly dependent on flows. Will those flows reconfigure and shift? Yes, absolutely. They have in the past, and they will in the future.

Lucia Rahilly: Do we see anything in the research to indicate that the world is actually moving toward decoupling, which is also very much part of the media narrative?

Olivia White: If you look along regional lines, individual regions can't be independent. If you just start to play with what sorts of decoupling of regions would be possible, you see very quickly that it's not something you can do.

Now, is it possible that you would get groups of countries that become more strongly interconnected among themselves and less strongly connected with others? Absolutely. It's possible to move in that direction. The question becomes, is there an actual decoupling, or do you just have a shift in degree? As with most things in the world, the answer tends toward the shift in degree rather than an abrupt or sharp true change or decoupling.

Lucia Rahilly: Does greater regionalization improve resilience?

Olivia White: To some degree you can say, "Look, if I'm self-sufficient, I'm more resilient." On the other hand, all of a sudden you depend on yourself for everything, and that's a point of vulnerability in the same way that getting it only from one other person would be a problem.

There are a whole host of reasons some degree of regionalization might help. You've got things closer to you. But dependency just on a few sets of people, whether or not they're in your region, means you've got dependency on just a few points of potential weaknesses rather than a broad web, which in general is a more resilient and robust structure.

Lucia Rahilly: Thanks so much, Olivia. That was such an interesting discussion.

Olivia White: A real pleasure, Lucia. Thank you.

Roberta Fusaro: One example of resilience is AB InBev. Here to talk about how it's prospering in the face of worldwide disruption is its CFO, Fernando Tennenbaum. This excerpt, "How to thrive in a downturn: A CFO perspective," from our McKinsey Live series, was recorded in December 2022.

Lucia Rahilly: Fernando, we're confronting an unusual constellation of disruptions: inflation, high interest rates driving up the cost of capital, geopolitical turbulence unexpectedly upending supply chains and sending energy prices spiking—it's genuinely a volatile moment. Tell us, how is AB InBev faring in the current context?

Fernando Tennenbaum: We're fortunate to be in a resilient category. Despite these twists and turns in different parts of the world, beer sales have been quite strong. That said, inflation has turned out to be much higher than expected.[1] We need to ensure our operations are in sync with the market, to meet this unique moment. We need to understand the state of the consumer and adjust our operations accordingly.

In emerging markets like Latin America and Africa, inflation is not new news. There are different levels of inflation, but inflation has been a part of these economies for a very long time. Consumers are more used to it, companies are more used to it—and it's probably a more straightforward discussion.

Lucia Rahilly: You've spent much of your career in Latin America where, as you said, inflation has historically been much higher and more volatile than in the US or in Western Europe. Walk us through some of the lessons that we in the US, for example, could learn from.

Fernando Tennenbaum: Make sure that you're always looking at your customers, and that you're always keeping up with inflation. You should avoid lagging too much, and you should avoid overpricing compared with inflation. If you do too little or too much, you start disturbing the health of the consumer. If you get it right, it's probably a good thing for the business. You have to make sure you navigate the rising cost environment while ensuring that the consumer is in a good place, your product is in a good place, and the category is a healthy one. It's a balancing act.

Lucia Rahilly: AB InBev has a diverse portfolio of brands. Volumes are good. Are customers trading up or down, during this period, between your premium and mass-market brands?

Fernando Tennenbaum: Premiumization continues to be a trend, and consumers continue to trade up to premium brands. Over the course of this year, people often asked whether consumers were trading down—and we see no evidence of trading down. That is true for the US, that is true for Africa, and that is true for Latin America—which is quite unique.

I don't know if the future will be different; the world is changing so fast. But if you were to ask me ten years from now, I'd expect premium to be even bigger than it is today.

Lucia Rahilly: Let's talk about uncertainty. The economy could play out in many different ways. How do you manage for that?

Fernando Tennenbaum: Let's take our debt portfolio. Now is the moment that interest rates are going up. Inflation and borrowing are going up. Overall, this tends to be bad news—but for us, it's quite the opposite because we don't have any debt maturing in the next three years. We prepared for this when we saw the world going to a very different place at the beginning of 2020.

We ended up raising some long-term debt and repaying all our short-term debt. Now we're left with a debt portfolio that has an average maturity of 16 years and no meaningful amount of debt maturing in the next three years—all at a fixed rate. Since we don't need to refinance, we're actually buying back our debt. Rising interest rates can be good when you can buy back debt cheaper than it cost to issue.

Lucia Rahilly: You became CFO at AB InBev in 2020, when pandemic uncertainty was at its peak. Talk to us about how you navigated that period.

Fernando Tennenbaum: The first thing we did in 2020 was pump up our cash position. Not that we needed it, but I felt it would give operations peace of mind. To be prepared, we started borrowing a lot of money. And we started taking care of our people. We needed to make sure our people were safe—that was priority number one.

[1] Market conditions may have changed since this interview was conducted.

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—Fernando Tennenbaum

Once we made sure our employees were safe, our operations were safe, then we looked at opportunities and started to fast-forward. I remember we looked at May, for example, and started to see a lot of markets doing well in terms of volume. We had a lot of cash. We started buying back some debt, especially near-term debt, to create even more optionality for the future.

We also accelerated our digital transformation. The moment was uniquely suited for it. Digital was a much better way to reach customers at a time when everybody was afraid to meet in person. In hindsight, the company ended up in a much better place today than it was three years ago—in terms of our portfolio, our digital transformation, and even financially—because we acted very quickly and created a lot of optionality during the first few months of the pandemic.

Lucia Rahilly: Any mistakes to avoid?

Fernando Tennenbaum: Looking back, I wouldn't have done anything massively different. If I had known the outcome, I might have done things differently. But without knowing the outcome, I felt that the way we managed and the optionality we created set us up well.

Lucia Rahilly: Brewing is such an agriculturally dependent business, and agriculture has been significantly disrupted, both because of the war in Ukraine and because of climate-related risk. As CFO, how do you think about sustainability in terms of longer-term value creation?

Fernando Tennenbaum: Sustainability cuts across the whole of our business. We have a lot of local suppliers—20,000 local farmers. Our brewing processes are natural. The more efficient we are there, the more sustainable we are and, actually, the more profitable we are. We have local operations, and we sell to the local community. And most of our customers are very small entrepreneurs. The more we help them, the better they can run their business. And we say beer is inclusive because we have two billion consumers.

Lucia Rahilly: Is packaging also part of the sustainability approach?

Fernando Tennenbaum: Definitely. For example, we have returnable glass bottles. That's very efficient, very sustainable, and from an economic standpoint, that's probably the most profitable packaging we have. It's also the most affordable for consumers. So it's good for us, good for the environment, and good for the consumers.

Lucia Rahilly: You said beer is inclusive in part because so many of us drink it. How else do you approach inclusion at AB InBev?

Fernando Tennenbaum: Our two billion consumers are very different from one another. We need to make sure that, as a company, we reflect our consumers.

Whenever we look at our colleagues, we need to make sure they reflect the societies where we operate—and we operate in very different societies.

A diverse and inclusive team is going to be a better team. That also applies to our suppliers. For example, if you think about suppliers in Africa, some are very poor. They manage to get access to technology, which means we can track whether they're receiving the funds we pay them. We can track where agricultural commodities are being sourced. So how we financially empower them is also a very important part of our sustainability strategy.

Lucia Rahilly: Looking ahead, how are you thinking about innovation and investment in technology, in order to enable growth?

Fernando Tennenbaum: Innovation is a key component of beer, and there are two sides to that. One is innovation in products. The other is packaging. In Mexico, for example, we have different pack sizes for different consumption occasions and consumer needs.

Beyond that, there's also technological innovation. Take our B2B platform, which we started piloting in 2019. Now, three or four years later, we have around $30 billion of GMV [gross merchandise value] in our e-commerce platform, which is accessible in more than 19 countries. That's the optimal portfolio to improve customer engagement at their point of sale. Before we launched our B2B platform, we used to spend seven minutes per week interacting with our customers. Today, with our B2B platform, we interact with them 30 minutes per week. We increased the number of points of sales. For example, in Brazil, we used to have 700,000 customers, and now we have more than a million customers. Previously, they were buying our products from a distributor. Now we can reach them directly with the B2B system in place.

This connection with our customers means we can do a lot of other things, like our online marketplace, where third-party products generated an annualized GMV of $850 million, up from zero four years ago. That marketplace now continues to grow and to deliver a lot of value for our customers and for ourselves.

Lucia Rahilly: One more question: If you could give one piece of advice to a brand-new CFO of a large, multinational corporation, what would it be in this market?

Fernando Tennenbaum: Make sure you plan for different scenarios. The world is moving very fast, and you can't expect it to unfold in a certain way. But if you have options, are agile in making decisions, and have a very engaged team, then regardless of the twists and turns, you are able to meet the moment. And you are definitely able to deliver on your objectives.

Lucia Rahilly: I lied. I'm going to ask you one more. How do you see, for these new CFOs, the relationship between sustainability and inclusivity and growth? Do you see those in tension?

Fernando Tennenbaum: There is this myth that you are either sustainable or profitable. At least at AB InBev, we're sure they go hand in hand. The more sustainable you are, the more profitable you are, and the more value you create for your different stakeholders.

Fernando Tennenbaum is the CFO of Anheuser-Busch InBev. **Olivia White** is a director of the McKinsey Global Institute and a senior partner in McKinsey's Bay Area office. **Roberta Fusaro** is an editorial director in the Waltham, Massachusetts, office, and **Lucia Rahilly** is global editorial director and deputy publisher of McKinsey Global Publishing and is based in the New York office.

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