2024 Public Sector

Perspectives

How Global Development Finance Institutions Can Solve the Local Currency Lending Conundrum

AI in the Public Sector

De-Risking Emerging Market Hard Currency Debt

Contents

4 **Welcome**
Julie Monaco

6 **How Global Development Finance Institutions Can Solve the Local Currency Lending Conundrum**
Stephanie von Friedeburg, Dustin Ling, Santiago Silva Restrepo and Isobelle Lang

12 **Building Resilience Against Future Loss and Damage Through Climate Adaptation**
Peter Sullivan, Andrew Park and Ana Holzbacher Trius

18 **Open Finance in Latin America: The Key to Unlocking Opportunity**
Peter Langshaw, Montserrat Garrido, Liza Niño and Alfredo Martinez

24 **Bolstering Intra-Africa Trade Flows Amidst the Current Global Scenario**
Peter Sullivan, Andrew Park and Josefina Rochette

30 **AI in the Public Sector: Facilitating Engagement, Improving Enablement and Enhancing Risk Management**
Gary Schneider and Prag Sharma

36 **Asset Monetization: A Paradigm Shift Unlocking the Value of Public Sector Assets by Tapping Private Capital and Operational Efficiencies**
Nicholas de Callatay, Santiago Silva Restrepo and Marieta Zbojovska

42 **Supranationals: Shared Service Centers and Digitization Can Be Transformational**
John Finnigan, Dustin Ling and Kasra Sharif

48 **Public Pension Funds: Seven Steps to Operational Alpha**
Michael Paulus, Winnie Zhang and Tobias Cheung

56 **De-Risking Emerging Market Hard Currency Debt**
Valentina Antill, John Finnigan, Maryna Asipchuk and Alfredo Martinez

64 **Account Verification: A Must Have for the Public Sector**
Gary Schneider and Joseph Polselli

68 **World Vision's Global Treasury: A Tool Supporting Transformation**
John Finnigan and Chris Tynan

74 **The Currency Switch: How the Expansion of Local Debt Markets Has Provided Greater Financial Stability to Latin America**
Joaquin Jugo, Ruben Ceballos, Cindy Morand, Lucia Cardenas and Reid Fennerty

Welcome

to Citi Perspectives for the Public Sector

As we usher in 2024, the global economy continues to face challenges, both as a result of higher interest rates and uncertainty about how long they will endure. Economic growth is markedly uneven around the world and some developing countries face difficulties in managing their debt burdens in this new era. These challenges are compounded by the pressing demands of the climate crisis and the need to invest in a more sustainable economic model. Ongoing geopolitical tensions – and the potential for disruptive shocks – add further pressure.

However, against this backdrop, a positive shift is underway. Governments, NGOs, and multilateral organizations are broadening their horizons beyond immediate crises, and partnering with the private sector to craft pragmatic strategies for a brighter future. Most significantly, the United Nations COP28 climate talks achieved an historic consensus on the need to "transition away" from fossil fuels and ramp up renewable energy in order to meet net zero emissions targets. The COP28 agreement on a Loss and Damage Fund is also a major breakthrough, fostering measures that will enhance climate resilience among the world's most impoverished and vulnerable nations.

In diverse arenas, original perspectives are laying the groundwork for increased prosperity. Development finance, a pivotal force propelling economic progress in developing countries, stands poised to play a critical role in mitigating the impact of climate change in the Global South. Strengthening collaboration between governments, the private sector, and financial markets could amplify the investing power of development finance institutions while mitigating risks for borrowers in emerging markets. At the same time, innovative sustainability and outcome-linked financing tools are emerging, which leverage the voluntary carbon credit markets, for instance. The challenge in 2024 will be to mobilize private capital by scaling such innovations to achieve common goals.

Latin America, in particular, exemplifies the transformative power of innovation to stimulate commerce, economic growth, and competitiveness. Open Finance initiatives are sweeping through the region, enhancing the efficiency of financial ecosystems and advancing efforts to bolster financial inclusion. Brazil's Open Finance program, integral to a comprehensive financial services modernization effort, underscores the significance of clear governance, strong leadership, robust security measures, and meaningful public-private partnerships.

Governments worldwide are embracing fresh ideas to address enduring challenges. Faced with aging populations, many nations are committed to ensuring citizens have ample resources for a fulfilling retirement. While investment-related gains remain central to this objective, enhancing operational efficiency is equally crucial. Public pension funds, through optimized bank and custodial relationships and the strategic deployment of technology, can elevate visibility and control, curtail costs, and mitigate risks – yielding enduring benefits for their citizens.

In our era of rapid technological advancement, the accelerating pace of change is a constant: many of us have marveled at recent advances in artificial intelligence (AI) in the past year. Beyond their role as regulators, governments are recognizing the potential of AI to transform their functions. While policies and governance are key to building trust and reducing bias, harnessing AI can empower governments and public sector entities globally. It not only strengthens accountability and responsiveness but also enhances convenience for citizens and businesses, ushering in a new era of positive change.

The 2024 Citi Perspectives for the Public Sector showcases our expertise across a range of topics, offering insights into global trends while providing practical guidance and emphasizing tangible instances where our solutions have had a meaningful impact. We trust that you find these articles engaging and would welcome your feedback on the issues raised. Please also let us know what topics you would like to see featured in upcoming editions.

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6

Multilateral development banks (MDBs) and other development financial institutions (DFIs) are at the forefront of addressing these global challenges. They have long occupied a central position in funding and catalyzing investments to facilitate projects in the developing world.

How Global Development Finance Institutions Can *Solve the Local Currency Lending Conundrum*

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Global development finance is critical to emerging market countries. But most lending is in foreign currency, creating risks that are hard for borrowers to mitigate. Local currency lending, which is achievable by partnering with global commercial banks for strategic on-lending solutions, offers an efficient and more effective alternative.

The world faces multiple crises. The outlook for economic growth remains tepid, many countries face historically high inflation, and the repercussions of Russia's invasion of Ukraine continue to ripple through the energy markets. At the same time, the catastrophic impacts of climate change are becoming more evident, with devastating fires in Hawaii, floods in Pakistan, earthquakes in Morocco and record-breaking heatwaves in southern Europe. The need for sustainable development has never been greater.

Central banks and ministries of finance simply cannot provide the scale of financing needed to address the world's overlapping crises. Reconstruction costs in Ukraine are likely to be up to $750 billion[1] while the Sustainable Development Goals (SDGs) funding gap is $3.7 trillion, for example.[2]

Multilateral development banks (MDBs) and other development financial institutions (DFIs) are at the forefront of addressing these global challenges. They have long occupied a central position in funding and catalyzing investments to facilitate projects in the developing world. Their technical expertise and experience are critical to tackling a wide spectrum of issues, from enhancing government reforms and improving service delivery to advancing infrastructure development and helping to build more sustainable and inclusive economies.

[1] https://www.reuters.com/world/europe/ukraine-needs-750-bln-recovery-plan-prime-minister-says-2022-07-04/

[2] https://www.unpri.org/sustainable-development-goals/closing-the-funding-gap-the-case-for-esg-incorporation-and-sustainability-outcomes-in-emerging-markets/9430.article

Mobilizing finance in local currencies is a solution that delivers financial stability by reducing risk, aligns with responsible banking practices, and has the potential to help countries achieve their SDGs.

Local currency lending delivers big benefits

An estimated 80%-90% of development finance lending occurs in foreign currency.[3] While this lending is invaluable, it exposes projects to substantial foreign currency (FX) risk. Should a local currency depreciate against the lending currency, the debt burden is effectively increased, creating challenges for borrowers without corresponding foreign currency revenues. This phenomenon has been a hallmark of various debt crises, including the ongoing debt stress in several nations such as Sri Lanka and Zambia.

FX risk impacts all projects – and ultimately increases overall project risk, which deters investors and prevents the scaling of development finance from billions to trillions. It also has several repercussions for small and medium-sized enterprises (SMEs). These companies constitute the lifeblood of numerous emerging market economies, employing approximately 60% of the population.[4] Many SMEs have local currency-denominated cash flows and lack the in-house capabilities to effectively manage FX risk using hedging tools.

Facilitating financing solutions that mitigate such risks is therefore paramount – especially in emerging markets where financing solutions in local currency can be most impactful. Mobilizing finance in local currencies is a solution that delivers financial stability by reducing risk, aligns with responsible banking practices, and has the potential to help countries achieve their SDGs.

Local currency lending can mitigate the volatility of debt burdens and ensure a more stable and sustainable financial landscape for borrowers. Supplying clients with local currency lending is not only a fair and equitable approach but also an efficient one. It empowers borrowers to navigate their financial obligations with greater confidence, fostering economic stability and resilience in the face of external shocks. Given the anticipated ramp-up in SDG financing, the scaling of MDB/DFI local currency lending in key sectors is especially important.

[3] Kapoor, Hirschhofer, Kapoor, and Kleiterp, 2021
[4] World Bank

Accelerating local currency solutions

Commercial banks have an important role to play in helping MDBs and DFIs to increase local lending, especially global institutions that have a presence that aligns with their geographical focus. Relevant expertise and capabilities and a proven track record and commitment to development initiatives are also important. For example, Citi's has committed to a $1 trillion sustainable finance target by 2030 to support the SDGs.

Citi is the world's most global bank with an on-the-ground presence in 95 countries, including in many middle- and low-income countries. As a global deposit-taking institution, Citi serves the needs of multinational corporations, financial institutions, and governments around the world. Its branches and subsidiaries play a key role in facilitating and managing local currency assets especially in developing countries across Asia Pacific, Latin America, Middle East, Africa, Central and Eastern Europe.

Citi is committed to facilitating the systematic sourcing of local currency. With access to a diversified liquidity pool, Citi is well placed to address the currency mismatch faced by MDBs/DFIs and their borrowers by providing direct lending solutions to highly-rated entities (such as the World Bank, IFC, IDB, ADB and AfDB) which can then on-lend to their borrowers in local currency.

Local currency challenges

Without the support of a global commercial bank, local currency lending presents potential challenges for MDBs and DFIs, such as:

1. **Shallow capital markets:** While some institutions may be able to issue local currency denominated bonds to raise funds to lend to local projects, emerging markets may be insufficiently deep to be cost efficient. Even if issuance is feasible, MDBs/DFIs are often required to maintain a fully dollarized balance sheet, and many emerging markets have insufficiently liquid hedging markets to facilitate this.
2. **The need to maintain a high credit rating:** If not properly hedged, local currency lending may put pressure on the creditworthiness of MDBs/DFIs, making it harder to access affordable financing in the international capital markets.
3. **Established processes, systems, and practices:** Operations tailored to foreign currency lending are difficult to adapt to local currency financing, as each local market has different laws and regulations, increasing resource requirements.
4. **An underdeveloped interest rate market:** If borrowers cannot easily engage in interest rate swaps, it is harder for MDBs/DFIs to efficiently allocate capital and promote sustainable economic growth.

Citi's approach facilitates the flow of capital where it is needed most – enabling growth and the progress of the communities the bank serves – while also bolstering the mission of MDBs/DFIs to promote sustainable development globally.

Citi can create new opportunities for MDBs/DFIs to lend in local currencies by leveraging three distinct direct local currency financing solutions:

- Single currency bilateral lending;
- Multi-currency bilateral lending;
- Syndicated financing structures for larger MDBs/DFIs.

These offerings provide MDBs/DFIs with a flexible means to source local currency that can be tailored to their short- and long-term needs while allowing them to navigate the challenges associated with foreign currency lending more effectively. Simultaneously, these solutions benefit Citi by optimizing the utilization of local balance sheets. Specifically, they release regulatory capital, as a 0% risk weight is applied to exposures to MDBs that meet rating, shareholder structure and other criteria.[5] In contrast, deploying capital against local clients or central banks may carry a higher risk weight and could therefore erode Citi's return on tangible common equity and its potential lending capacity.

Citi's approach facilitates the flow of capital where it is needed most – enabling growth and the progress of the communities the bank serves – while also bolstering the mission of MDBs/DFIs to promote sustainable development globally. While Citi cannot eliminate all of the challenges associated with local currency lending, the bank's new approach delivers significant benefits for MDBs/DFIs, their borrowers and – by extension – the sustainable development of emerging market countries. As the world navigates the complex economic, financial, geopolitical and sustainability challenges of the coming years, Citi stands ready to collaborate and drive the transition to local currency lending, ushering in a new era of sustainable development and progress for all.

[5] Source: https://www.bis.org/bcbs/publ/d424.htm

Overcoming the challenges of local currency lending

Facilitating a shift toward local currency lending requires partnership and innovation. Collaboration between MDBs/DFIs, governments, private sector partners, and financial markets in developing economies is critical.

MDBs' and DFIs' utilization of direct local currency financing from commercial banks with a global footprint such as Citi has the potential to solve for currency mismatches and align with the unique requirements of individual projects, offering a degree of flexibility that pooled capital often lacks. Direct local currency financing expands the portfolio of available options to efficiently obtain local currency beyond local bond markets (which may be insufficiently deep or liquid) and cross currency swaps (which can be expensive and inflexible). In addition, this approach can reduce brokerage costs.

Moreover, direct local currency financing solutions can be tailored to MDBs' needs in terms of size, tenor, repayment method, currency available and other terms. For instance, commercial bank lending can take the form of either a revolving credit facility (RCF) or a term loan, depending on the specific project requirements. In cases where project visibility is limited, opting for a more adaptable solution such as an RCF can be advantageous, as it establishes a framework for local currency lending.

Another crucial lesson is that local regulations play a pivotal role when extending direct local currency financing. Some countries, such as Turkey, may have regulatory requirements for commercial banks that make it difficult to provide local currency solutions for MDBs. To overcome such challenges, commercial banks and MDBs should work with governments and regulators to enhance regulation in the relevant countries in order to facilitate these solutions.

Ultimately, these efforts – and solving the local currency lending conundrum – can deliver outcomes that benefit all, fostering development for the host country, addressing the local currency needs of MDBs, allowing international banks to efficiently leverage their local balance sheets and accelerating financing for projects for last-mile borrowers, where investments and impacts are needed the most. ■

MDBs' and DFIs' utilization of direct local currency financing from commercial banks with a global footprint such as Citi has the potential to *solve for currency mismatches and align with the unique requirements of individual projects, offering a degree of flexibility that pooled capital often lacks.*

12

While climate change is a global phenomenon its negative impact is more severely felt by low-income countries where a severe lack of investment towards climate adaptation, social development and infrastructure resilience has left them vulnerable.

Building Resilience Against Future Loss and Damage *Through Climate Adaptation*

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The long-awaited Loss and Damage Fund

$313 bn[1]. While this amount would approximately correspond to Chile's GDP[2] for 2022, it also represents the economic loss caused by natural disasters worldwide for the same period. Sadly, 2023 is similarly on track to be yet another one of the costliest years for our planet. The droughts in East Africa, the record-breaking wildfires in Canada and the devastating floods in Libya are only some of the tragic events which 2023 will be remembered for.

The acceleration of natural disasters in recent years is a declaration of the direct repercussions climate change is having on our planet. While these phenomena have already increased in number and magnitude compared to a few decades ago, climate change will only continue acting as a risk multiplier, amplifying the intensity of extreme weather events, increasing their unpredictability, and exacerbating our vulnerability.

While climate change is a global phenomenon its negative impact is more severely felt by low-income countries where a severe lack of investment towards climate adaptation, social development and infrastructure resilience has left them vulnerable. In such manner, Africa has historically contributed to only a minimal small share of global greenhouse gas emissions but is now jointly bearing the cost of Europe and North America who together contributed to more than 70% of the stock of anthropogenic climate change over the past 270 years[3].

The economic impact of such natural disasters on low-income countries, often the very same countries that struggle the most fiscally and financially, forces them to choose between eradicating poverty, combating climate change or honoring growing amounts of debt. To illustrate, the IMF[4] reported that out of the 59 nations most vulnerable to climate change, a staggering 34 are also classified as having a high fiscal risk, which is often also linked with debt sustainability concerns.

[1] Aon
[2] IMF
[3] Financial Times
[4] IMF Blog

Figure 1: Fiscal risk for high climate risk countries

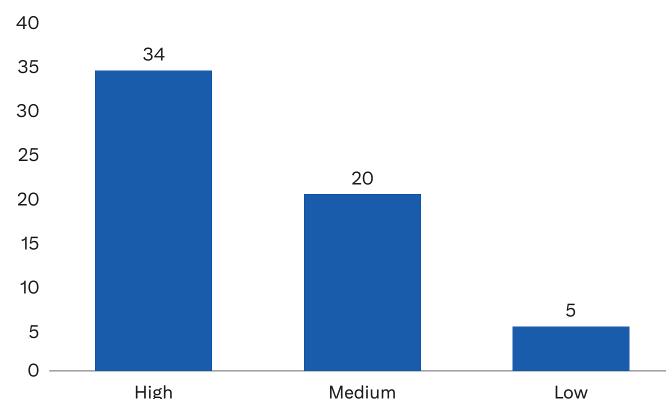

Illustration of 59 low- and middle- income countries that have climate threats at or above the median, divided into three groups based on their risk of fiscal crisis in the next two years (Source: IMF Blog)

In addition, low- and middle- income countries also suffer from a severe lack of financing, receiving the smallest share of global climate finance. In fact, Africa which has historically been substantially impacted by natural disasters only received 3% of global climate finance in 2020, out of which only 14% is stemmed from the private sector, the lowest in the world[5].

Developing countries have long been advocating for more concrete, better tailored and larger support from the international community, towards just transition. While wealthy nations pledged in 2015 to deliver a collective goal of $100 bn a year to developing countries by 2020, their target that year fell short by $16.7 bn and by some estimations this annual climate finance promise will not be met until 2025 at the earliest[6].

COP27 and specifically the announcement of the "Loss and Damage Fund", was the long-awaited conceptualization of an overdue support for low-income nations. Its mandate not only aims to provide further and more concrete assistance to deal with the consequences of natural hazards, but also to supply funds towards climate adaptation. The fund aims to assist "developing countries that are particularly vulnerable to the adverse effects of climate change"[7] both by financing harm caused by climate change and mitigation to reduce future tragedies.

[5] New African Magazine
[6] OECD
[7] UNEP
[8] OECD
[9] Global Center for Adaptation
[10] Publication Office of the EU
[11] Global Center for Adaptation

As of 2023, there is still a long path ahead until the fund becomes what it aspired it would be. Although COP27 laid the foundation of the Loss and Damage Fund, many hope COP28 will build on the actual delivery of the $100 bn funding target, shift larger financial impact, include supplementary support from multilateral development banks (MDBs) for climate adaptation and overall, initiate operationalization of the fund.

While the Loss and Damage Fund is a positive step forward towards financing climate resilience, for it to truly fulfill its mandate, clearer definitions, more stringent governance frameworks and greater transparency on the disbursements of such financing are needed.

Climate adaptation

Climate adaptation can be defined as addressing loss and damage in advance through measures to minimize future harm and by increasing resilience before the occurrence of extreme weather or slow-onset events.

While financing climate adaptation is essential to minimize the impact of climate variability and to guarantee sustainable development, a gap of financing towards climate adaptation persists. Between 2018 and 2020 only 4%, or $18 bn, of all private finance mobilized by official development finance interventions was earmarked exclusively for climate mitigation and adaptation. Private finance mobilization for adaptation only, rose from $1.9 bn in 2018 to $4.4 bn in 2020[8].

These figures fall short of the financing needed to minimize the future cost of inaction. The 2022 Adaptation Gap Report indicates that international adaptation finance flows to developing countries are five to ten times below estimated needs and will need to be over $300 bn per year by 2030[9]. Another study forecasted that with an increase of 3-4°C, financing needed could reach €175-200 bn ($185-212 bn) per year in the EU-27 and the UK only[10].

Similarly, in Africa the figures depict an even more worrisome narrative, especially given the African continent is currently the smallest beneficiary of climate finance worldwide. Investments required in the continent are expected to increase tenfold by 2035 with roughly £80 bn ($97.5 bn) a year needed until 2035, without which the continent could lose up to £4.8 tn ($5.85 tn) of economic benefits within the next decade[11].

The takeaway is that a behemoth of an investment into climate adaptation is required urgently, and not choosing to invest today will only increase the investment needed tomorrow.

When considering green investments in high-income countries, *as much as 81% of green investments are estimated to be funded by the private sector, notwithstanding this figure is a mere 14% in emerging and developing countries.*

The interlocked role of public and private sectors in financing climate adaptation

While there is a consensus that colossal investment is needed to finance climate adaptation, there is less concurrence regarding where this financing should be coming from.

When considering green investments in high-income countries, as much as 81% of green investments are estimated to be funded by the private sector, notwithstanding this figure is a mere 14% in emerging and developing countries[12]. Furthermore, cross-border flows in that field are lacking as out of global private sector investment directed to climate finance, up to 90% stays within national borders[13]. This unequal geographical distribution is compounded by broader risk aversions towards emerging and developing economies and by global economic headwinds such as inflationary pressures and debt sustainability concerns.

Regarding climate adaptation, the lack of predictable returns as well as the absence of definite pricing for the cost of inaction have historically been a source of hesitation for the private sector from investing in such projects. While it is estimated that within climate adaptation specifically, the private sector was only providing 1.6% of all funding in 2021[14], encouragingly, there is an increasing understanding that business opportunities within climate adaptation exist with expectations the market could be worth up to $2 tn per year by 2026, as the need for these solutions grow along with the prevalence of climate impact[15].

To ensure successful cooperation between public and private entities, multilateral development banks (MDBs) have a crucial role to play. MDBs should mobilize private capital directly through the provision of liquidity but also indirectly by acting as financial standards setters. MDBs can act as enablers by offering foreign currency guarantees, pooling currency risks and providing support in prioritizing those projects which could have the most significant positive impact on climate change.

The complexity of climate change finance requires a rapid and far-reaching reallocation of capital by rethinking the architecture of both the public and the private sector. The potential magnitude of loss and damage similarly necessitates multilateral development banks to help by stepping up their support for climate action.

[12] Financial Times
[13] Climate Policy Initiatives
[14] World Bank
[15] Bloomberg

"Business" and innovative solutions to the climate crisis

Other key actors at the forefront of financing climate adaptation are financial institutions that can direct capital and demonstrate to markets the opportunities, risks, and potential returns of investments. As they bring innovative tools to markets, financial institutions are pivotal in helping investments and assets support the implementation of low-carbon, climate resilient development pathways.

A range of innovative green financing instruments have been gaining momentum over recent years and are now being deployed in both developed and developing countries:

- **Green bonds** are now the major bulk of green investments having raised $351 bn in the first half of 2023 (a record six months in terms of the value) with total outstandings of Green and Sustainable issuance exceeding $3.4 tn of such capital raised from investors[16]. Similarly, **sustainability-linked bonds (SLBs)** where the issuer's debt is tied to their climate promises have also gathered investors' attention, albeit there is skepticism amidst rising greenwashing concerns. Sustainable bonds in general are reliant on their credibility and investors are urging for more aligned international standards and regulations. Different actors can help gather momentum of the said instruments to create a "circle of greater issuer and investor experience and confidence to catalyze the mobilization of finance for climate resilience action at scale"[17]. In that regard, MDBs issuing green bonds is encouraging, with the World Bank's issuance of the first Wildfire Conservation Bond in 2022 being an example[18].
- Additionally, **debt-for-climate** and **debt-for-nature swaps** can help governments with limited access to traditional grants or debt reliefs to improve climate resilience without triggering a fiscal crisis or sacrificing other development projects. MDBs can help improve the financial terms and scale up the number and size of these transactions to ensure swaps can have a tangible impact[19]. Additionally, private sector players such as NGOs and Foundations can deploy their capabilities and competencies on behalf of sovereigns to assist in the execution of investing the capital, enhancing the governance and transparency of the investments, and facilitating the disclosure of the impact of such investments. Debt related swaps are increasingly more relevant as debt relief becomes a more prominent topic amongst countries that need to create fiscal headspace for climate investments.
- Finally, **blended finance solutions** which use development capital to mobilize private capital for climate and nature are a key tool to be used in emerging market and developing countries. Blended finance configurations of concessional public funds with commercial funds can be a powerful means of de-risking investments which alter the risk-return profile in favor of climate adaptation financing.

These innovative climate finance solutions and structures demand greater governance and accountability than traditional capital market issuances. Sovereigns must develop and/or leverage existing capabilities to capture, manage and disclose data and the associated impact of deploying proceeds to access the market through these structures and solutions.

[16] Bloomberg and Dealogic as of October 9th, 2023
[17] Global Center for Adaptation
[18] World Bank
[19] IMF

Financing climate adaptation is optional no longer, as *consequences from climate change are increasingly shaping our reality* and will only be further accentuated in the coming years.

There is little doubt that traditional financing instruments such as social protection, catastrophe risk insurance and contingency finance remain key in dealing with loss and damage, but the size of investment needed will require innovative financing solutions to achieve the appropriate scale.

Conclusion

Financing climate adaptation is optional no longer, as consequences from climate change are increasingly shaping our reality and will only be further accentuated in the coming years. As the cost of inaction rises there is a stringent need to rethink the global architecture towards climate change financing. Well-thought tools are available, but their efficiency rely on the commitment of the entire spectrum of actors from private, public, to supra-national institutions towards a common objective. Climate change and climate adaptation financing must be done fairly, methodically and by utilizing all resources available to ensure a just transition. ■

18

Open finance heralds a transformative era in the financial landscape, where customer data, once confined to the vaults of banks, is now being liberated to empower fintechs, third-party service providers, and even rival banks and financial institutions, to develop innovative services and tools.

Open Finance in Latin America: *The Key to Unlocking Opportunity*

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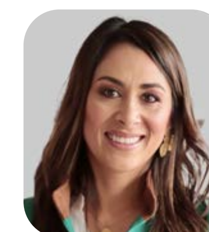

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Open Finance is an important part of the financial services modernization agenda globally. Governments around the world are increasingly prioritizing open finance and introducing legislation and regulatory frameworks to facilitate its introduction. In Latin America, adoption – provided there is a strategic focus on areas that can deliver the greatest impact and an effective implementation and deployment model – has the potential to significantly increase the efficiency of the region's financial ecosystems, boost economic competitiveness and commerce, and most importantly, accelerate efforts to improve financial inclusion.

However, to achieve these and other policy objectives, governments and regulators need to consider the benefits and disadvantages of the various approaches adopted by countries worldwide so far and take advantage of the lessons learned to maximize impact. They also need to consider the reality on the ground in their countries and adapt key elements of open finance to solve their strategic goals. While the rollout across Latin America is at differing stages, open finance is expected to become a key priority for all countries.

What is open finance?

Open finance represents a financial market revolution where customer information, previously held exclusively by banks, becomes a raw material for fintechs, third-party service providers and even other banks and financial institutions, to create new services and tools. It is a development of the concept originally known as open banking which is established in markets such as the UK, Singapore, Australia, Japan, and some countries within the EU.

The benefits of open finance

- Financial services integration and interoperability.
- Increased efficiency that benefits people, merchants, banks, fintechs and government institutions.
- Enhanced security.
- Innovation and the creation of new solutions with a value proposition for the digital economy, fueled by data, integrated experiences and a robust fintech ecosystem.
- Financial inclusion, by supporting specific business cases and delivering cost-efficient solutions for final users.
- Decreased cash use: Payment initiation features provide a convenient, frictionless user experience at a low cost, boosting the digital formal economy

The key feature of open finance is the provision of third-party access to financial data and services in a secure and standardized manner and with consumer consent. Individuals and businesses can share their financial data, such as account information, transaction history, and financial records with authorized third-party providers, and enable them to initiate payments/transactions on their behalf. While the scope of open banking is limited to banks, open finance also includes non-bank financial institutions, such as insurance companies, pension funds and investment providers. Access to data and payment initiation is typically through application programming interfaces (APIs), which are used to establish a connection between third-party providers and user's bank and/or non-bank financial institutions. This standardized connectivity facilitates quick and straightforward integration with enhanced security standards.

Open finance fosters competition by enabling third-party providers, such as account information payments providers (AISPs) and payment initiator service providers (PISPs), to access customer financial data and gain the ability to initiate payments (with the explicit consent of the individual or business account owner). This can result in innovative and customized financial products and services, such as budgeting apps, investment platforms, ecommerce solutions, forecasting solutions or loan comparison tools. By facilitating ecosystem interoperability, open finance improves efficiency, potentially lowering costs for consumers and broadening the spectrum of financial services they can access. Open finance prioritizes safeguarding, privacy and control of consumer data, and ensures secure data sharing and ecosystem practices.

The advance of open finance reflects the evolution of both consumer and corporate behavior, where there is a move towards added-value solutions, integrated experiences, real-time interactions and more cost-efficient payment/collection options, as well as consumer demands for greater transparency and lower costs.

How is open finance being developed in Latin America?

Open finance is at a relatively early stage in Latin America. However, momentum is building across the region: Brazil and Mexico are currently live with open finance models. Colombia and Chile have issued primary regulation and are now developing secondary definitions and implementation plans (which are based on a collaborative public and private approach); five other countries are at a regulatory research or proof of concept stage.

Mexico was the first Latin American country to issue primary regulation in 2018. Implementation of open finance was divided into the following phases:

1. Open/public financial data (location of ATMs, branches, financial products, and services offered);
2. Aggregated data (statistical information held by supervised entities that, due to its nature and processing cannot be disaggregated);
3. Transactional data (related to the use of financial services by consumers).

Boosting financial inclusion and economic growth

Open finance could play a potentially significant role in improving financial inclusion, which is a key issue across the region. According to the World Bank's Global Findex 2021 Database, 27% of adults in Latin America and the Caribbean do not have access to financial services, and the share of adults borrowing from a financial institution is 30%, below the average for OECD member countries.

Open finance also creates opportunities for Latin America's financial ecosystem and payments infrastructure to leapfrog multiple stages of market development. To this end, Latin America is focused on open finance rather than open banking, with a view to broadening access to finance products rather than simply bank accounts.

Ultimately, by boosting competition and innovation, open finance should accelerate economic growth. McKinsey estimates that the adoption of open-data ecosystems could increase GDP by 1% to 5%. Although McKinsey did not specifically look at Latin America, it noted that the greatest benefits are likely to accrue to emerging market countries.

While Mexico has completed its first phase, other phases have been put on hold; industry dialogue regarding payment initiation and definitions is expected in due course.

Brazil was the second country in Latin America to issue open finance regulations in 2021 and has advanced at a quick pace. It is one of the world's greatest open finance success stories with more than 38 million open finance consents (as of August 2023). Its deployment has four phases:

1. Financial institutions public data (product, services and channels): live.
2. Private data (allowing consumers, with prior consent, to share their data such as records, account transactions, card information and credit operations with institutions of their choice): live.
3. Payment initiation (Pix as a payment method on open finance rails): live.
4. Inclusion of new data that can be shared, as well as new products and services, such as the contracting of foreign exchange operations, investments, insurance, and private pensions: ongoing.

Open finance in Brazil was led by Banco Central do Brasil (BCB), which defined a clear strategy and regulatory roadmap, and adapted the concept to the needs of the country. The BCB also harmonized its strategy with other financial services modernization initiatives as Pix, the successful instant payments scheme. Having implemented several of its defined phases, it is working to stabilize open finance while seeking new opportunities and use cases, such as recurrent variable payments.

Colombia and Chile issued open finance primary regulation during 2022 and have a roadmap in place. There are also public and private collaborative spaces in place to determine the final governance model, as well as operative and technological definitions. Both countries are aiming to leverage the existing characteristics of the financial infrastructure in order to maximize the impact of open finance.

Colombia has adopted a hybrid approach, with both regulatory and market-driven elements. The regulator has prioritized payment initiation in its first stage and targeted 2024 for launch. Payment and bank data sharing will occur in a second phase, which is timetabled for 2024-2025. The third stage will cover data sharing relating to transactional financial investments, pensions and insurance. Colombia seeks to extend the concept of open finance beyond financial institutions' data. As part of its National Development Plan, the Open Data initiative targets data from telcos, public services, public sector entities and others, with a focus on facilitating financial inclusion.

A regulatory, market-driven or hybrid approach?

One key distinction when introducing open finance frameworks is between a regulatory and mandatory-driven approach (as adopted by the UK and Brazil) and a market-driven approach (as in Singapore).

In Latin America, the example of Brazil shows that there are significant benefits from a regulatory-driven model with an active role for government institutions. Crucially, Brazil required banks to develop use cases for open finance, which helped to focus minds and ensured the initiative quickly gained momentum.

In contrast, the experience in Latin America shows that purely market-driven approaches run the risk of incumbents failing to embrace open finance with enthusiasm. This is not necessarily the case in other parts of the world: mature and developed economies, with more modern financial services infrastructures, can progress well using a market-driven approach.

A regulatory driven approach should include 'smart deployment', where particular types of institutions, use cases and phases are specified as mandatory, rather than adopting a blanket approach. A one-size-fits-all mandatory model can be counterproductive in terms of efficiency, time to market and adoption. Given the significant investment required of private sector financial institutions, it is important that they retain the freedom to focus on where value can best be created and delivered. A hybrid model where participation and use cases are mandatory only where applicable to institutions is therefore likely to have the greatest potential for success in most countries.

Meanwhile, Argentina, the Dominican Republic, Ecuador, Panama and Peru have announced plans to adopt open finance; some of these countries have already begun a dialogue on market or public/private issues.

Lessons learned

When considering what to do – and what not to do – in order to maximize the impact of open finance, it is important to recognize that every country has different circumstances, needs and levels of financial services maturity. There is no one-size-fits-all model. Nevertheless, there are some broad aspects of successful open finance implementations that should be prioritized by countries:

1. Strong governance: If an open finance initiative is to gain traction, promote a reliable ecosystem, ensure sustainability and achieve open finance's goals, structure and practices relating to definitions, implementation, deployment, operation and performance are important, as are measures to foster accountability, responsiveness and inclusiveness. Having a single and specific entity that has responsibility for governance brings orchestration, efficiencies, trust, a faster time to market, and a focus on meeting defined goals.
2. Public-private collaboration: Equitable representation of ecosystem actors (government entities, banks, payment schemes, fintechs and organizations representing individuals and enterprises) is valuable in determining definitions to ensure the planned initiatives will deliver benefits for all stakeholders. Benefits may vary. For example, consumers could gain a fluid, accessible and more secure customer experience; merchants may benefit from a more efficient collection method; and government can boost digital financial inclusion and accelerate the switch from cash into the digital formal economy. Public-private collaboration can also be enhanced by a flexible regulatory environment and a financial regulatory sandbox (which has helped to drive the success of Brazil's financial services modernization, for example).
3. Strengthen security: Safeguarding, enhancing, and monitoring technical standards, the operative model, fraud management and cybersecurity are critical. It is also essential to establish a secure participant model to ensure minimum requirements are met. A centralized registry and monitoring of AISPs and PISPs has also been shown to be useful.
4. Maximize efficiencies: Isolated implementations are extremely costly so technical integration must be efficient. A single integration through a centralized entity brings economic efficiencies and speeds time to market compared to multiple implementations. Ultimately, lower integration costs can be passed on to final users to drive adoption.
5. Focus on use cases rather than functionality: It is advantageous to focus on use cases at the same time as setting out clear phases that will define open finance implementation. Use cases that generate the greatest impact in line with established open finance objectives should be prioritized.
6. Reinforce efforts to promote adoption: A variety of different approaches should be used to maximize adoption. Some aspects to consider include:
   - User experience: Having a single and streamlined user experience design for each use case brings benefits in terms of clarity, a frictionless experience and adoption.
   - Trust: Trust can be facilitated in a number of ways. A trust mark can be used covering aspects such as user control to provide and revoke consents to third parties, data privacy and protection, fraud prevention, disputes, costs, and performance.
   - Customized communication strategy for individuals and businesses: This can accelerate awareness of open finance benefits and dynamics.
   - Incentives: Establish the proper incentives for individuals, business, banks and third parties. These incentives need to be clearly articulated via a public-private dialogue.

A perspective on the evolution of open finance

If momentum towards open finance continues to build across Latin America, it will have transformative impacts on the region's economies and financial services modernization. The example of Brazil shows what can be achieved in a relatively short period of time in the region and serves as an inspiration to other countries.

Open finance is at an early stage and is a long-term project. As it evolves, a number of additional characteristics could take on greater importance:

1. Digital identity could be valuable in accelerating adoption, trust and furthering financial inclusion.
2. Open data society: Governments can encourage the opening up of additional sources of data from other stakeholders, such as telecom, utility companies, healthcare and government entities that can be used to substantiate and verify consumers' needs and behaviors, as well as drive solutions that utilize users' data. By doing this, countries will begin to move beyond open finance towards an open society based on open data.
3. Cross border open finance: While open finance initiatives in Latin America currently focus on national projects, embracing common standards across Latin American countries could unlock substantial benefits, paving the way for wider regional harmonization in the future. ■

Regional harmonization

Open finance efforts to date have focused on national projects. However, there could be significant benefits for Latin America if there are commonalities between country standards in order to facilitate future regional harmonization. As well as making implementation more straightforward for regional banks, greater standardization would lay the foundations for more efficient and lower cost cross-border payment mechanisms, which are a key goal for many governments in the region.

Promisingly, a recent report by the Inter-American Development Bank indicates that three of the five regulators and supervisors currently working on open finance across the region are interested in technical standardization for third-party providers and APIs, among other technologies for implementing open finance. Brazil is at the forefront of efforts to create common standards by opening its standards to other Latin American central banks (or equivalent government entities leading open finance initiatives), enabling them to replicate its model. Colombia's open finance plans, for instance, have adopted some features of the Brazilian system.

In addition, the fintech associations of Colombia, Peru, Mexico, and Chile have partnered to propose joint standards for open finance in Latin America.

Africa's heavy reliance on global markets and its absence of a robust intra-regional trade system make the continent more vulnerable to external crises and shocks, as illustrated by the repercussions of Covid-19 and the war between Russia and Ukraine.

Bolstering Intra-Africa Trade Flows *Amidst the Current Global Scenario*

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Deep uncertainty clouds the direction and trajectory of global trade given recent economic and political developments: Anti-globalization, economic nationalism, shifting alliances and disruptive technologies are posing unprecedented threats to global trade flows.

This is especially true for the African continent. While intra-regional trade forms the backbone of trade in Europe, Asia, and the Americas – with intra-continental trade in these regions standing at 66.9%, 63.8% and 44.4% respectively – intra-African trade represents less than 13% of Africa's total trade. Moreover, in 33 African countries intra-African trade has declined as a share of the total trade since 2012[1]. This trend has produced a region that is more integrated with the rest of the world than within its own continent.

Africa's heavy reliance on global markets and its absence of a robust intra-regional trade system make the continent more vulnerable to external crises and shocks, as illustrated by the repercussions of Covid-19 and the war between Russia and Ukraine. This vulnerability is particularly evident in the case of the Russian invasion of Ukraine, which has worsened the existing decline in food security by driving up prices for essential goods. Although prices are returning to the levels before the invasion, they remain high in comparison to five years ago, with the costs of food on average 42% higher in 2022 than in 2014-2016[2]. This serves as just one example highlighting the significance of intra-Africa trade, and how, if it were remediated, it could address one of the most pressing challenges currently faced by the continent.

While there appear to be rising risks to the established trade patterns and partnerships, there are also some encouraging developments that are generating positive momentum for intra-Africa trade flows. For example, the establishment of regional trade agreements, such as the African Continental Free Trade Area (AfCFTA), reinforces regional integration and promotes intra-Africa trade by creating a much larger market for the free flow of goods and services and act as an impetus for infrastructure investments. The tariff liberalization from AfCFTA alone is estimated to generate welfare gains of $16.1 billion and grow intra-African trade by 33% up from 15% during the transition phase alone[3]. However, there remain risks that public policymakers and private sector players need to effectively manage (e.g., infrastructure and digitization, especially in the areas of global value chains), to realize the trade potential of a region rich in natural and human resources.

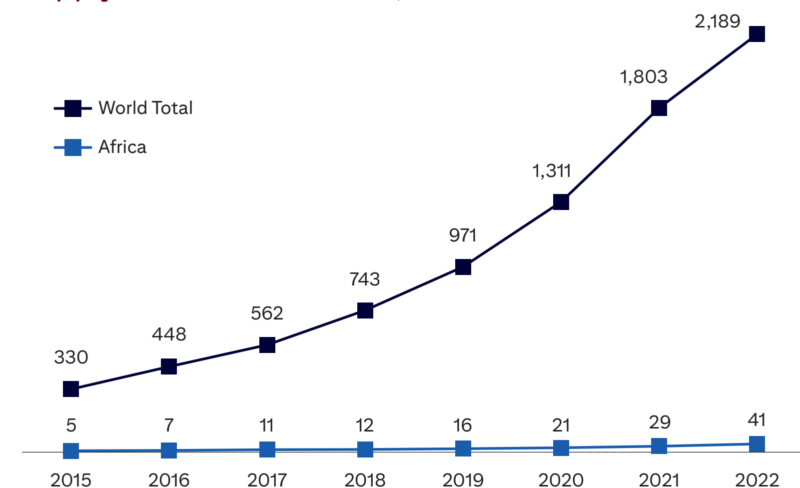
[1] Mo Ibrahim Report 2022
[2] ODI
[3] UNCTAD

Global value chains

Over the past few years, worldwide supply chains have faced significant challenges due to extraordinary trade fluctuations, economic instability, geopolitical occurrences, and natural calamities. As a result, these supply networks have experienced substantial disruptions which have prompted major participants in the production and distribution of specific goods – including manufacturers, distributors, and shippers – to reconsider strategies for enhancing the resilience of their supply chains.

In the case of Africa, recent global shocks such as the Covid-19 pandemic and Russia's invasion of Ukraine exposed the continent to record levels of uncertainty, disrupted value and reversed countries' hard-earned progress in economic and social development[4]. Africa's marginal role in production both internationally (1.7% of participation in global value chains in 2019[5]) and at the regional level as well as its participation in few resource-based and light manufacturing sectors (e.g., agri-processing, textile and clothing, and food and beverage)[6] have created immense bottlenecks and have hindered the recovery in recent years.

Supply chain finance value, USD billions



Source: UNCTAD, 2023

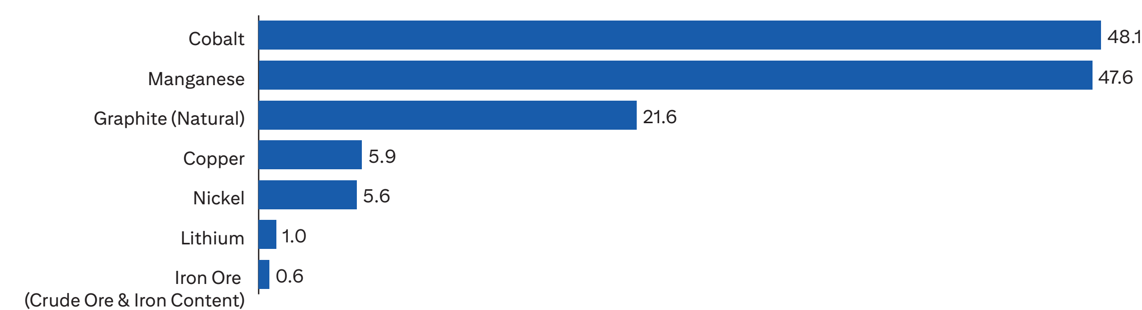
The impending resource allocation decisions to improve intra-Africa trade present a unique opportunity for the region to refresh and bolster its supply chain resilience, both at the regional, and by extension, at the global level. For instance, by streamlining supply chains and bringing sources of supply closer to the point of demand, not only can emissions be reduced but local manufacturing production can also thrive. This approach not only mitigates supply chain risks and cost complexities associated with imports but also elevates local suppliers. Moreover, it serves as a catalyst for local economic growth while simultaneously minimizing the environmental footprint associated with global logistics, aligning with sustainable and resilient trade practices in the region. By leveraging its competitive advantages, Africa can not only build resilient and sustainable value chains but also can leverage the opportunity to accelerate climate action and green investment.

[4] OECD
[5] OECD
[6] OECD

Africa boasts a wealth of comparative advantages that it can build these decisions on to position itself uniquely for a leading role in the current global landscape. One of the most significant assets is its youthful and rapidly growing population, with approximately 60% of Africans being under the age of 25. Moreover, the continent possesses extensive reserves of critical minerals, holding at least a fifth of the world's reserves in a dozen types of metal crucial for the ongoing energy transition[7]. Lastly, electricity is the backbone of the region's new energy systems, powered increasingly by renewable sources. Africa is home to 60% of the best solar resources globally, and renewables – including solar, wind hydropower and geothermal – are expected to contribute 80% of the new power generation capacity through 2030[8].

Leveraging these abundant natural resources responsibly is critical for the continent's future development. For example, by utilizing its solar and wind capacity, the commercial production of green hydrogen on the continent has the potential to produce 30-60 million tons per annum (mtpa) of green hydrogen by 2050 while creating 3.7 million new jobs and boosting the continent's GDP by as much as $60 billion to $120 billion[9].

Africa's share of global reserves, percentage



Source: UNCTAD, 2023

Africa's wealth of raw materials and immense renewable energy potential offers a chance to diversify and strengthen both regional and global supply chains by creating a new regional market for businesses and industries expanding their supply chain relationships. Likewise, pursuing an ambitious energy transition pathway could play a key role in advancing socio-economic development in the region. However, entering Africa for supply chain purposes demands significant investments in infrastructure, technology, and skilled labor. The inadequate state of infrastructure, including transport and warehousing facilities, in many African countries remains a major obstacle to efficient logistics and supply chains on the continent[10].

[7] UNCTAD
[8] IEA
[9] BII
[10] UNCTAD

Infrastructure

The quality of transportation and communication infrastructure in Africa is an obstacle for regional integration. In fact, infrastructure that is designed to facilitate international trade is much more developed than those of intra-Africa trade. In total, the continent has an average of 2.5 kilometers of railway track for every 1,000 square kilometers, lagging far behind the world average of 23 kilometers[11]. Furthermore, the poor quality of the region's roads, rail, and port infrastructure increases the costs of intra-African trade by 30 to 40%[12].

Ports are no different – poorly equipped and badly operated ports experience delays in shipment handling, long processing times and increased handling costs. African ports are 50% more expensive than in other parts of the world, according to the African Development Bank (AfDB). Additional challenges to ports stem from the lack of integrated systems of road and rail lines linked to ports[13]. For example, cargo traveling from a port to a city in a landlocked Sub-Saharan African country generally spends more of its time (75%) at the port than on the road. Likewise, cargo spends nearly three weeks on average in Sub-Saharan African ports, compared to under a week in large ports in Asia, Europe and Latin America[14]. The poor state of African infrastructure constrains economic growth by 2% every year and it is estimated that the continent needs up to $170 billion per year by 2025 to overhaul its infrastructure[15].

While there is more to be done, there is progress in some major infrastructure projects, in particular for those that span across countries, and are expected to play a crucial role in developing an interconnected Africa. A notable example includes the partnership between the UK's development finance institution, British International Investment (BII), and DP World, a leader in global supply chain solutions. The partnership, which was agreed in 2021, focuses on modernizing and expanding three ports in Dakar, Sokhna and Berbera, with further ports and logistics investments across Africa to follow. Through this collaboration, trade enabled through the three initial ports will improve access to vital goods for 35 million people, support 5 million jobs, and add $51 billion to total trade by 2035[16]. Another noteworthy instance took place in February 2023, when several African heads of state came together to discuss 69 infrastructure projects valued at $160 billion and which aim to boost Africa's economic integration and competitiveness. This initiative is part of the Programme for Infrastructure Development in Africa (PIDA) and includes projects such as the Abidjan-Lagos Highway project which will go along the coast of West Africa, connecting Abidjan with Lagos via Accra, Lomé, and Cotonou[17].

African sovereigns must continue to invest and open key infrastructure corridors to open markets and drive down costs. In addition to infrastructure investment, governments need to deploy technology to maximize impact of tackling trade challenges.

Digitization

Technology is an enabler of tackling intra-Africa trade challenges but is also an area of improvement for the region.

Important developments have taken place in connecting people in Africa, as an ever-increasing number of people now have access to mobile technology and are connected by the internet. Every country on the continent has greater access to internet and computers than in 2012, while every country but South Sudan has seen an increase in mobile connectivity and communications[18].

Internet development in Africa has allowed users to access information and financial services, monitor market prices, set up businesses and connect with regional countries and the rest of the world. Even though internet penetration is the lowest compared to other regions, the number of connected users is growing faster than the global average.

[11] China Daily
[12] Wilson Center
[13] Wilson Center
[14] World Bank
[15] Wilson Center
[16] BII
[17] Africa Business Insider
[18] Mo Ibrahim Report 2022

Mobile technologies and services are essential in ensuring employment and sustainable development because increased take-up of mobile services creates improvements in productivity and brings efficiency gains. According to WTO estimates, global exports of digitally delivered services recorded an almost fourfold increase in value since 2005, rising 8.1% on average per year in the period 2005-2022, outpacing goods (5.6%) and other services exports (4.2%). However, growth in Africa and in less developed countries continued to lag, with Africa holding less than a 1% share of digitally delivered services exports in 2022[19].

A promising avenue in this sector is the potential of a regional digital currency to ease trading within Africa, which is worth exploring by both countries overall and central banks alike. Embracing digital currency for intra-Africa transactions can streamline processes and reduce costs. It also presents a unique opportunity for Africa's youthful and digitally savvy population which can further boost this possibility, facilitating widespread adoption and fostering financial inclusion and economic growth. The African Export-Import Bank's (Afreximbank) and AfCFTA's Pan-African Payment and Settlement System (PAPSS) is a remarkable example. PAPPS offers a solution to the fragmented nature of payment and settlement systems by providing financial market infrastructure connecting African markets to each other and thereby enabling instant cross-border payments in respective local African currencies for cross-border trade. This system will be key to facilitating and accelerate intra-African trade by eliminating the continent's financial borders as well as formalizing and integrating Africa's payment systems[20].

Conclusion

The G-20 report, *Seizing the Benefits of Trade for Employment and Growth (2010)*, highlighted that "trade openness has been shown in practice to bring greater economic growth and greater employment, so long as it is complemented by appropriate macroeconomic and supporting policies."

Against the backdrop of turbulent social, political, and economic shifts in the world order, the African continent should inwardly concentrate its efforts and focus to aggressively promote the region's "trade openness" and implement relevant policies.

Political leadership and commitment will be critical in forging and implementing proper macroeconomic and supporting policies as well as the necessary regional framework to foster greater intra-regional trade flows.

A key area of focus is the need for greater standardization of regulation (which the AfCFTA addresses to an extent through common standards and the harmonizing of trade laws), as the current impediments to intra-Africa trade predominantly stem from the complexity and diversity of regulatory frameworks across the continent. Continued strategic investment in physical infrastructure and human resources (i.e., education, health) is also fundamental to the implementation of the trade agenda.

Lastly, Africa needs to not only leverage its comparative advantages (e.g., favorable demographics, arable lands and natural resources) but also embrace and employ the disruptive technologies that are beginning to transform the old order. Digitization is changing the rules of trade by introducing new products and services, transforming industries and value chains, disrupting business models, and creating new employment opportunities. Technology should continue to allow Africa to realize advances and leapfrog physical challenges to provide greater access to products and services for its people and the wider region.

Today the momentum is positive, and the direction is clear for the realization of an integrated and flourishing trade community on the African continent. ■

[19] WTO Global Trade Outlook and Statistics
[20] Afreximbank

While policies and governance are important to build trust and reduce bias, AI can play a wide range of roles for governments and public sector entities globally.

AI in the Public Sector: *Facilitating Engagement, Improving Enablement and Enhancing Risk Management*

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Interest in artificial intelligence (AI) has soared in the past year as the power of Machine Learning (ML), and specifically, generative AI (which includes large language models (LLMs)) has become clear to consumers and companies alike. In contrast, governments are more often seen as regulators rather than users of AI. But while policies and governance are important to build trust and reduce bias, AI can play a wide range of roles for governments and public sector entities globally.

Citizen and customer engagement

Citizens interact with their governments in myriad ways at different times. For instance, individuals and companies file tax returns, citizens need to pay utility bills or parking fines, or people might just want to find out what day their recycling is collected.

Typically, governments simply provide information or services via in-person visits, telephone calls, or increasingly, their websites. More recently, some governments and public sector entities – just like corporates – have introduced chatbots that utilize basic AI to answer queries and offer self-help capabilities. These virtual assistants can provide more tailored information to the public or, in some cases, process straightforward forms. The ePortugal Portal of Public Services includes Sigma, a 24/7 virtual assistant chatbot that provides answers in writing to frequently asked questions posed by Portuguese citizens, for instance.[1]

[1] https://oecd-opsi.org/wp-content/uploads/2019/11/AI-Report-Online.pdf

Potential barriers to AI adoption

While there are many benefits from adopting AI, government and public sector entities face some challenges in introducing new technologies:

- AI have the potential to lower costs but may require significant upfront investment.
- The public sector is in competition for AI talent with the private sector, which may be able to offer more generous financial rewards.
- The scale of government can sometimes result in a culture of risk aversion and hesitancy to innovate in advance of the private sector.
- While government has huge volumes of valuable data, it may not be easily accessible or in usable formats: government IT infrastructure may lag the private sector.

However, the technology that underlies such chatbots is relatively unsophisticated compared to what is possible with generative AI. Early chatbots applications cannot respond to complex queries or questions: when they encounter a problem, the chat is usually transferred to a human operative.

Today's generative AI-chatbots can leverage sophisticated natural language processing (NLP) techniques via LLMs to produce human-like text, making interactions more context-aware (increasingly, these chatbots are beginning to sound like humans too). Traditional AI techniques ingest data to learn how humans behave and analyze this information to replicate patterns, effectively enabling it to predict what happens next. Generative AI goes a step further by analyzing existing data from a variety of inputs to generate new content. Crucially, generative AI-chatbots can integrate with various data sources via application programming interfaces (APIs) or plugins, enabling them to retrieve real-time information and perform more complex tasks.

As well as providing access to information and services, generative AI might be used by governments to solicit, analyze and action citizens' opinions on various topics – ranging from identifying and verifying locations of potholes in a neighborhood to what government should prioritize in order to reach net zero emissions by 2050. Crowdsourcing gives governments a new way to understand the opinions of its citizens and more rapidly respond to their concerns with policies and actions. Generative AI can be used to more rapidly collate and act upon data gathered from citizens.

In Belgium, civic tech company CitizenLab uses NLP-powered AI to process and categorize thousands of citizen contributions, highlighting key trends for more efficient decision-making. Civil servants can access this data via real-time dashboards, enabling them to easily identify citizens' priorities and to make decisions accordingly. For example, in 2019 when large numbers of young people were protesting against climate change, CitizenLab set up a participation platform that generated 1,700 ideas, 2,600 comments and 32,000 votes on the topic. These findings were used to inform a report for elected officials that included 16 policy recommendations.[2]

Operational enablement

Many government bodies have multiple manual touch points in their operations. AI, and specifically generative AI, can be used by public sector entities to enhance processes, connect data points together, and automate time-consuming tasks such as reviewing data and submitted documents, such as tax returns and regulatory reports.

Generative AI can be used to analyze vast unstructured datasets (such as emails, phone calls, regulatory reports, news articles, social media posts, images and videos) in more detail than was previously possible in order to identify trends, patterns, and potential problems, and to generate insights that can be used for better decision-making and policy-making.

[2] https://oecd-opsi.org/wp-content/uploads/2019/11/AI-Report-Online.pdf

For example, it might be used in healthcare to predict disease outbreaks by aggregating and analyzing data from electronic health records, public health databases, environmental data (such as weather and climate information), social media, and even internet search trends. Australia's Epiwatch uses NLP to search for phrases that could be associated with the emergence of a new illness, for instance.[3] Generative AI can potentially take this analysis further by 'understanding' the meaning behind more complex phrases and adjusting for differences in local dialects.

Similarly, if done correctly, law enforcement can use AI to predict crimes by analyzing historical data, including the time and location of past crimes, or by continuously monitoring real-time data such as CCTV feeds and social media posts. On a larger scale, AI is being used to fight organized crime in remote areas of Africa. EarthRanger, part of the Allen Institute for Artificial Intelligence, uses AI and predictive analytics to collate historical and real-time data – including from ranger patrols, spatial data and observed threats – within protected areas. The technology has helped park rangers to crack down on poaching in the Grumeti Game Reserve, Tanzania.[4] Again, generative AI has the potential to supercharge this analysis by analyzing vast amount of unstructured data that can further provide support for a particular strategy or immediate action.

In transportation, AI can improve traffic management by optimizing traffic flow, reducing congestion and improving road safety. Again, this process can operate in real time by leveraging smart traffic lights and adaptive speed limits. In the UK, AI is now being trialed for air traffic control using simulations of real-life air traffic, although its introduction is some years away.[5] In a similar way, California's firefighters now use AI to analyze data from more than 1,000 cameras across the state to spot wildfires and mobilize first responders.[6]

Needless to say, the new generation of AI techniques, including generative AI, promises to further provide assistance when reviewing complex scenarios and situations that might arise on-the-fly.

Risk and controls

Government and public sector bodies have a huge impact on their country's economy and society and, as such, require effective risk management and controls. AI can strengthen their capabilities and – given the speed that data can be analyzed – could be used to design risk policies and controls that respond dynamically as circumstances change.

One obvious government use of AI is to enhance cybersecurity by detecting and responding to cyber threats in real-time, protecting sensitive government data and critical infrastructure. In August, the Biden Administration launched a competition to challenge private sector companies to use AI to identify and resolve software vulnerabilities in areas from critical infrastructure to the code that runs the internet.[7]

Generative AI can be used to analyze vast unstructured datasets (such as emails, phone calls, regulatory reports, news articles, social media posts, images and videos) in more detail than was previously possible in order *to identify trends, patterns, and potential problems, and to generate insights that can be used for better decision-making and policy-making.*

[3] https://harvardpublichealth.org/disease/ai-services-like-epiwatch-are-already-tracking-the-next-pandemic/
[4] https://enactafrica.org/enact-observer/ai-and-organised-crime-in-africa
[5] https://www.ft.com/content/783a9d91-cce3-4177-bfe0-5438aa3b892a
[6] https://www.reuters.com/world/us/california-turns-ai-help-spot-wildfires-2023-08-11/
[7] https://www.weforum.org/agenda/2023/08/artificial-intelligence-techonology-news-august/

AI can leverage data from multiple sources – both within government and from the private sector – to deliver actionable insights for risk management and controls. For instance, AI can help governments to detect and prevent fraud in areas such as tax collection and social welfare programs, flagging cases where reported income differs from financial transactions or where multiple individuals claim the same dependents for social security or tax benefits. Italy used AI to identify one million high-risk cases in 2022 and prevent more than €6.8 billion in fraud.[8] In September, the Internal Revenue Service announced that it was using AI to investigate tax evasion at hedge funds, private equity groups, real estate investors and large law firms.[9]

Regulators and supervisors are also turning to AI to deliver a more effective, flexible and responsive supervisory system. For example, Mexico's National Banking and Securities Commission has developed a prototype for an NLP application to uncover potential money laundering/terrorism financing networks and facilitate the detection of unusual transactions and relationships.[10] In Germany, the Federal Financial Supervisory Authority (BaFin) has established an integrated automated alarm and market monitoring system for analyzing potential market abuse cases, including insider trading and market manipulation. The solution leverages the regulator's analytical data warehouse, visualization software and AI techniques.[11]

The advent of generative AI means that there is an opportunity to further strengthen risk and control processes. By gaining a deeper understanding of unstructured data compared to today's solutions, it can boost efforts to detect cyber threats and identify fraud in myriad situations.

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[8] https://news.bloombergtax.com/daily-tax-report-international/italy-turns-to-ai-to-find-taxes-in-cash-first-evasive-culture
[9] https://www.nytimes.com/2023/09/08/us/politics/irs-deploys-artificial-intelligence-to-target-rich-partnerships.html
[10] https://www.oecd-ilibrary.org/sites/d478df4c-en/index.html?itemId=/content/component/d478df4c-en
[11] https://goingdigital.oecd.org/data/notes/No10_ToolkitNote_SupTechCorpGov.pdf

Conclusion: There is no such thing as a free lunch – data is critical

The opportunities for governments and public sector entities to use AI are potentially limitless. These technologies can be used to lower costs, improve efficiency, reduce risk, deliver services more effectively and engage with, and respond to, citizens. They can also improve openness, accountability and social inclusion and help governments to meet their Sustainable Development Goals: many solutions to monitor and mitigate climate change, for instance, depend on AI.

While there are several benefits in deploying AI, especially generative AI, governments also need to be cautious when using this technology. AI can be biased, inaccurate and outright wrong. It is only valuable if the data that underpins them is accurate, timely, consistent and complete. Moreover, data has to be used in the right way. An OECD' report on AI notes: "Public servants who are interested in engaging with AI need to know... what types of data can be used, what sort of data AI needs, and how to check if their data are ready for AI."[12] Just like the private sector, governments and the public sector need to strengthen how they collect, collate, analyze and store data. In particular, governments should establish best-in-class data privacy and other safeguards, not just to protect citizens but also to act as a role model for the private sector. Provided such protections are put in place, government data should also be made available to the private sector in order to spur innovation.

Citi is deeply engaged in finding ways to use AI to benefit clients, and already deploys the technology extensively in its solutions. The bank is committed to working with public sector clients to help them leverage the enormous power of AI to improve how they engage with citizens, enhance the efficiency of their processes, and strengthen their risk management and controls. ■

[12] https://oecd-opsi.org/wp-content/uploads/2019/11/AI-Report-Online.pdf

The concept of the 'public wealth' has been around since the last century, yet it still remains generally overlooked and unexplored, as a result of a lack of accountancy, audit, supervision, and regulation of public assets.

Asset Monetization: *A Paradigm Shift Unlocking the Value of Public Sector Assets by Tapping Private Capital and Operational Efficiencies*

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The turbulent interest rate environment has, among others, slowed down the access to more traditional sources of capital, such as international capital markets and lending at sustainable rates, leaving room for alternative financing and innovative asset management approach. Idly sitting public sector assets represent an opportunity to create a new source of revenue by unlocking the value of otherwise unutilized or underutilized public assets.

Traditionally, governments have had tendency to turn towards capital markets as a primary capital source to meet additional financing needs, when operating in a challenging macroeconomic environment within fiscal and resource constraints. While investment grade governments have maintained their access to the international capital markets, albeit at a higher cost, the opportunity window has significantly contracted, if not completely closed, for lower credit rated sovereigns, currently looking at high double-digit yields. Capacity of other capital sources, such as domestic credit markets, development finance institutions or bilateral loans is also constrained, and in most cases does not fully meet the financing requirements. Both, the increased cost of borrowing and restricted access to the international capital markets, offer an opportunity for governments to look closer at alternative financing sources, making them relatively more attractive than before.

The concept of the 'public wealth' has been around since the last century, yet it still remains generally overlooked and unexplored, as a result of a lack of accountancy, audit, supervision, and regulation of public assets. In most countries the value of public assets exceeds public debt.[1] Having in place a framework triangulating focused public asset management has potential to kick-start growth, open up fiscal space by widening the revenue base by up to 3% of GDP[2] and enhance fiscal buffer to weather future exogenous shocks. Subsequently, the government eliminates the need to resort to debt, exhausting existing savings, or being forced to revert to excessively painful austerity measures, vital especially for emerging markets.

[1] IMF (2018) Fiscal Monitor. Managing Public Wealth
[2] IMF (2019) A Global Picture of Public Wealth

The notion of asset monetization extends beyond a simplified transfer of ownership. Rather, the focal point is on the "revenue-rights" bringing up the yield potential generated through public assets in any shape or form, including a corporate entity, a physical asset as well as future receivables. Adopting the same tools of financial management as the private sector enables the government to maintain ownership, identify a wider portfolio of monetizable assets, and manage them professionally, generating an additional income stream. The operational steps of successful execution of asset monetization are readily applicable to each government, including emerging markets. As a prime example, professional use of public commercial assets was a core component of Singapore's strategy to move the economy from developing to developed status in a single generation of the last century. *"Singapore delegated the responsibility for managing public commercial assets to professionals in the public wealth fund, Temasek, that introduced private sector discipline and used governance tools borrowed from the private sector. Many of Temasek's holdings are now world-leading companies within their sector.[3]"*

The asset monetization is a very timely strategy within the current economic environment, paving the way towards alternative financing sources allowing the Government to ease investment and financing needs in return for additional liquidity, enhanced management and operational efficiencies.

Setting up a framework

Well-designed and executed monetization framework facilitates the supervision, strategy planning and management of public assets.

1. Professionalize the approach by setting up a **dedicated public asset management entity**, i.e. a holding, a Public Wealth Fund (PWF), an investment trust, seeking exclusively enhanced profitability and operational efficiency mandate. (*Note: PWF differs from a Sovereign Wealth Fund (SWF), which is designed to optimize a portfolio by trading securities*).[4] Most governments around the world have delegated public management of several core financial operations to separate professional institutions, including government debt to the debt management office and interest rates to the central bank.[3] In setting up an PWF, a government needs to pay special attention to three fundamental principles given the inherent shortcomings of public sector corporate governance, including: value maximization through adhering to international accounting norms, promoting transparency, and ensuring political insulation.
2. Run a **national inventory process** to map out all state-owned assets, to gain comprehensive visibility and allow for targeted management. The public sectors of many countries around the world own a huge variety of operational (i.e. transportation hubs, utilities, financial services) and real (i.e. buildings, land) assets. Often overlooked, stakes in companies, license rights as well as receivable flows can also be considered as part of the mapping exercise. In most instances, the largest segment of portfolio of public commercial assets is real estate, the value of which is several times that of all other assets.[3]
3. Identify **strategic portfolio**, composed of public assets fit for a further monetization purpose. The best candidates should be meeting a variety of (i) operational, (ii) financial, (iii) commercial and (iv) legal and regulatory criteria[5]:
   i. adequate remaining life to ensure sufficient return on investment
   ii. track record of positive cash flow generation/revenue generating potential
   iii. tested market appetite, including investors
   iv. full compliance with applicable regulatory requirements, remediation of any non-compliance otherwise
4. Determine the most appropriate **governance structure of the assets** considering its strategic importance to the country. The government can opt for one-off revenue boost through standard privatization, transferring full ownership and controlling rights of the entire asset. However, asset recycling offers the opportunity of a recurring revenue stream, by temporarily transferring ownership rights during the agreed period, in return for income rights, i.e. upfront and/or regular fees.
5. Set up **strategic and financial objectives** per asset. The managing entity outlines qualitative and quantitative goals, roadmap to reach them, and periodically reviews a decision regarding a contract renewal for another term or an exit strategy. Accounting-wise, alignment with the international standards similar to those used by private companies and based on accrual accounting facilitates the comparative assessment for the private sector, and drives further commercial opportunities.
6. Earmark the **use of proceeds** from each asset to another **development project**. It may be a good practice to reinvest a pre-agreed percentage of the generated incremental flows into another strategic national project, potentially linked to the sustainable development, reducing the investment financing needs. Reinvested revenue streams will trigger a snowball effect, driving a higher revenue multiplier rather than just allocating the totality of proceeds to reduce debt or finance the budget deficit.

The adoption of public asset monetization varies widely from country to country. For example, India has put in place a monetization framework, and consolidated their planned initiatives into a comprehensive execution plan in a form of a National Monetization Pipeline (NMP) FY2022 - 2025[6] for c. USD72 billion in value.[7] The pipeline was published to establish a medium-term roadmap for "monetization-ready" assets, enhance visibility to the private sector on planned projects, and provide a platform to track asset performance and improve efficiency and transparency in public assets management.

Converting static public assets into revenue-generating assets

Well-designed, implemented and managed asset recycling strategy is effective when it reduces public expenditure for design, financing, construction/rehabilitation, operations, maintenance over the entire lifecycle of the asset.

Asset Monetization Models

Concessions provide an attractive solution of carrying projects in the public interest supported by private capital and know-how, supplementing restricted public resources. A government can decide which part of the cycle it would like to monetize on both new and existing assets, allowing for a wide array of different models to choose from.

"Privatize to *increase the efficiency of the economy,* or don't privatize at all."

– **Rod Sims**, Chairman of the Australian Competition and Consumer Commission.[8]

[3] Citi (2019) Perspectives: Putting Public Assets to Work
[4] IMF (2023) The Public Wealth Fund – a Double-Edged Tool. Dag Detter
[5] World Bank. Public-Private Partnership Legal Resource Centre. Guidelines for Asset Identification

[6] NITI Aayog (2021). National Monetisation Pipeline
[7] Converted to USD from the official amount of 6 lakh crores at an FX rate of Rs/USD 83.25
[8] The Economic Times (2021). Australia has lessons for Narendra Modi's asset recycling plan

Historically, concession models have been a popular choice for managing European infrastructure[9] but they have also become successful beyond Europe. Since 2018, the National Highways Authority of India (NHAI) has been monetizing publicly funded existing national highways projects under the Toll-Operate-Transfer (TOT) model. In return for an upfront lump-sum concession fee to the government, a selected concessionaire maintains and operates the infrastructure during a long-term concessionary period (usually a few decades), reducing the NHAI's maintenance and financial efforts.[10] In 2019, the Government simplified funding mechanisms to augment the uptake of the TOT by providing more alternate sources of funding. The Government authorized NHAI to monetize its highway assets in December 2019 via Infrastructure investment trust (InvIT), which functions like a mutual fund in allowing individual and institutional investors to pool their funds together for infrastructure projects and receive a portion of the income as a return. In 2023, a third player, the National Investment and Infrastructure Fund (NIIF) took over the TOT project as the latest concessionaire. The Indian TOT model has created a track record of successfully attracting private capital due to its provision mitigating adverse demand risks throughout the concessional term. Since the beginning of the concession, the NHAI has raised so far USD3.7 billion.[11]

The Government of Indonesia has monetized its cashflow-positive operating infrastructure assets to use the proceeds to finance greenfield assets. In 2020, the Government put into effect The Limited Concession Scheme (LCS) framework, as an alternative to the widely existing Public-Private Partnership (PPP) scheme.[12] The structure is similar to the aforementioned India's concession TOT model, where the government receives an upfront annual lease payment to be redeployed to develop new strategic infrastructure, such as Trans Sumatra Highway or greenfield infrastructure.

Lease contracts are common across high-maintenance assets in the energy, transport and telecom sectors. In 2016, Australia awarded a 50-year lease of the Port of Melbourne for AUD 9.7 billion, requiring in return regular maintenance and enhanced competitiveness and efficiency of the port.[13] The Government used the secured, long-term funds to support the development of national railways, improving the port's connectivity and adding another layer of competitiveness.

In a **Joint Venture (JV) model**, the public sector operates the asset jointly with a private investor under a long-term lease or concession. In 2000, Bucharest municipality entered into a JV with a transnational utility company under a build-rehabilitate-operate-transfer concession. The municipality retained ownership of all infrastructure during the 25-year concessionary period as well as the power of veto on certain decisions.[14]

Structured financing

Securitization is a popular solution for countries with lower sovereign credit rating to raise external financing. In 1987, oil exporters were the first emerging markets to use collateralized borrowing. Traditionally, Latin America has dominated the collateralized bond market while Southeast Asia has dominated the collateralized loan market. Collateralized borrowing includes both borrowing collateralized on existing assets (e.g., buildings) and on future receivables (e.g., next year's oil revenue). In 2015, the Peruvian Ministry of Transport and Communication entered into a concession agreement with Metro de Lima Linea for the construction and operation of railway lines in return of the compensation by the Ministry under an RPI-CAO[15] payment regime. This translated into the construction phase of Lima Metro Line 2, which was financed by issuing a project bond backed by RPI-CAO regime payments. A decade earlier, the Kingdom of Belgium identified a new asset class for securitization - EUR 500 million of tax arrears, which were difficult to recover. The Government set up a debt investment company (SIC) which issued bonds on the international capital markets. The coupon and principal repayments were covered from the underlying securitized tax arrears portfolio. The majority of the proceeds was destined for the Budget, while EUR 40 million were reinvested to enhance the national IT system to improve government's ability to collect the debt.[16]

Trust-based financing solutions, such as Infrastructure Investment Trusts (InvTs) and Real Estate Investment Trusts (REITs), provide opportunity for the private sector to invest in assets with long-term contracts, low operating risks and stable, predictable cash flows and dividends. The underlying infrastructure or real estate assets are transferred to a trust, which then operates similarly to a mutual fund, attracting investors while securitizing the proceeds from the underlying infrastructure or real estate assets. In 2021, Power Grid Corporation of India Ltd (PGCIL) set up Powergrid Infrastructure Investment Trust (PGInvIT) to monetize five power operational transmission assets. The PGInvIT offered an additional financing window to finance new and current capex but also drive the company's net worth on the back of the premium earned from the asset monetization.[17]

Privatization with sole controlling rights

In 2016, the Australian Government monetized, under its Asset Recycling Initiative (ARI), a regulated asset through privatization of a large state-owned electricity transmission company TransGrid. A consortium of pension and infrastructure funds (including but not limited to the Abu Dhabi Investment Authority, Caisse de Dépôt et Placement du Québec, and Wren House, part of the Kuwait Investment Authority) bid AUD 10.3 billion for a 50% ownership, financed with AUD 5.8 billion debt and AUD 4.4 billion equity. As a critical national infrastructure, the Australian Government maintained sole operation and control role, and required for the board to be composed exclusively of Australian citizens and residents.[6, 18]

(Partial) divestment

Finally, asset recycling provides also an opportunity to divest in brownfield assets across various sectors. In 2018, the New South Wales Government sold a 51% stake in the WestConnex project for AUD 9.3 billion. This enabled the state government fund the construction of later stages of the green motorway scheme.[19] Later in 2020, the Government sold its remaining 49% stake as part of the State's successful asset recycling strategy. The proceeds were earmarked to build and upgrade schools, hospitals, and infrastructure.[20]

> The current economic landscape, characterized by multiple compounded challenges and uncertainties, including a rising opportunity cost, *presents a timely and strategic opportunity for governments to diversify their financing base, exploring alternative and innovative financing sources.*

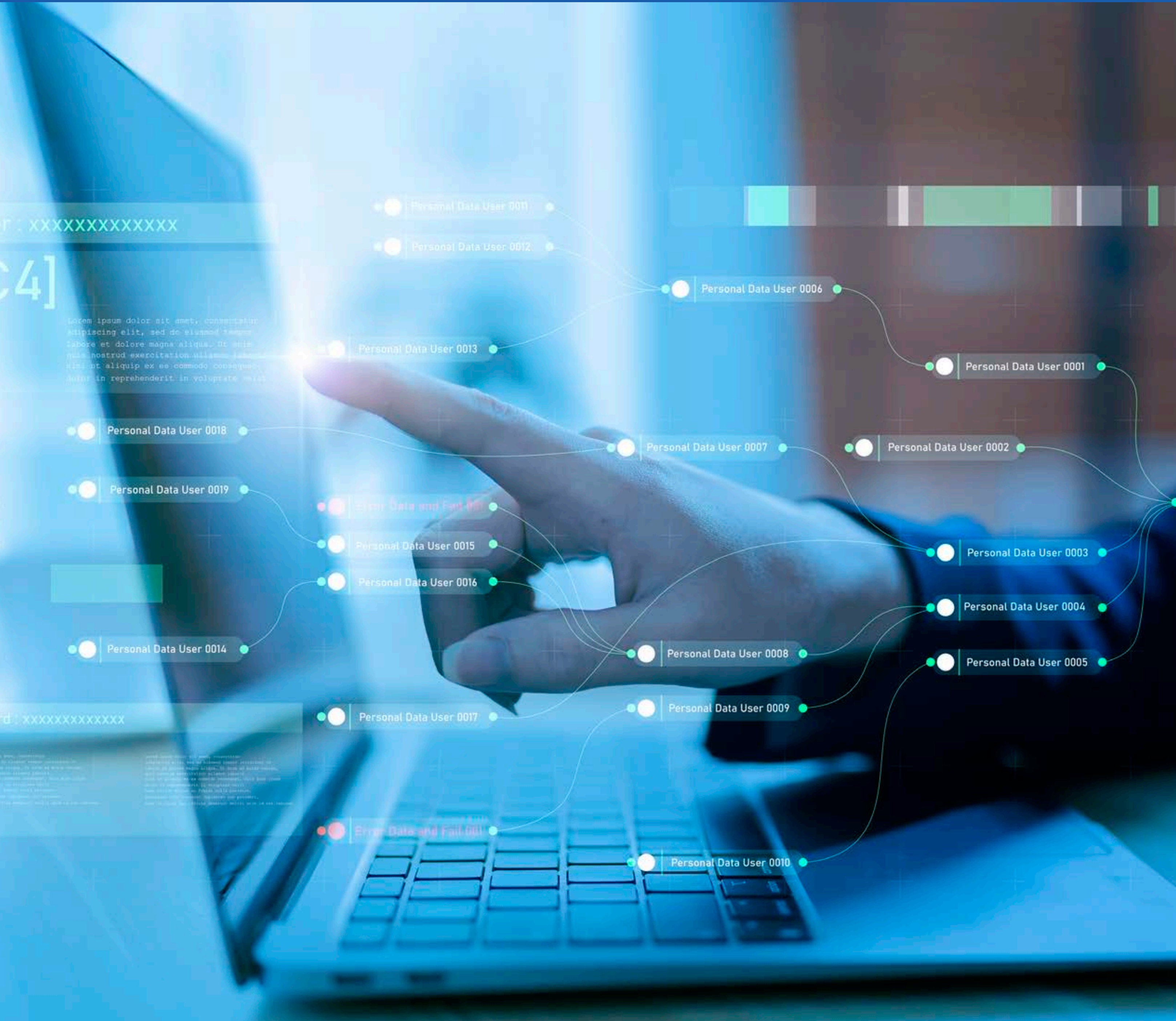
At the beginning of 2023, the Federal Government of the Kingdom of Belgium reduced its stake in an international financial institution for EUR 2.2 billion while maintaining a seat on the Board of Directors. The rationale was driven on the back of a strategic approach of reinvesting the majority of proceeds from the sale to strengthen the domestic anchorage of two key local institutions. Roughly EUR 500 million was reserved to service the national debt.[21]

Conclusion

The current economic landscape, characterized by multiple compounded challenges and uncertainties, including a rising opportunity cost, presents a timely and strategic opportunity for governments to diversify their financing base, exploring alternative and innovative financing sources. Within this context, there is a compelling case for governments to adopt a targeted and forward-looking approach, consisting in mapping, identifying and engaging with the private sector to effectively benefit from underutilized or dormant public assets, creating incremental revenue stream. The long-term, regular financial income from the latent value of these assets, can then be strategically directed toward critical investments that are pivotal for driving socio-economic development of the country or sovereign debt burden reduction, optimizing public finances health. Successful implementation of the asset monetization stands on well-designed and executed asset recycling framework, which unlocks financial gains but also encourages regular private investment inflows, fostering long-term economic growth and operating efficiencies in the interest of a broader society. In addition, part of the use of proceeds can be reinvested into sustainable and energy transition initiatives, contributing to national key priorities. Considering the constantly evolving economic and climate environment, asset monetization represents an array of untapped opportunities that have yet to be fully realized. By embracing these innovative approaches, governments can not only navigate the challenges of today, but also proactively shape a more resilient and sustainable future. ■

[9] The National Interest (2021) The Concession Model: A Very European Approach to Infrastructure
[10] The Economic Times (2023) National Investment and Infrastructure Fund (NIIF) wins toll, operate and transfer project from NHAI for Rs3,144 crores
[11] Converted from Rs 31,200 crore at FX rate of Rs/USD 83.25
[12] Allen & Overy (2020) New Concession model introduced to monetise existing Government/SOE infrastructure assets
[13] UNCTAD (2016) Australia sold Port of Melbourne lease to a consortium including foreign investors
[14] World Bank. City Resilience Program. Public Private Partnership (2010)
[15] Retribuciones por Inversiones según Certificado de Avance de Obras, Remuneration for Investments according to Works Progress Certificate
[16] LaLibreEco (2005). La titrisation rapportera 500 millions à l'Etat belge

[17] T&D India (2021) Powergrid InvIT: Five Assets Identified for Monetization
[18] IJGlobal (2016). TransGrid, Australia
[19] Transurban (2018) WestConnec Acquisition
[20] NSW (2020) Media Release: WestConnex Transaction Continues Successful Asset Recycling Strategy
[21] The Brussels Times (2023) 'A clear choice': Belgium earns €2.2 billion from sale of BNP Paribas stake



Two strategies that have the potential to generate significant results, while also improving operational performance, are the adoption of shared service centers (SSCs) and digitization, which often go hand in hand.

Supranationals: Shared Service Centers and *Digitization Can Be Transformational*

Supranationals, just like other private and public sector organizations around the world, face an increasingly challenging economic landscape, with rising costs and budgets that are under pressure. As a result, finance and treasury departments at multilateral development banks (MDBs) and other supranational entities are looking for ways to reduce expenses, improve efficiency and enhance controls in order to better deliver on their missions.

Two strategies that have the potential to generate significant results, while also improving operational performance, are the adoption of shared service centers (SSCs) and digitization, which often go hand in hand. While SSCs have been used by multinational corporates for decades – as well as a handful of the largest supranationals – interest in the benefits they can deliver is now growing among a wider range of supranational entities. Similarly, falling costs – and the increased digitization of our daily lives – mean that many supranationals are now looking to technology in order to streamline working practices, cut costs and improve risk management.

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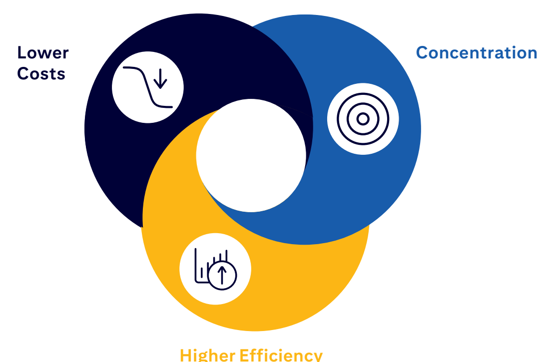
Why create a Shared Service Center?

The value proposition of SSCs is straightforward. By concentrating services, SSCs offer the opportunity to lower costs and improve efficiency. Lower costs are achievable for two reasons. First, SSCs tend to be located in low-cost countries (relative to the location of the entity's headquarters). Second, by concentrating activities, SSCs can generate synergies: tasks tend to be performed in a more consistent way, reducing errors and improving productivity.



Cost is a key driver when it comes to location. According to Deloitte's 2023 Global Shared Services and Outsourcing Survey (based on around 500 responses from leaders in 40 countries), 51% of organizations planning on moving their SSCs are seeking lower costs. In contrast, 27% of firms want to gain better access to talent within the next three years[1]. Attitudes are likely to be similar among supranationals, although some may have other important criteria when choosing a location for a SSC. For instance, a location may be chosen as part of their operational mission, to encourage economic development and build local skills.

Preferred SSC locations (ranked)

Source: Deloitte's 2023 Shared Services and Outsourcing Survey

While cost is critical, it cannot be the sole determinant of where a SSC is located. Unless the quality of services meets the required standards, synergies and cost savings cannot be realized. When deciding the location, it is important to consider the skills of the local labor force (including finance, IT and language skills), economic and political stability, availability of office space, operating costs, and local infrastructure, including the reliability of electricity and other utilities such as broadband.

Synergies result from the bundling of supporting processes and operations into a dedicated center of excellence. While there are potential savings from reduced headcount, as importantly SSCs allow organizations to negotiate better prices by consolidating vendors, and can enhance working capital by standardizing and concentrating treasury activities.

[1] https://www2.deloitte.com/us/en/pages/operations/articles/shared-services-survey.html

By definition, a SSC is an environment where expertise is concentrated and can therefore be shared among employees, increasing productivity and efficiency over time. Whereas in the past various teams may have performed multiple roles (especially at supranationals) or served different internal or external customers, a dedicated SSC team learns how to perfect their role and best serve repeat customers. By concentrating functional roles, the culture of an organization can be transformed, enhancing customer experience.

This professionalization can also be reflected at a management level. Traditionally, many of the jobs performed in a SSC are categorized as back-office roles and may be an afterthought for organizations. Concentrating activity into a SSC not only professionalizes back-office functions, increasing morale and productivity, but means that management is solely focused on these tasks and is incentivized to identify opportunities for improvement. As a result, service quality often improves in a SSC. Centralization of activities also facilitates more robust controls and improves management's visibility of performance.

SSCs also offer opportunities to develop additional competencies that benefit the wider organization. For many corporates, SSCs are now seen as a tool to modernize operations and provide information and insights. For example, SSCs may provide crucial processes such as forecasting, reporting, and treasury. These improved operations allow for finance, human resource (HR) and IT departments to be strategic partners driving the growth of the organization or contributing to more effective delivery of its mission.

Why build a Shared Service Center?

Consolidate vendors for greater purchasing power and better terms

Create economies of scale from standardization and concentration of activities

Increase productivity through digitization

What progress have supranationals made?

In many ways, supranationals are ideal candidates for a SSC. Supranationals are international organizations that transcend national boundaries and typically involve multiple member countries. They have to manage a wide range of administrative and support functions across multiple geographies. By centralizing these functions in SSCs, they can achieve significant cost savings through economies of scale, reduced duplication of effort, and optimize resource allocation.

Moreover, many of the main drivers for SSCs are magnified for supranationals. To deliver on their missions, supranationals may operate across diverse geographies, resulting in varying processes, procedures, and policies that result in inconsistency in operations and challenges in achieving compliance with organizational goals. Inconsistency necessarily creates a certain level of inefficiency as well as making transparency and data security harder to achieve. Inevitably, productivity is reduced because of a lack of focus on administrative functions in each location where tasks are executed, while knowledge sharing is hampered by the limited interaction of the various employees undertaking tasks.

Despite the potentially significant benefits of SSCs for supranationals, adoption has lagged the corporate sector. Many multilateral development banks, for example, still execute the bulk of support functions at their headquarters or across multiple country offices rather than in a dedicated SSC. However, there are some notable exceptions.

To deliver on their missions, supranationals may operate across diverse geographies, resulting in varying processes, procedures, and policies that result in inconsistency in operations and challenges in achieving compliance with organizational goals.

For example, the World Bank recently celebrated the 20th anniversary of its flagship SSC in Chennai, India. The largest World Bank Group (WBG) office outside the U.S. headquarters, the Chennai center employs 1,200 staff and provides accounting, finance, HR, and IT services to over 130 international offices of the WBG.[2] In addition, UNICEF has its Global Shared Services Centre (GSSC) located in Budapest, Hungary supporting more than 150 UNICEF offices and over 16,000 staff globally. The GSSC supports HR, payroll, finance, and helpdesk services. By centralizing these services, UNICEF field staff can more efficiently support the most vulnerable children across the world.[3]

When a SSC makes sense

Given the need to make effective use of their budgets and free up funds for operational objectives, it is prudent for supranationals to investigate opportunities to establish a SSC (or expand the competencies of an existing center).

To determine whether a supranational would benefit from a SSC, it can be helpful to audit existing operations and processes, analyzing various characteristics across different locations, such as:

- Breadth of geographical presence
- Scale of local administrative functions
- Prevalence of non-standard processes/compliance with best practice
- Redundancies across offices
- Compatibility of IT systems across locations
- Ability to access technologies
- Use of local or temporary solutions
- Support costs
- Varying service levels.

Given the scale and complexity of supranationals – and the myriad range of locations where they often execute various administrative and other functions – many could benefit from a SSC.

Supranationals with SSCs can achieve economies of scale, greater control, lower labor costs, and reap the full benefits of investments in technology, standardization, and integrated procurement. Investing in a SSC could also enable supranationals to enhance customer service for both front- and back-office services, better leverage specialist skills, increase management capacity, warehouse data more effectively, and elevate controls.

What role does digitization play?

Digitization is a broad objective for supranationals and often has an operational dimension. For instance, it can deliver financial inclusion and accelerate economic development. Moreover, as new World Bank President Ajay Banga recently noted, digitization has an important role to play in improving governance. The World Bank recently announced a collaboration with the Inter-American Development Bank with this objective.

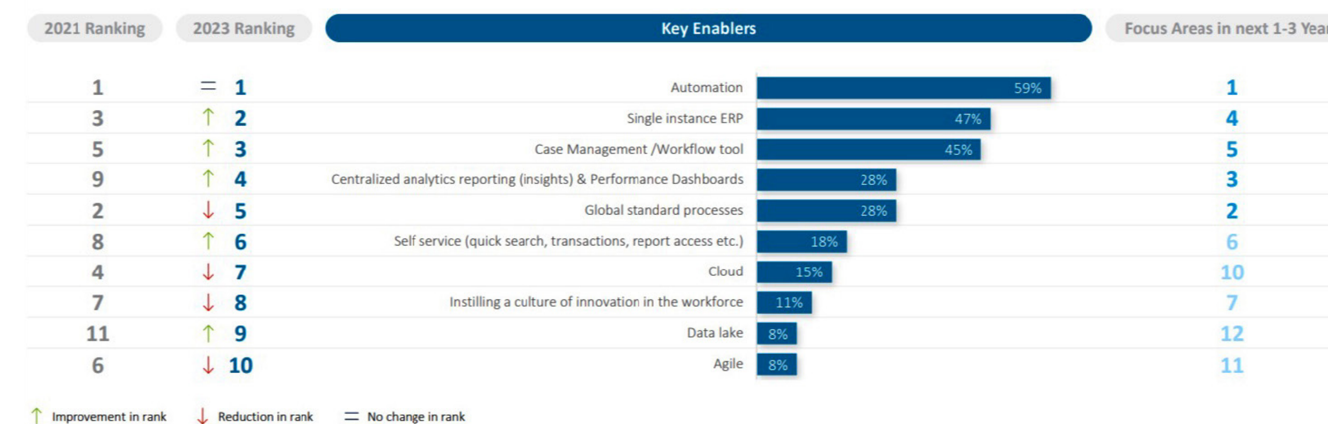
In the context of SSCs, digitization is both a key driver for the introduction of a SSC and for generating increased efficiencies within existing SSCs.

Most obviously, digitization allows supranationals to streamline and automate their business processes. SSCs can leverage digital tools and technologies to process transactions, handle inquiries (with faster response times and better self-service options), and manage data more efficiently. This results in cost savings through reduced manual labor and improved process efficiency. Digitization facilitates the standardization of processes and workflows across different departments or business units within a supranational. This consistency helps to achieve economies of scale and ensures that services provided by SSCs are uniform and of high quality.

As well as improving efficiency, digital systems can help eliminate errors associated with manual data entry and processing, ensuring that information is accurate and up-to-date. This data can then be used for reporting; it can improve compliance with regulations and internal risk management policies; digital tools can also help to track and mitigate risks. Once there is a sound foundation of reliable data, analytics can be deployed by the SSC to generate insights that identify areas for improvement within the SSC and facilitate better-informed data-driven decision making across the organization.

A key benefit of digitization in SSCs is the ability to easily accommodate growing business needs. As supranationals expand or experience fluctuations in workload, SSCs can scale more easily when their processes are digitized. Similarly, this flexibility means that supranationals with multiple SSCs – serving different regions, for example – can easily shift tasks between locations as required or even operate remotely (such as during events like the pandemic when many employees worked from home). Moreover, digitization means that knowledge can be shared – and collaboration achieved – by SSC employees even if they are not in a single location.

Deloitte's 2023 Global Shared Services and Outsourcing Survey showed that automation is a critical digital enabler for shared services (see chart below) and is expected to be a key focus area in next one to three years. Centralized analytics reporting and performance dashboards has jumped sharply from ninth position in 2021 to fourth position in 2023, while global standard processes and self-service capabilities are seeing increased traction as top focus areas for companies in the next one to three years.[4]



Conclusion: SSCs and digitization go hand in hand

Supranationals play a critical role in today's world. However, many of them were created decades ago and their missions – and geographical remits – have changed markedly. For instance, the European Bank for Reconstruction and Development was established to support the transition of former communist countries in Eastern and Central Europe, as well as some former Soviet republics, to market-oriented economies. Now, it is at the forefront of support for Ukraine as well as finance for the green energy transition.

As supranationals grow their operations, duplication of administrative and other support functions steadily reduces efficiency and control. Moreover, many supranationals find themselves with multiple legacy technology solutions, such as enterprise resource planning or treasury management systems, that are incompatible or out of date and compound these challenges.

SSCs – combined with effective digitization – are a key solution to these challenges. SSCs can play a crucial role in helping supranational organizations achieve their goals by enhancing efficiency, reducing costs, improving transparency, and allowing them to focus attention and resources on their core missions and strategic objectives. And digitization is a critical enabler for SSCs, allowing them to operate efficiently, provide consistent and high-quality services, adapt to changing circumstances, and drive cost savings and strategic advantages for the entire organization. Crucially, by providing efficient and standardized services to member countries, SSCs and digitization can strengthen relationships and collaboration among member nations, promoting unity and cooperation while driving economic prosperity and helping supranationals to more effectively fulfill their mission.

Citi is able to leverage its own transformation journey as a global bank to help its supranational partners to build SSCs and accelerate digitization as they reshape operations to meet future challenges. For more than three decades, Citi has utilized its unrivaled global footprint and comprehensive suite of solutions, including centralized payments, collections and custody, to meet supranationals' needs wherever they operate and empower them to achieve their objectives in a fast-changing world. ■

[2] https://www.worldbank.org/en/news/press-release/2021/12/13/the-world-bank-group-celebrates-20-years-of-presence-and-partnership-in-chennai

[3] https://www.unicef.org/gssc

[4] https://www2.deloitte.com/us/en/pages/operations/articles/shared-services-survey.html

Given the need to honor public pension funds' commitments to pensioners in a timely and sustainable manner – and the fact that PPFs are often in receipt of sizeable sums of taxpayers' money – it is critically important that they operate efficiently.

Public Pension Funds: *Seven Steps to Operational Alpha*

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As the burdens on public pension funds grow due to demographic and other pressures, operational efficiency has never been more important. To outperform, funds need to optimize bank and custodial relationships and accounts and deploy technology to enhance visibility and control, lower costs and reduce risks.

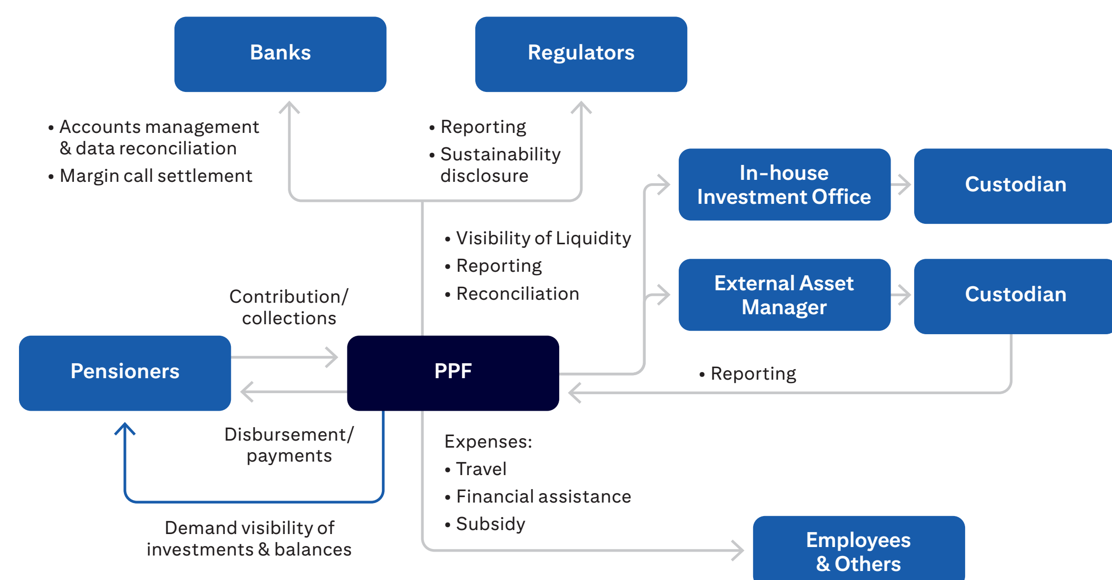
The ultimate goal of public pension funds (PPFs) is to provide pension benefits to pensioners on their retirement. PPFs' success is therefore important for social stability. Given the need to honor their commitments to pensioners in a timely and sustainable manner – and the fact that PPFs are often in receipt of sizeable sums of taxpayers' money – it is critically important that they operate efficiently.

Operational efficiency for pension funds is defined by how effectively they manage their investment processes and risk, asset and liability management (which ultimately determine their investment returns) as well as their management of operating expenses, such as records administration, pension payments and management of cash. While investment-related gains are clearly central to PPFs' ability to meet their obligations to pensioners, managing operating costs is also critical.

Comparing PPFs in different jurisdictions is a challenge given varying accounting standards. It is clear that operating expenses vary widely among PPFs, especially when assets under management are taken into consideration. Partly this is due to size; larger PPFs may be able to achieve economies of scale. Many other factors also impact operational efficiency, such as the extent to which technology and automation are deployed to streamline operational processes, reduce manual work, and improve accuracy.

PPFs operate in a complex ecosystem with communications and data flows between *multiple stakeholders, including pensioners themselves, banks, custodians, external asset managers and regulators.*

Figure 1 – Indicative operation ecosystem of public pension funds

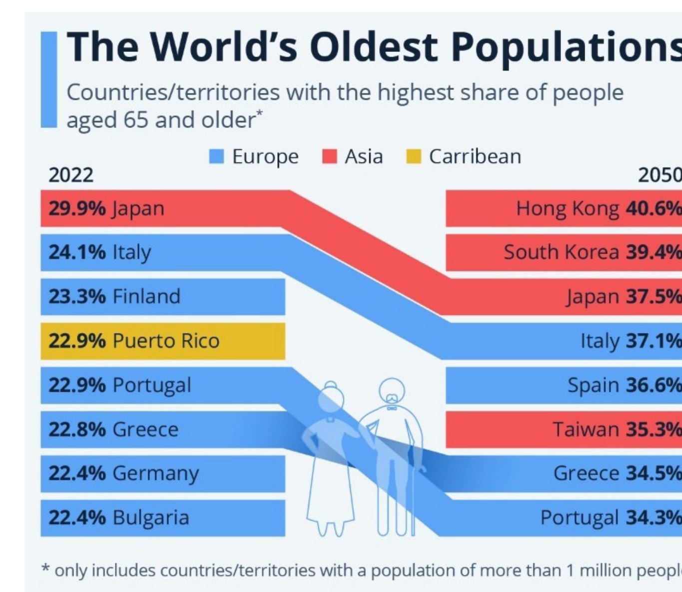


Source: Citi

PPFs operate in a complex ecosystem (see figure 1) with communications and data flows between multiple stakeholders, including pensioners themselves, banks, custodians, external asset managers and regulators. The data is sensitive, encompassing performance, reporting, data reconciliation, expenses, etc. This can make any systems revamp challenging. However, this complexity also means that the potential rewards available from the streamlining of processes and the introduction of new technology can be sizeable.

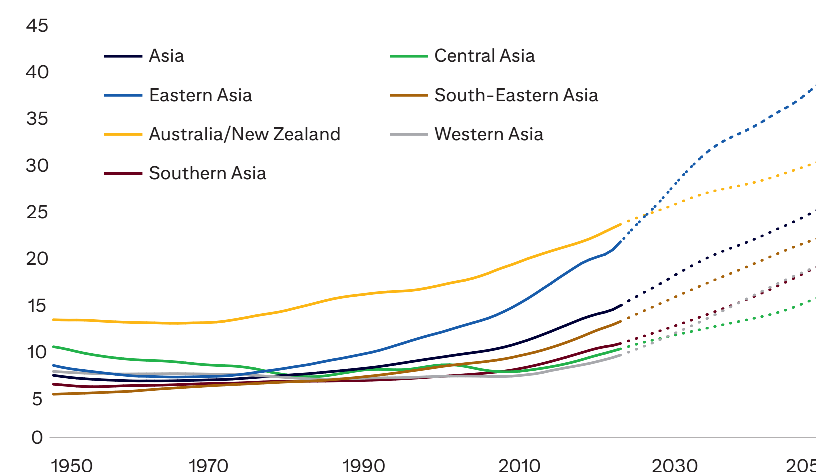
Administrative costs for PPFs in many territories are growing as a result of trends such as increased early retirement (particularly for people with poor health), as well as pensioners' calls for greater transparency and an improved customer experience. Most importantly, increased longevity in many countries means there is a steadily growing number of older people receiving pensions, though this varies significantly around the world. Asia is facing a greater challenge from an aging population than the rest of the world, for example (see figures 2 and 3).

Figure 2 - Countries/territories (with a population of more than 1 million people) with the highest share of people aged 65 and older[1]



Source: United Nations Population Division

Figure 3 - Proportion of people aged over 60 years old in Asia[2]



Source: United Nations Statistics Division

Despite these variations, the demographic direction of travel for all countries is clear. Consequently, the role of PPFs is likely to become greater in the years to come with the imperative to find ways to generate operational alpha ever more pressing.

APG

Netherlands' PPFs (alongside those in Denmark – see separate callout box) are considered among the most operationally efficient.

Algemene Pensioen Groep (APG), which is a PPF serving pensioners from a variety of sectors, is building an IT system and introducing a new policy and capital administration system. Its approach to this transition contains several aspects that represent best practice, including:

- Efficiency is prioritized: IT systems used to collect contributions, pay out pensions and provide annual pension statements are underpinned by agreements with participants; services are provided in partnership with a cloud-based system provider.
- Costs are controlled: APG uses cost per participant to assess administration cost efficiency.
- Technology is used: APG manages data storage security and decision-making processes based on data and AI.
- Service is paramount: APG operates a customer contact center that handles 42,500 inquiries per month.

[1] Statista/United Nations Population Division, from https://www.weforum.org/agenda/2023/02/world-oldest-populations-asia-health/
[2] Time-Plot | Line Chart | Data Portal (un.org); UNSD — Methodology

Below are seven key priorities for PPFs as they seek to achieve operational alpha.

Optimize accounts and bank relationships

PPFs, especially when making collections or disbursements internationally, often work with multiple financial service providers and manage dozens of bank accounts across multiple countries. In many instances, this complicates account management – and requires extensive manual processes – that reduce efficiency.

To improve efficiency, PPFs should seek to consolidate their bank relationships, while ensuring they retain access to credit and maintain valuable relationships. Similarly, accounts should be rationalized where possible to reduce administrative burdens while ensuring that important accounts that might be seldom used (such as those associated with tax payments, for instance) are retained.

Improve visibility and control

Optimizing bank relationships and accounts will do much to improve visibility and control. However, further gains are possible by bringing together account balance and transaction information across multiple banks in a single online window or statement (using SWIFT messaging, application programming interfaces or, in the future, technology such as artificial intelligence).

Centralize and automate

An optimized account structure (with improved visibility and control across balances and transactions) can deliver numerous additional advantages, such as the potential to automate activities such as in reconciliation or centralize payments or liquidity management.

Many PPFs deal with multiple counterparts when settling margin calls, either directly with banks or through custodians. Centralization of liquidity management can facilitate access to more timely information and improve visibility, enabling optimal decisions when margining settlements, while deploying excess liquidity into short-term investments such as money market funds to generate additional yield.

Streamline funds transfer

One of PPFs' most fundamental tasks is the transfer of funds – collecting contributions from workers and disbursing payments to pensioners, both domestically and overseas.

As the number of pensioners increases (as described above), and growing numbers retire overseas – especially in Latin America and Western Europe – domestic and cross-border funds transfer volumes will grow. PPFs therefore need to focus on improving operational efficiency relating to the collection and disbursement of funds for pensioners. Fund transfers for operational reasons including grants of financial assistance, subsidies or employee travel needs to be optimized. Focus on the FX requirement for pensioners residing overseas is also important for certain countries.

Again, bank relationship optimization and centralization of activities can help to streamline funds transfers. Where possible, digital payment methods should also be deployed to lower costs and improve accountability. Payments should also be automated to eliminate manual processes, which will lower costs and reduce error rates.

Improve identity verification

Verification of retirement status and proof of life can be time-consuming and complex, particularly for pensioners who live abroad. Logistical challenges when dealing with people in another country can lead to prolonged timeframes to respond to verification requests and increase costs.

The application of biometric technologies could improve convenience for pensioners when certifying their identity as well as enabling PPFs to mitigate fraud risks and reduce losses.

ATP

ATP pays Danish welfare benefits to 88% of the population and is the country's largest pension fund. Examples of best practice include:

Operational Efficiency

- A self-governing public benefits administration, Udbetaling Danmark, was created in 2012 to streamline administration, ensuring uniform case processing and supporting Danish citizens' legal rights.
- Centralizing tasks under a single authority at ATP saves DKK700 million annually, or 26% of operating/ administration expenses.
- Working with customer advisory services in a systematic way saves ATP thousands of labor hours that can be used for other value-adding tasks and contact with citizens; case processing times for welfare benefit applicants have been significantly lowered, for instance.

Digitalization

- ATP consistently invests in IT and digitalization and has replaced legacy systems.
- New systems are more user-friendly, require less employee training time, use data more effectively and support the implementation of new legislation, and the development and integration of new technologies.
- ATP is collaborating with other public sector bodies to develop a coordinated approach that allows citizens and companies to access services in a unified and consistent manner.
- ATP ensures the needs of non-digital savvy citizens are met.

Leverage data to facilitate external reporting

As a service provider to pensioners, PPFs need to issue reports to end users and regulators. Data for these reports largely comes from the PPFs' banks and custodians. Definitions, regulations and laws are not universally standardized which adds significant complexity to PPFs' operations in terms of data management and reporting. This amplifies the importance of optimized bank and custodian relationships and account structures that can help PPFs to more easily compile reports relating to investment performance and risk for pensioners and end users.

In addition, there is a growing requirement for sustainability-related disclosure. While in some instances this is a regulatory requirement, many of these demands are currently initiated by younger pensioners (or people contributing to pensions) who prioritize environmental, social and governance (ESG) issues. Indeed, many younger people expect pension funds to invest their contributions in a way that not only generates economic return but also takes into consideration ESG responsibilities.

As with bank information, PPFs' objective in relation to ESG data should be to source high quality, standardized, verifiable and timely data, and store it in a central location so that it is secure but also easily accessible.

Indeed, many younger people expect pension funds to invest their contributions in a way that *not only generates economic return but also takes into consideration ESG responsibilities.*

Strengthen cyber security

Risks associated with cyber security are challenging to assess. Moreover, the incidence of attacks – while increasing – is relatively low. At the same time, the costs of ongoing cyber security can be significant. The imbalance between the low likelihood of disruption and relatively high prevention costs may prompt PPFs to cut corners.

Failure to take cyber security seriously can result in a catastrophic loss of assets, significant reputational damage, personal responsibility for losses for senior management, regulatory penalties and high post-attack response costs. UK outsourcing firm Capita, which administers 450 pension schemes with a total of 4.3 million members, for private and public sector clients (including local councils, the military and the health service) was hacked in March 2023. The company estimates that costs from the attack will reach £25 million ($30 million); potential regulatory fines related to the attack have yet to be determined.[3]

PPFs seeking to improve their cyber security need to address three main risks:

a. **Third-party exposure:** The risk of data leakage from the PPF's external partners such as investment managers or custodians. Some pension funds have specific requirements regarding data localization and confidentiality settings;

b. **Data exposure:** The risk of malicious hacks resulting in direct data leakage from PPFs themselves;

c. **Cyber fraud:** The risk of hackers impersonating another individual to steal data or money from the PPF.

At a high level, centralization and automation can do much to manage cyber security risks and make it easier to incorporate good cyber security habits into PPFs' daily operating processes. PPFs should also take advantage of the capabilities and knowledge of their banking and custodial partners. In addition, the UK Pensions Regulator's code of practice,[4] which sets out expectations for trustees, provides some valuable guidance. Among its recommendations are the need to:

- Clearly define roles and responsibilities to identify cyber risks and breaches, and to respond to cyber incidents.
- Assess, at appropriate intervals, the vulnerability of the scheme's key functions, systems and assets (including data assets) and the vulnerability of service providers involved in the running of the scheme.
- Consider accessing specialist skills and expertise to understand and manage risk.
- Maintain a cyber incident response plan in order to safely and swiftly resume operations.
- Take actions so that policies and controls remain effective.

Conclusion

The coming years will be critical for PPFs as they navigate multiple challenges and uncertainties, not least demographic pressures. Many PPFs have ambitions to generate alpha from their investment activities and are keenly focused on the diminishing real returns of traditional asset classes, the shift into private equity and other alternative asset classes, and the implications of heightened geopolitical tension.

However, the need to pare down costs in order to generate operational alpha is equally important and should not be overlooked. Ideally, PPFs should take a holistic approach encompassing both investment strategy and operational efficiency, as changes in the former have important implications for the latter.

Improving operational efficiency requires greater transparency, digitalization, automation, centralization, enhanced data security and myriad other factors such as talent management. The scale of the challenge can seem daunting. However, PPFs do not have to embark on their quest for operational alpha alone. Citi provides advisory services and a comprehensive range of solutions specifically designed for PPFs' operational ecosystem that can help them achieve their efficiency objectives and ensure they deliver for their pensioners. ■

Improving operational efficiency requires greater *transparency, digitalization, automation, centralization, enhanced data security and myriad other factors such as talent management.*

[3] https://www.theguardian.com/business/2023/aug/04/cyber-attack-to-cost-outsourcing-firm-capita-up-to-25m
[4] https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/full-draft-new-code-of-practice.ashx

MDBs and other development finance institutions continue to represent a predominant source of funding for emerging market countries and most of it is denominated in hard currency.

De-Risking Emerging Market *Hard Currency Debt*

Volatile markets have brought the importance of de-risking US dollar debt into focus. While some borrowers are averse to de-risking their hard currency debt by the potentially higher funding costs of converting borrowing to local currency, this is not the only option. There are myriad options to de-risk hard currency debt. In continuation we share recent successful transactions along with ongoing opportunities with Multilateral Development Banks (MDBs) and their EM borrowers across government, SOE, local development banks or private sector.

MDBs and other development finance institutions continue to represent a predominant source of funding for emerging market countries and most of it is denominated in hard currency. Typically, capital is both sourced and extended in US dollars. In good times – when exchange rates are stable and interest rate volatility is low – borrowing and lending in USD may be a viable strategy and provide cost effective financing.

However, during times of greater systemic risk and sporadic global financial shocks such a strategy may expose borrowers to severe risks and losses. The devaluation of local currencies effectively increases outstanding debt in local currency terms.

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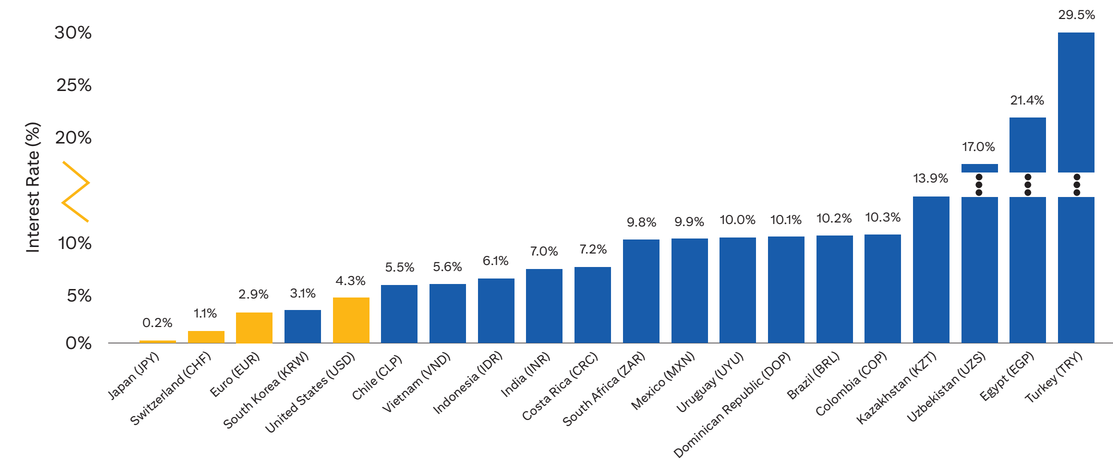
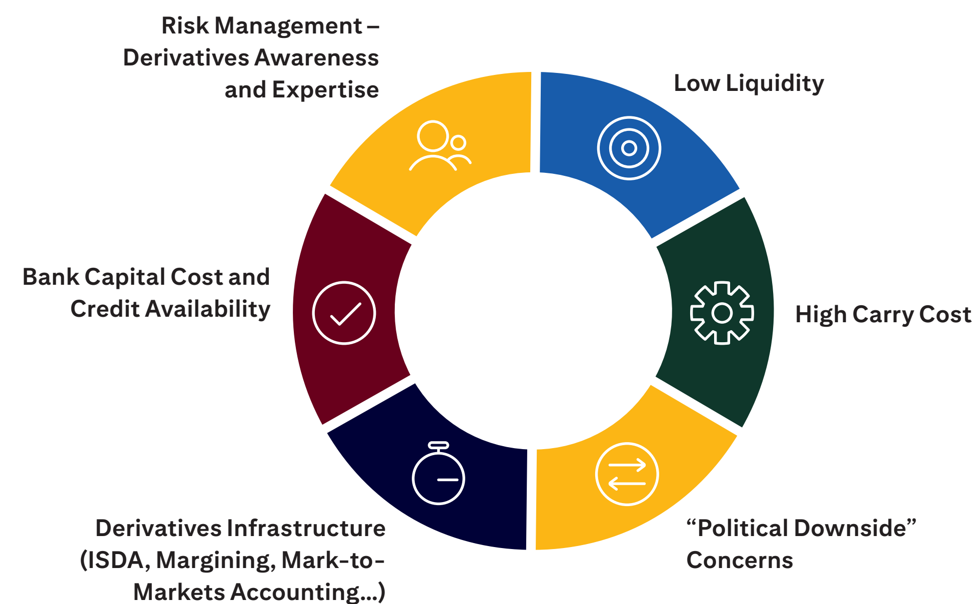
Selected global 10yr DM (yellow) and EM interest rates



After many years of broadly benign conditions, the macro environmental has decisively shifted in the post-pandemic period. Market volatility has increased and inflation, interest rates and commodity prices are significantly higher than in past years. While hard currency interest rates remain lower than those in emerging markets, some borrowers have learned painful lessons about the potential hazards of borrowing in a hard currency without putting in place strategies to de-risk their debt.

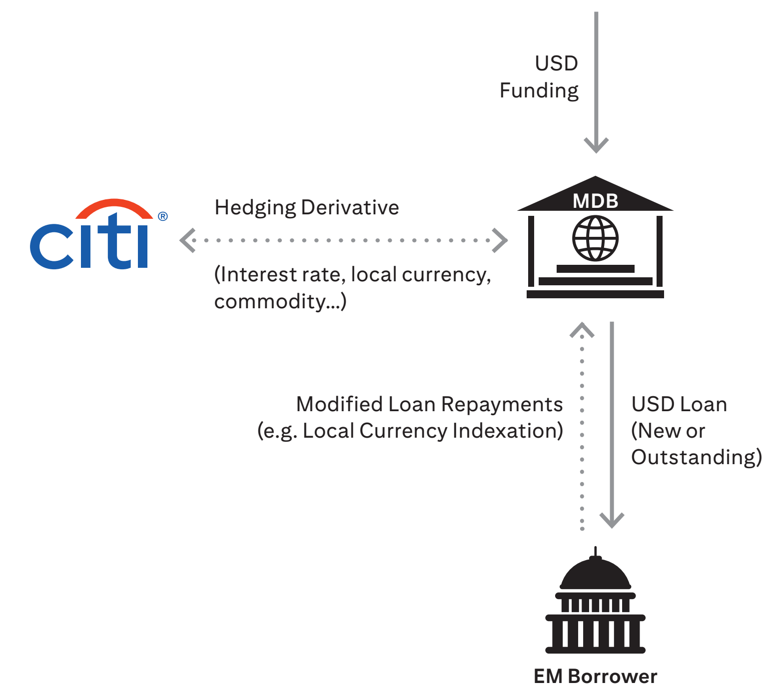
Challenges in de-risking EM hard currency debt



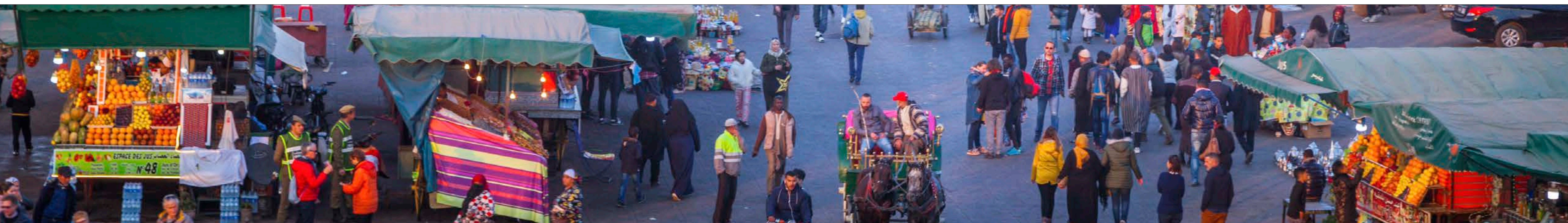
De-risking mechanics

Many MDBs recognize the risks that US dollar borrowing presents. To address the problem they may include embedded protection in their loan agreements via an elective conversion clause. This clause allows borrowers to request the lender to convert the loan into a local currency, or alternatively into other hard currencies such as EUR, JPY or CHF. Some elective conversion clauses may alter the interest rate; in certain cases the repayment of a loan may even be indexed to a basket of currencies or the value of a commodity.

MDB debt de-risking mechanics



A flexible loan agreement with a conversion clause is a powerful instrument for borrowers. It allows them to obtain currency protection without the need to execute a derivative in the market, which requires them to have ISDA or CSA agreements, infrastructure to account for daily mark-to-market of a derivative, and to set aside liquidity for margining. De-dollarizing debt via a loan conversion mechanism also often results in lower credit and liquidity charges, as the swap is ultimately executed with the MDBs, which have good credit ratings and a competitive bidding process.

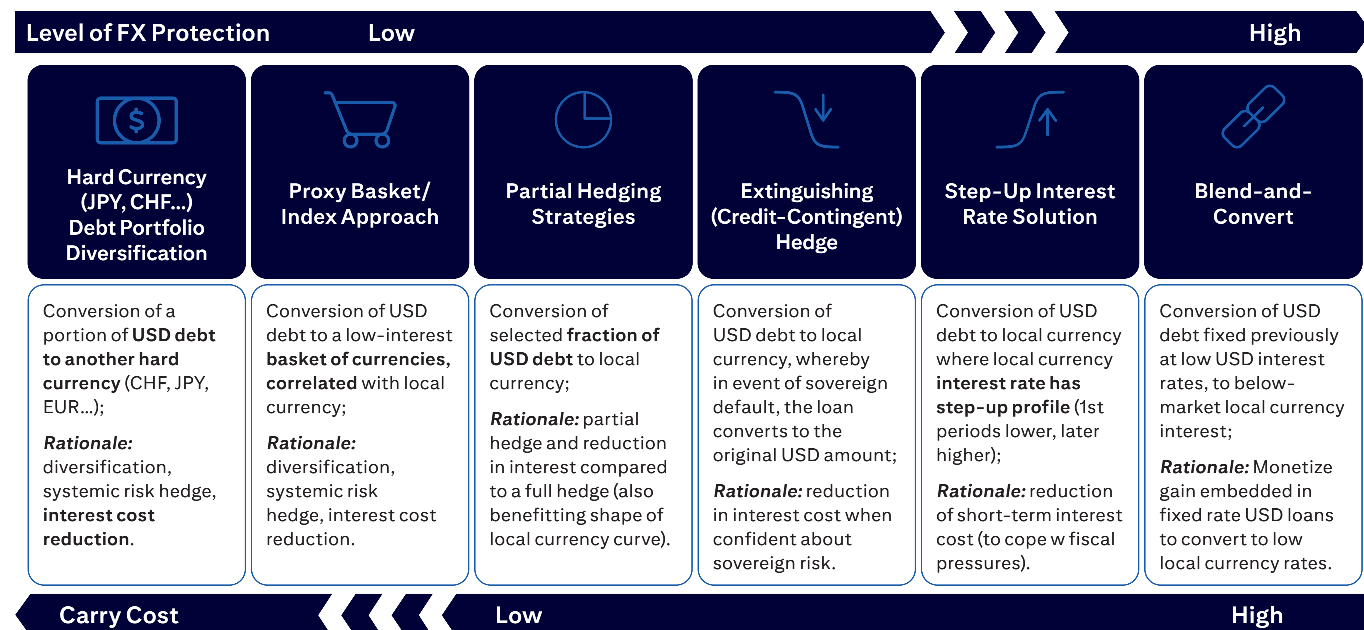


Cost reducing strategies

While de-dollarizing debt via a loan conversion is practical for borrowers, the mechanism does not address some other challenges when hedging against EM currency devaluation. The most important of these are the increase in interest costs – as a consequence of higher EM interest rates – and limited liquidity (especially for hedging frontier markets).

Fortunately, there are a number of alternative strategies that borrowers can pursue to achieve meaningful protection against the types of adverse market events that have occurred in the past few years. While these strategies – which are ordered by the amount of protection they offer – may not eliminate risk entirely, any hedge is much better than not hedging at all.

Hedging cost-reducing strategies



1. Blend and convert

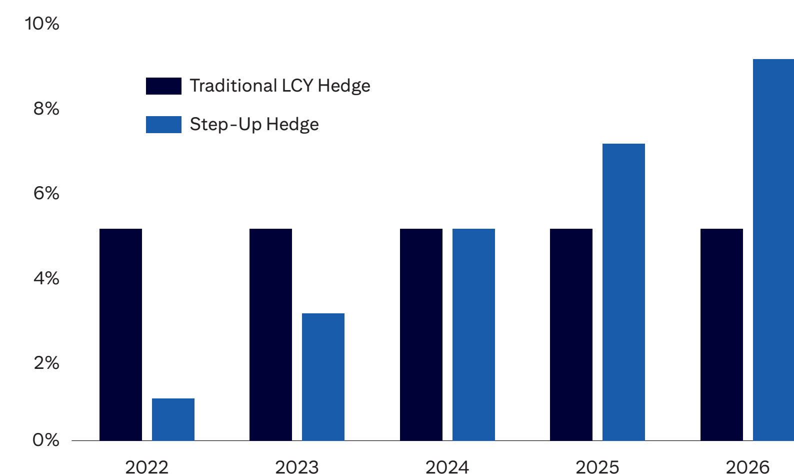
Blend and convert – where borrowers that have previously borrowed at low interest rates in USD (or other hard currencies) convert to local currency – has become increasingly popular as USD interest rates have risen recently. This strategy enables borrowers to achieve a significantly lower local currency interest rate than the current market rate, effectively monetizing the gain they achieved by fixing dollar rates at an advantageous time.

2. Step-up interest rate approach

For borrowers facing fiscal pressures or unexpected expenses in the current year, a step-up interest rate approach could represent an attractive hedging solution. The loan can be converted so that the interest rate for the first few years is very low or near zero to reduce the financial burden for the borrower in times of distress. In later years – when the borrower anticipates an improvement in the fiscal situation – the local interest rate is commensurately higher.

Local currency step-up hedge

Comparison of LCY interest rates in traditional vs step-up de-risking



3. Partial local currency hedging

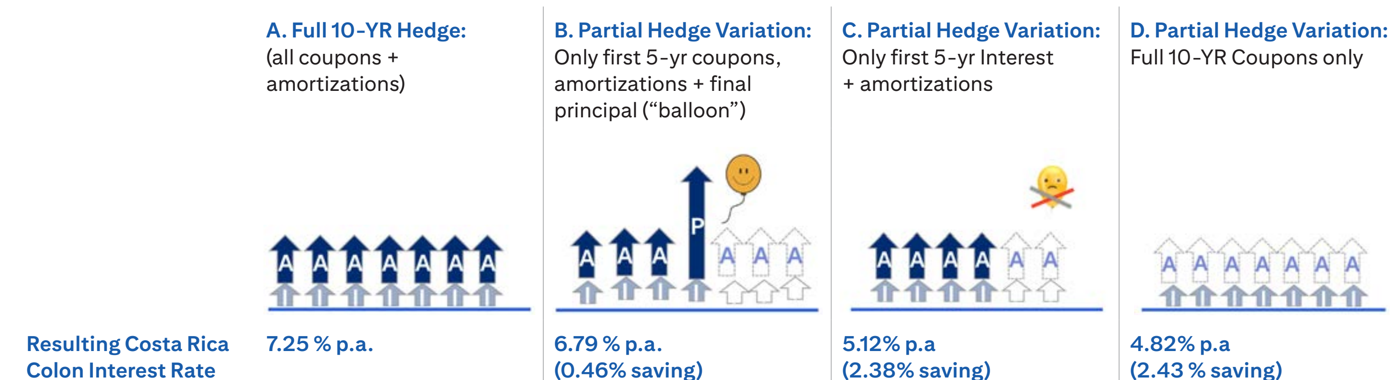
Where borrowers have very long tenor MDB loans and their local currency market is illiquid and/or has steep local currency yield curves, partial loan conversion is a practical strategy to reduce hedging costs and address local market illiquidity.

The borrower can choose to convert only interest and/or amortization payments for the first few years into local currency, while keeping the long end of the loan in USD. Thus the borrower achieves payment certainty in the near term as well as valuable currency protection at an attractive rate. Over time, as the tenor of the loan shortens, the strategy can be replicated to capture upcoming flows. As an alternative, borrowers might choose to hedge either coupons or principal in order to reduce the cost of hedging.

Where borrowers have very long tenor MDB loans and their local currency market is illiquid and/or has steep local currency yield curves, *partial loan conversion is a practical strategy to reduce hedging costs and address local market illiquidity.*

Partial local currency hedging strategies

Costa Rica Colon 10-YR amortizing loan example:
Cost comparison of full vs various partial hedging strategies



4. Credit-extinguisher local currency hedge

Credit-extinguisher currency hedges, also known as credit-contingent hedges, are a relatively low-cost way of achieving a full local currency hedge. A borrower converts a USD loan to local currency via a hedge that is contingent on the default of a related party, usually the local sovereign credit: upon sovereign default, the loan reverts back to the original USD amount (less any transpired amortizations).

Any default by the sovereign is likely to result in significant local currency depreciation. So while a credit-extinguisher currency hedge offers a full local currency hedge during the lifetime of the hedge, it still carries some risk. Hence, a credit-extinguisher hedging strategy is best deployed when a borrower seeks a full local currency hedge at a reduced interest rate and is confident about the sovereign credit risk outlook.

Credit-extinguishing savings are typically positively correlated with the local currency interest rate, tenor and sovereign credit default swap.

Indicative 15Y vanilla swap vs extinguisher swap levels

	BRL	COP	IDR	INR	MXN	PEN	PHP	ZAR
Vanilla Rate	10.42%	10.90%	6.34%	7.22%	9.95%	6.11%	5.72%	9.96%
Extinguishing Rate	9.32%	9.94%	5.87%	6.91%	9.30%	5.76%	5.29%	8.70%
Savings (bps)	1.10%	0.96%	0.47%	0.31%	0.65%	0.35%	0.43%	1.26%

5. Proxy hedging strategy

In cases when the borrower's currency is high-yielding and the underlying need for hedging is large, a proxy hedging strategy that uses a correlated portfolio of lower yielding currencies can be deployed.

Citi has developed a proprietary model that utilizes the efficient frontier approach to determine the appropriate portfolio for borrowers. Based on historical performance and using simulation, the model approach identifies the optimal proxy hedge, providing the lowest risk (volatility) for a given interest cost, and the lowest interest cost for given risk (volatility).

Implementing a proxy strategy is statistically expected to reduce the volatility of USD debt, as measured in local currency, and may increase resilience to systemic risk, as the proxy portfolio is likely to move in the same direction as the local currency. It also reduces the carry cost compared to the local currency. Finally, the approach would also enable borrowers to hedge a significantly larger notional amount (exceeding several billion USD) than would typically be available for a single EM, especially frontier, currency.

6. Hard currency diversification

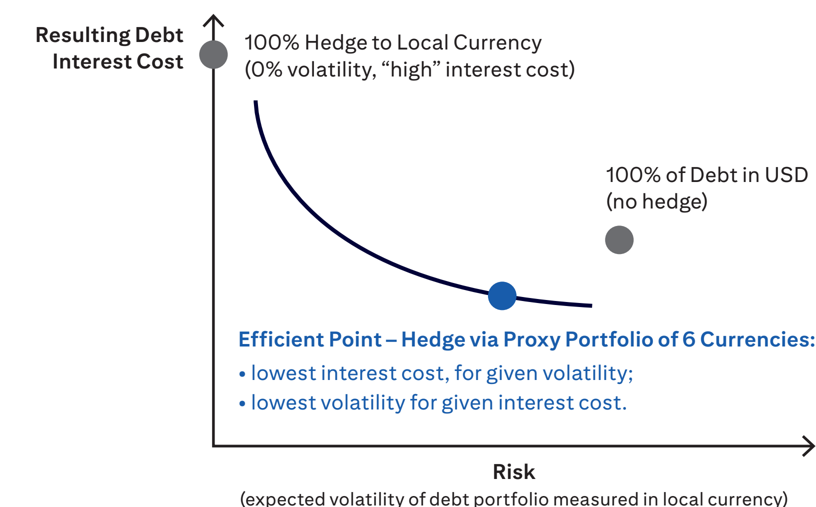
USD is the principal currency for MDB borrowing and lending. However, borrowing in a single currency necessarily creates risk, especially during a systemic event when the majority of currencies depreciate against USD during a so-called "flight to safety".Diversifying to other hard currencies (such as CHF or JPY) is therefore statistically beneficial in terms of risk mitigation and can be a valuable de-risking strategy when local currency hedging options are unavailable or too costly.

Moreover, borrowing in low yielding currencies, such as CHF or JPY (which have interest rates close to zero), can significantly reduce the interest cost that a borrower carries on their debt.

Of course, borrowing in a non-USD hard currency does not provide full protection against local currency devaluation. However, it does offer potential protection against a systematic risk event such as war, a financial crisis or other global shocks, which would ordinarily result in a majority of world's currencies (and other financial assets) depreciating against the dollar.

Efficient frontier simplified illustration

Comparing full hedge, zero hedge and proxy hedge



Conclusion: It's time to act

There are a wide range of hedging strategies available for borrowers accessing funds from MDBs and other development finance institutions. Moreover, these strategies are not just suitable for central and local government and state-owned enterprise borrowers. They can be helpful for any other entities borrowing from MDBs, including cities and municipalities, infrastructure projects and local corporate and financial sector entities.

Not all de-risking and hedging strategies will be available to all borrowers in all circumstances. Furthermore, borrowers need to carefully consider the most appropriate option given the market environment and their circumstances. Nevertheless, there are numerous full and partial hedge options or other de-risking approaches that can accommodate borrowers' needs and their cost considerations. In addition, the market continues to evolve as new strategies are deployed and opportunities constantly emerge.

The need for effective de-risking strategies continues to grow. The market environment and geopolitical situation remains uncertain and fluid. Development finance institutions active in the debt market – as well as the public and private sector entities that they lend to – in all jurisdictions should seek support and guidance to help them identify the most appropriate de-risking strategy when borrowing in hard currencies. Indeed, MDBs should work to help educate their clients to understand the benefits of risk management and the options available. Choosing the right strategy can have a tangible impact on borrowing costs and significantly mitigate risk for their clients, helping MDBs and other development finance institutions to more effectively achieve sustainable growth and other objectives. ■

As custodians of taxpayers' money, it is imperative that governments maximize security, limit potential fraud and meet compliance requirements in order to ensure effectiveness, strengthen credibility and grow citizens' trust.

Account Verification: *A Must Have for the Public Sector*

Gary Schneider

Head of North America Public Sector Group, Corporate Banking

Joseph Polselli

TTS North America Payments Business Execution Head & Citi® Verify Product Manager

Account verification services can significantly reduce misdirected and potentially fraudulent payments to citizens and companies, improving satisfaction and reinforcing confidence in payment processing for public sector entities.

Governments and public sector entities make countless payments to citizens and organizations for social security, pensions, tax and general business. As custodians of taxpayers' money, it is imperative that governments maximize security, limit potential fraud and meet compliance requirements in order to ensure effectiveness, strengthen credibility and grow citizens' trust. One important way to do this is through account verification services.

In the US, Early Warning Services is the custodian for the National Shared Database which consists of hundreds of millions of account details contributed by approximately 2,500 financial institutions. This database is primarily used to support account validations, but also has the ability to support validations against tax ID and Social Security numbers associated with the bank account. Some banks layer additional functionality on top of information from the database.

The National Shared Database equips banks with the tools needed to help public and private sector clients to fight potentially fraudulent payments, which are a significant and growing problem. In 2022, the National Shared Database was used to alert financial institutions to $13 billion of high-risk transactions, with more than 2.7 billion checks screened, 49 million new accounts screened and $1.4 billion in potential check fraud avoided.[1]

[1] https://www.linkedin.com/posts/early-warning-services_national-shared-database-activity-7105211612520742913-kU_d/

International account verification

The National Shared Database is a US-only product and can only be accessed by entities within the US. However, pre-validation and other verification services are offered across various markets from a number of Fintechs and other data aggregators such as SWIFT.

Open Banking, where banks share customers' transaction and other account details (with their permission) with other third parties is long established in the EU and the UK (and is gaining momentum in Latin America): it can also potentially be used for account verification.

For governments and public sector entities that make international payments – perhaps to retired citizens overseas or foreign suppliers – having a consistent way to access account verification services in other countries could be valuable. Citi is working to integrate multiple offerings into its Citi Verify solution to give governments a comprehensive way to validate account details globally.

How account verification works

Account verification confirms that a citizen or company's bank account is open and valid and that they are the owner or beneficiary of the bank account.

Typically, it is not part of a regular payment flow. Instead, it is a pre-validation tool. Governments and public sector entities may choose to do a one-time check of their existing payee repository to validate status, name, and owner. These details can be validated on a single-entry basis or – as is more likely for government or the public sector given large payment volumes – either as a batch file or via application programming interface (API). Validation takes place in real time.

After checking the existing database, any new payees, or citizens and vendors that change their account details, can be quickly and easily validated as required.

Checking the details of existing payees that change their account details is especially important. 'Change of banking details' scams are extremely common, with fraudsters intervening in the communications between suppliers or citizens and the government – often via phishing attacks – to substitute bank details and direct all future payments to the new alternative bank account.

Account verification also supports the NACHA Web Debit Account Validation Rule, which became effective in March 2021. The Rule requires all entities (including those in the public sector) that initiate consumer ACH debits via the internet or a mobile device to validate the consumer's account prior to the first debit transaction.

Account verification *confirms that a citizen or company's bank account is open and valid* and that they are the *owner or beneficiary of the bank account.*

Reinforcing trust with citizens and companies

Account verification is a relatively new tool for both the public and the private sector. However, adoption should be a priority for any public sector entity that makes payments to citizens or companies, given that account verification tools can help to reduce the risk of improper payments, enhance security, and drive operational efficiency. Account verification also offers governments and public sector entities an opportunity to act as a model to the private sector.

While there is a cost associated with account verification, the saving realized by helping to reduce potential fraud can be greater. In addition, account verification can strengthen the relationship between payors and payees by helping to ensure that anticipated payments arrive to the intended party by limiting the chance for a misrouted or delayed payment.

Implementing account verification can be straightforward with some banks, such as Citi, integrating the solution into existing banking tools. For companies being onboarded as suppliers to the public sector, account verification can be integrated into a broader onboarding process. ■

While there is a cost associated with account verification, the saving realized by helping to reduce potential fraud can be greater. In addition, account verification can strengthen the relationship between payors and payees by helping to ensure that anticipated payments arrive to the intended party by limiting the chance for a misrouted or delayed payment.

For almost two decades, Global Treasury has delivered enormous benefits for World Vision while building a valuable network with peer development organizations.

World Vision's Global Treasury: *A Tool Supporting Transformation*

John Finnigan
Global Head of Development Organizations

Chris Tynan
Public Sector Group, Corporate Banking

World Vision (WV) is a Christian relief and development organization with annual revenues of over $3 billion and operations in nearly 100 countries. It delivers community-based, sustainable transformational development initiatives, focused especially on the needs of children. WV also provides emergency relief that assists people impacted by conflict or disaster and promotes justice by seeking to change inequitable structures that negatively affect the poor.

For WV's Global Treasury, facilitating this mission is a complex and constantly changing challenge. Ensuring financial oversight, managing risk, and moving money to and within fragile countries is a formidable task.

"Certainly, the mechanics of making payments to many of these countries are incredibly complex," says WV's Head of Global Treasury Kathryn Powers. "Moreover, because of the nature of these countries, the challenges can be compounded by the need to ensure compliance with U.S. regulations such as Office of Foreign Assets Control (OFAC) sanctions. While these controls are important for reasons such as the prevention of terrorism, they can have unintended consequences such as inhibiting the ability to access banking services that are required to fund life-saving operations and supplies."

Powers joined WV as its first full-time treasurer in 2006, and since that time has overseen a transformation from a department tasked with sending U.S. dollars to local offices on a monthly basis to a full-fledged department comprised of three major operating functions: cash management, foreign exchange and risk, and insurance. A fourth function, treasury innovation, leadership and education (TILE), facilitates dialogue and collaboration amongst peer organizations, including other global development organizations (GDOs), foundations, and universities that operate globally.

Treasurers roundtable

In 2011, along with Catholic Relief and Childfund, World Vision established the Treasurers Roundtable. The purpose of the coalition of treasury leaders at major global development organizations, foundations and educational institutions is to share treasury management challenges, experiences and best practices, as well as advocate for their interests with regulators and government.

The Roundtable has monthly webinars and convenes in person once a year for a broad program looking at banking, financial, compliance and technology issues. It also operates an online members' chat for practitioners to share information candidly and confidentially among their peers on topics ranging from bank relationships to treasury management systems. The forum has done much to encourage collaboration and develop a strong community of treasury and insurance professionals with shared interests and objectives.

The same drive that prompted Global Treasury to help establish the Treasurers Roundtable has more recently resulted in the development of its treasury innovation, leadership and education (TILE) function. TILE is intended to address persistent challenges across the sector, not just through advocacy but also through innovative use of technology, reflecting the ethos of WV's own Global Treasury.

Long-term vision

Although the nature of WV's work requires Global Treasury to respond quickly to unforeseen challenges, the department's transformation has largely followed a blueprint developed in 2008 by Powers and Ashwin Ramji, Global Assistant Treasurer. After careful consideration, Powers and Ramji developed a strategy and roadmap with goals including:

- the centralization of all foreign exchange risk management activities within Global Treasury to capture a holistic view, leverage expertise and technology, and minimize transaction costs;
- 18-month cash flows forecast on a rolling quarterly basis to smooth cash flows and improve cash management;
- the centralization of payables and purchasing operations to ensure effective foreign exchange risk management by aggregating exposures; and
- the consolidation of global bank accounts with preferred banking partners to provide transparency of operations and protection of cash.

In the years since the strategy was devised, Global Treasury has achieved much of what was planned. Although the strategy focused primarily on foreign exchange strategy, its recommendations have touched all aspects of Global Treasury. The strategy has allowed WV to determine the level of risk that it is willing to accept as a consequence of operating in countries with underdeveloped capital markets and to manage that risk efficiently.

The team has worked diligently to establish a high degree of trust within the organization and partner with banks and technology providers to incrementally achieve efficiencies. Only on rare occasions has it adopted a "big bang" approach. One example was WV's bank rationalization project, which overhauled the organization's approach to banking partners. Stronger relationships were established with a select few global banks (including Citi) that matched WV's operating footprint, significantly reducing the number of physical accounts in use throughout the partnership, improving transparency of fees and other costs.

Technology is key

Underpinning Global Treasury's past and future success is its willingness to push the boundaries of technology: it has adopted a bold approach compared to many other GDOs and especially given its constrained budget. WV was one of the first GDOs to register its own SWIFT BIC in 2009, following SWIFT's introduction of its SCORE program that allowed corporates to formally register with SWIFT rather than rely on access through SWIFT consolidators or bureaus. Global Treasury has leveraged its BIC to gain greater visibility of global bank balances and transactions across its operations around the world. While initially intended to assist Global Treasury to develop the rolling cash flow forecast planned in its blueprint, that visibility has made Global Treasury the organization's "source of truth" for such data, which can be used to achieve efficiencies in other departments. For example, Global Treasury is currently supporting Global Finance's project to automate general ledger (GL) reconciliation processes using that bank transaction data.

Like many corporate treasuries, the biggest technology spend in Global Treasury's budget is its treasury management system (TMS). Dissatisfied with the limitations of prior systems, Global Treasury launched an RFP process in 2018. Vendors participated in two rounds of demonstrations, each with increasingly complex scenarios using WV's own data, the result of which determined the final selection.

While many corporate treasuries utilize their TMS to achieve efficiency within their departments, Global Treasury sought to use its TMS to achieve end-to-end automation from its clients (each WV entity) to its cash management and foreign exchange units. For example, the TMS allows clients to forecast their unique cash flow needs while giving Global Treasury visibility of both global liquidity and risk exposures; this information is automatically routed to Global Treasury's trading platform and back to the TMS. Global Treasury has now been a customer of its current TMS provider for over five years and has built a strong relationship. In fact, Ramji participates on the provider's Client Advisory Board, which gives WV a voice in setting product's future direction.

In addition to leveraging its TMS for the GL reconciliation process, Global Treasury is partnering to automate and route payables. Previously the responsibility of individual offices, WV began developing and implementing shared service centers in key locations to centralize support functions and reduce costs. Global Treasury has partnered with the shared service center in Latin America to use its TMS to export payment vouchers from its ERP, reformat them according to each bank's file specifications, and send them directly to each bank using either SWIFT or, in the case of Citi, a host-to-host connection. This capability eliminates significant staff time for manual payment processing, reduces errors, and increases cash security by minimizing the need for online banking tokens. "Implementing the Payment Factory is fairly straightforward," says Ramji. "But the real challenge has been building a culture of trust across local offices in the region. Although we had done a lot of work to rationalize bank relationships across the organization, local offices valued control over their cash and their relationships with local banks. They didn't want to give them up. But now that we have demonstrated the value of the Payment Factory as part of the overall P2P process, they are convinced of the benefits and are clamoring to take part!" The Latin America implementation should be completed in 2024, and the P2P team has developed a plan to roll out the Payment Factory across the remaining five regions.

Invaluable insights

- **Engage early – and humbly**
  When World Vision first began to rationalize its banking relationships globally more than a decade ago, it believed the cost and efficiency gains were self-evident. However, local offices did not always have the perspective to understand why long-standing local relationships were being cast aside and found it hard to see the big picture of how bank consolidation would deliver benefits. "Simply involving local offices in early discussions about overall objectives and options goes a long way towards winning support," says Ashwin Ramji, Global Assistant Treasurer at World Vision. "It's certainly something we've taken on board for subsequent projects."
- **Get tech savvy**
  Treasury teams need to learn the language of technology as treasury processes become increasingly digitized. "Technology and treasury people often don't speak the same language," says Ramji. "In my experience, there are a lot of commonalities among Treasury and technology topics, especially when it comes to the safety of data. This common way of thinking about challenges and risks makes it possible for Treasury and technology teams to collaborate if they just take the time to understand each other. When that happens, there is tremendous potential to expand Treasury's influence across the organization through process automation, simplification and transparency."

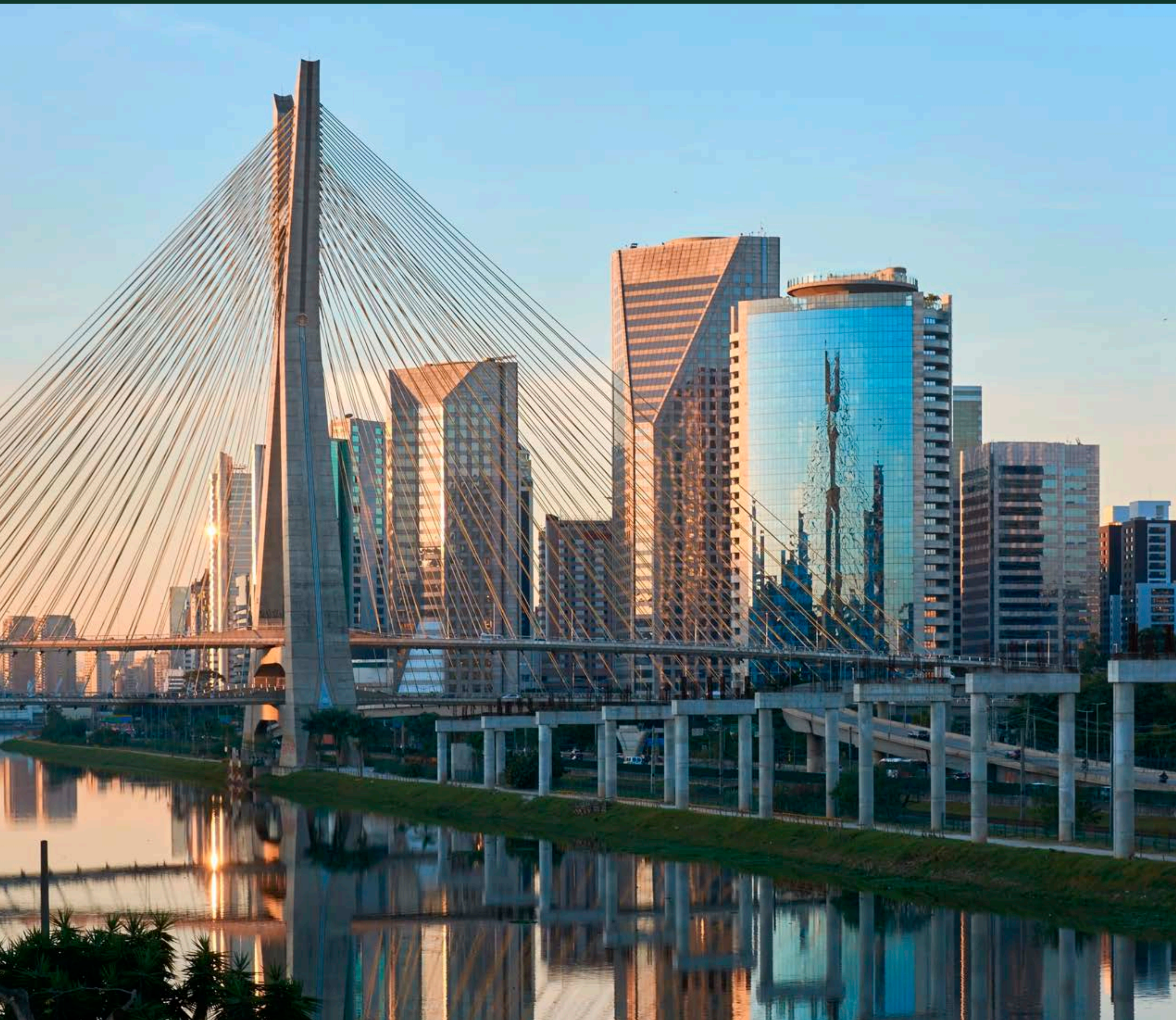
Looking to the future

While Global Treasury has achieved much of the vision set out in its 2008 blueprint – including a layered hedging program – it still has several unfulfilled ambitions. One goal is to develop long-term forecasts that are updated on a quarterly basis. To reduce the potential strain on WV offices associated with this objective, Global Treasury is partnering with Global Finance to overhaul the many forecasting processes across the organization. Together, they plan to develop a single unified process that can distribute data across the organization using such tools as Microsoft PowerApps and PowerBI.

With a robust and reliable long-term forecast, Global Treasury then plans to automate the identification of risk exposures and calculation of hedging layers, which would be routed to and from its trading platform via its TMS. In addition, Global Treasury is starting to leverage PowerBI for its own benefit, not just to provide senior management with real-time reporting of the department's performance but also to provide its clients with greater visibility and transparency of outstanding contracts and remaining exposures. "Data makes our operations more transparent and allows better questions, and accountability," says Ramji. "Within Treasury, we are seeking to be part of this process by making our data available across the broader World Vision financial ecosystem."

While Global Treasury is now reaping the benefits of achieving much of what Powers and Ramji envisioned in 2008, they recognize that WV, financial markets, and technology are very different now. They continue to focus on the future and the next challenge and recognize the necessity of becoming comfortable with the rapid pace of technological innovation. Indeed, Global Treasury is enthusiastic about the potential of APIs to increase automation and efficiency across all of its processes. "We constantly scrutinize these sorts of opportunities because we recognize that rapid changes in technology have the potential to disrupt treasury in an unprecedented way," says Ramji. "Historically, technologies such as treasury management systems were beyond the reach of many GDOs. But falling costs and easier integration mean that the benefits they offer are within reach for all organizations." Powers adds: "For the sake of our operational objectives – helping the most vulnerable in society – we need to work smarter and technology is key to that." ■

Underpinning Global Treasury's past and future success is its *willingness to push the boundaries of technology*: it has adopted a bold approach compared to many other GDOs and especially given its constrained budget.



Since the 1990s, Latin America's expansion of local markets has given governments greater financing flexibility and has resulted in a progressive shift in the region's debt composition.

The Currency Switch: How the Expansion of Local Debt Markets Has Provided *Greater Financial Stability to Latin America*

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In recent decades, Latin American sovereigns have achieved greater financial stability and reduced foreign exchange-rate exposure through the development of local capital markets. This expansion was primarily driven by the region's prior experiences of the 1980s and 1990s when numerous sovereigns faced currency crises, severe economic disruptions, high inflation, loss of investor confidence and capital outflows.

A particularly defining moment for the region was the 1994 Mexican "Tequila Crisis", when the sudden devaluation of the peso and the resulting financial fallout severely impacted the Mexican economy and triggered a contagion effect throughout the region. In the aftermath of the crisis, governments began to shift debt management strategies towards using more local currency debt and developing domestic capital markets.

Since the 1990s, Latin America's expansion of local markets has given governments greater financing flexibility and has resulted in a progressive shift in the region's debt composition. Notably, in the last 30 years, the proportion of foreign-currency debt among the region's six largest economies (Mexico, Chile, Colombia, Peru, Brazil, and Argentina) has declined from an average of 56 percent of total debt in the 1990s to approximately 23 percent as of 2020.[1]

[1] IDB 2023. "Dealing With Debt: Less Risk for More Growth in Latin America and the Caribbean".

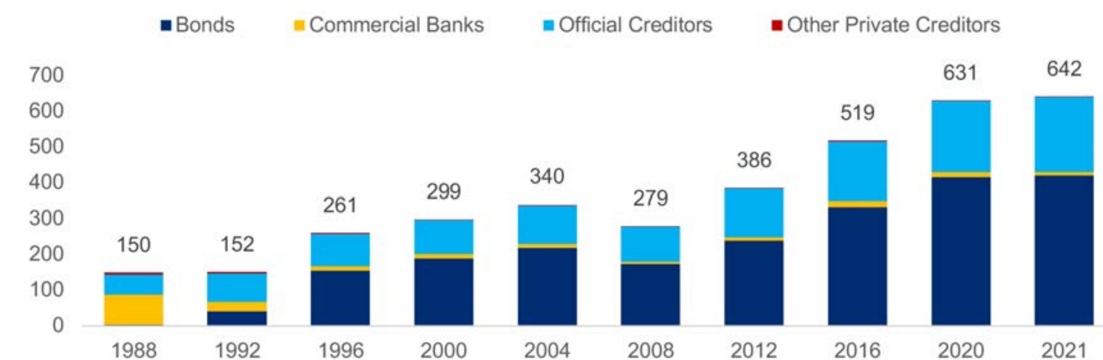
The region's progress towards debt diversification has not only included shifts towards domestic debt but also in the composition of external debt.

The successful development of domestic capital markets has been driven by numerous government initiatives including macroeconomic policies, regulatory frameworks, structural reforms, pensions regulations, the adoption of free-floating currencies, inflation targeting monetary regimes and the establishment of government securities exchanges. In addition, local bond market development has also been facilitated by the partial or complete privatization of pension regimes which require a market for the investment of assets under management.

Latin America's improving financial stability and growing domestic markets

The region's progress towards debt diversification has not only included shifts towards domestic debt but also in the composition of external debt. In 1988, more than 56 percent of general government external debt accrued by the region's middle-and-low-income countries was owed to commercial banks.[2] However, presently, Latin America's middle-and-low-income economies have continued to tap international capital markets and use multilateral and bilateral funding to diversify their debt profiles.

LATAM low and middle income countries' general government external debt outstanding (US$, Bn)

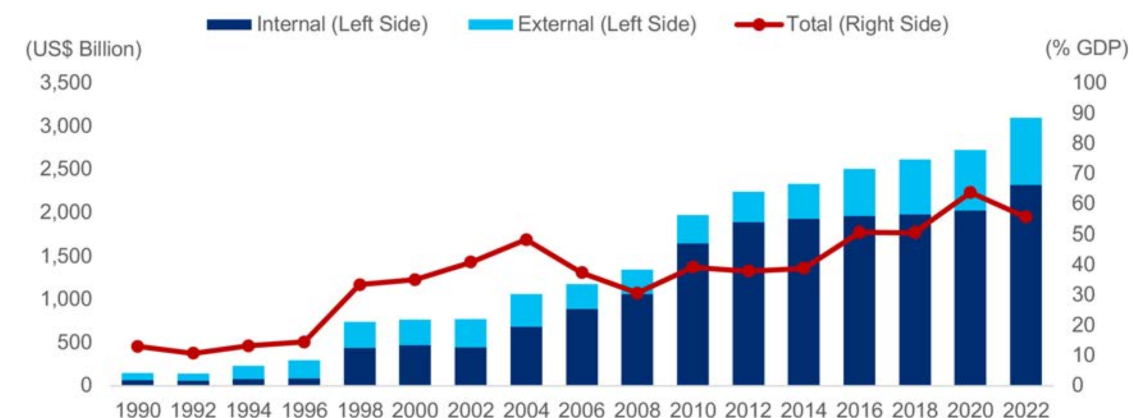


Source: World Bank International Debt Statistics
Note: Data Excludes High-Income LATAM Sovereigns

Latin America's aggregate sovereign government debt has also risen substantially since the 1990s, driven by numerous countries gaining access to global capital markets as well as the expansion of domestic markets. The growth of local-market debt has been particularly noteworthy, central government debt issued locally increased from 57 percent of total central government debt in 2002 to 75 percent by 2022.

[2] World Bank International Debt Statistics

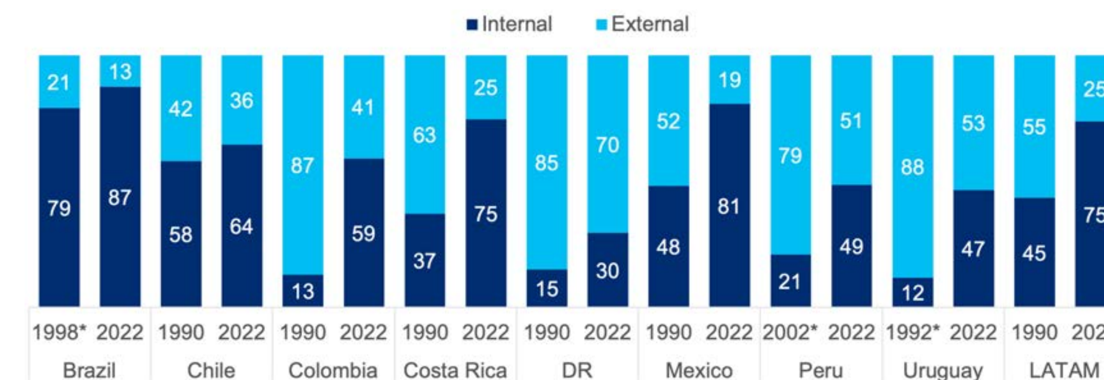
LATAM total central government debt



Source: Economic Commission for Latin America and the Caribbean (CEPAL)
Note: Brazil added to the dataset in 1998; Peru added in 2002

While the region's debt accumulation slowed during the Great Financial Crisis in 2008, the prolonged period of low interest rates that followed saw Latin American sovereigns shifting to domestic markets in greater volume than prior periods. The debt composition changed drastically across the major Latin American economies during the 2010s, with numerous sovereigns issuing sizable internal government debt securities and gaining access to longer maturities. For example, Colombia, Costa Rica, the Dominican Republic, Peru, and Uruguay have more than doubled their shares of internal debt relative to total over the past 20 to 30 years.

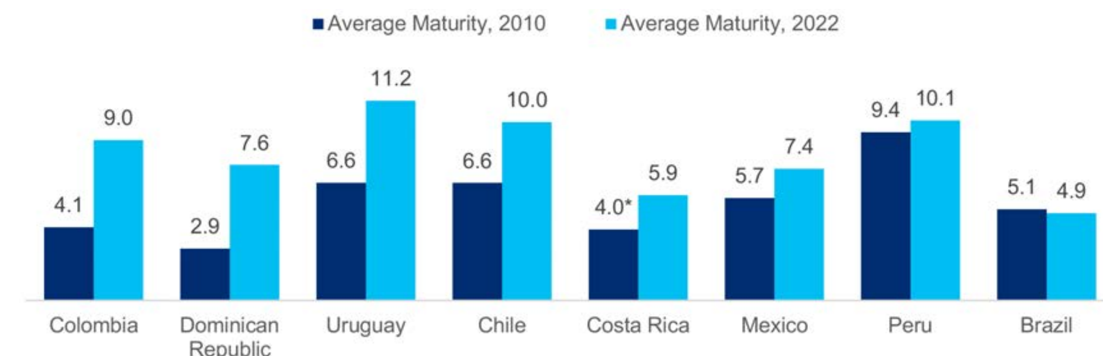
LATAM central government internal versus external debt (% total)



Source: Economic Commission for Latin America and the Caribbean (CEPAL)

The expansion of local markets has also helped to build trust in local currencies among domestic and international investors. This is highlighted in the remarkable advances that local currency-issuances have made over the past 3 decades. Maturities have become longer dated, which reduces refinancing risk and reflects investor trust in locally issued government securities.

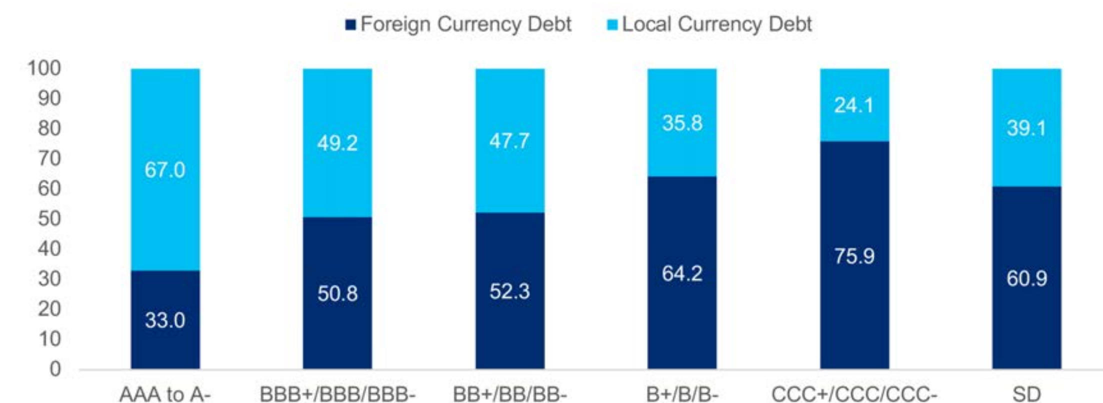
Average maturity on internal debt (Years, 2010 vs 2022)



Source: Inter-American Development Bank Standardized Public Debt Database
Note: *Costa Rica average maturity reflects 2009

The region's debt currency switch has also helped countries increase their sovereign credit worthiness. Recent improvements to the sovereign ratings of several Latin American countries have coincided with significant increases in their local currency debt relative to foreign. For example, Uruguay, Peru, and Colombia each had reached 40 to 50 percent or more local currency debt as a percent of total debt when they were upgraded to investment grade between 2008 and 2013. While other factors played a role in reaching this milestone, the development of local markets, increased financing flexibility, and reduced external vulnerability risks were key for helping to improve these sovereigns' credit profiles. Furthermore, the exhibit below highlights that there exists a correlation between higher levels of local currency debt (relative to total) and better sovereign ratings, which can result in benefits such as improved financing costs and more access to funding sources.

Latin America's sovereign debt composition (2023, % total GG debt)



Source: Moody's Investor Service
Note: Data excludes Caribbean sovereigns; 'AAA to A-' rating group only includes Chile; 'SD' rating group only includes Argentina

The development of local currency instruments and enhanced financial stability

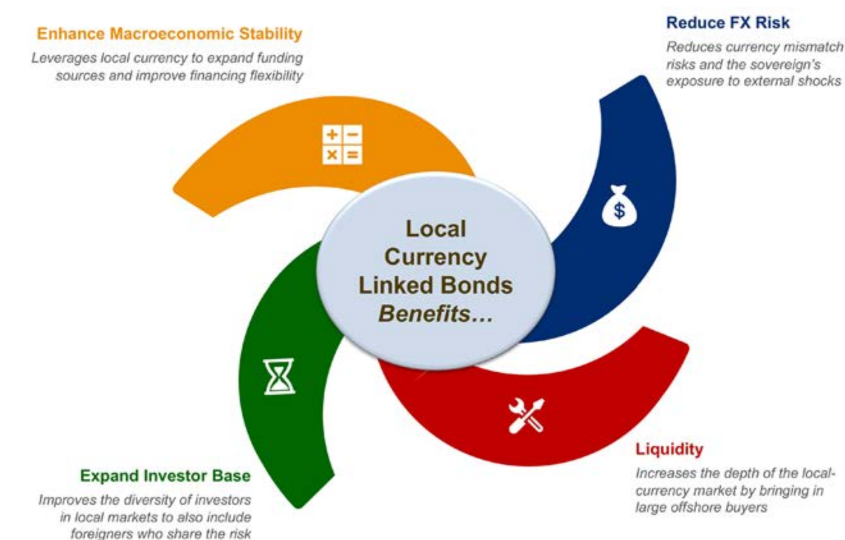
The expansion of domestic capital markets has been pivotal for providing governments with greater financing flexibility and reducing currency mismatch risks. The IMF has found there is a positive correlation between the expansion of local debt markets and financial stability in Latin America. Therefore, sovereigns seeking to reduce exposure to external adverse shocks and improve fiscal resilience against FX volatility have several strategies available to achieve these goals, including: issuing government securities in the local market, de-dollarizing multilateral debt, using Global Depository Notes or issuing local currency-linked external bonds.

As countries are increasingly embarking on the journey towards de-dollarization, derivatives strategies have emerged as a powerful tool, helping countries to effectively manage currency exposures and navigate the complexities of de-dollarization. A recent report by the International Monetary Fund (IMF) found that the use of derivatives for de-dollarization has increased significantly in recent years[3], with the average share of derivatives used for these transactions doubling from 10% in 2010 to 20% in 2021. Derivatives, particularly currency swaps, options and futures provide a valuable mechanism for hedging against currency risks. By employing these instruments, countries are protecting their economies from the impact of currency volatility. In cases where countries are de-dollarizing their debt by utilizing conversion clause with MDBs, they don't need to execute derivatives themselves, thus avoiding the complexities of derivatives but enjoying their full benefits. These transactions can also help to strengthen local debt markets by increasing the demand for local currency-denominated debt.

When a country borrows in its own currency, risks associated with foreign exchange volatility are minimized. This can make the country's debt more attractive to investors and can contribute to a reduction in borrowing costs. Presently, de-dollarization transactions with multilateral agencies such as the IADB, the World Bank, and regional development banks play a crucial role in facilitating transactions and can also affect the currency composition of countries' debt balances by providing an alternative source of financing.

Another solution used by governments is the issuance of international local currency-linked bonds. This solution has increased in the past year and its expanded use has provided issuers several benefits including larger investor pools, higher liquidity in local debt and reduced currency mismatch risks.

Local linked Eurobond benefits



Sovereigns seeking to modify their debt composition and reduce foreign currency funding could use these bonds as an alternative. However, in order to issue local currency-linked bonds, sovereigns must first take certain steps, including working with a bank and legal counsel to consider the below criteria. Although local currency-linked bonds may be more expensive than foreign currency bonds, sovereigns that have issued these bonds note that the benefits can supersede the costs in the short to medium term, especially in the event of adverse external shocks.

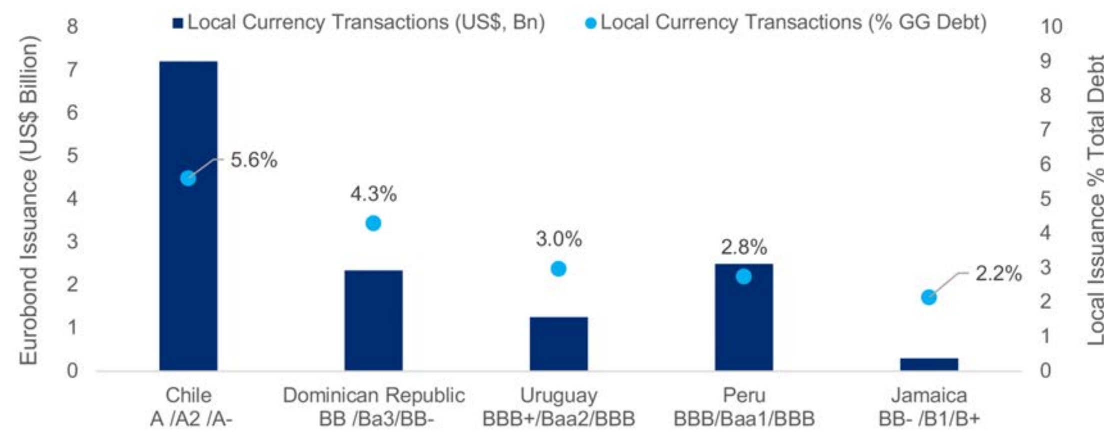
[3] IMF. 2022. "The Stealth Erosion of Dollar Dominance: Active Diversifiers and the Rise of Nontraditional Reserve Currencies".

Local-currency offering considerations

	Sovereign Local Currency Linked Bond
Overview	• International bond offering • Denominated in local currency • Fixed rate coupon • Local, regional and international institutional investors
Currency	• Local currency linked (settles in USD and debt service paid in USD). The FX mechanism is determined in advance
Sizing	• Varies by sovereign's financing needs and investor appetite
Marketing	• May need Deal roadshow (subject to each sovereign)
Tenor	• Depending on first issuance or regular issuer
Pros	• New source of liquidity • Reduces reliance of USD funding • Strong interest from international investors in the product • Provides hedge against excessive exposure to FX risks
Cons	• Higher execution risks, potential impact on FX market

For example, Chile, the DR, Peru, Uruguay, and Jamaica all issued local currency or local currency-linked international bonds this year, highlighting the growing demand among sovereigns for these solutions. At the same time, there was investor interest in these securities (which can vary depending on multiple factors). Nevertheless, the share of new bond issuances of this sort in the first six months of 2023 increased to 14% from 8% in 2022. In the first half of 2023, there were issuances in local currency or linked including: Chilean Peso, Dominican Peso, and Peruvian Soles.

Sovereign local currency linked transactions, *Citi has led the below transactions*



Note: Includes local currency and local currency-linked transactions

A local currency-linked bond is a financing alternative that can provide numerous benefits to sovereigns. This is illustrated by the Dominican Republic's case below.

DR – local liability management and local currency-linked Eurobond

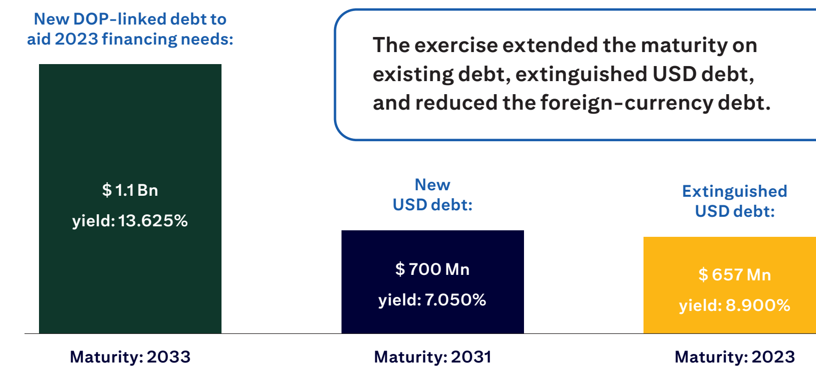
In line with the Dominican Republic's policy goal to reduce foreign currency debt, the sovereign pursued several Dominican Peso-linked sovereign bond issuances this year. As a result of the transactions, the country was able to lower its foreign currency debt as a percent of total from 71.8% to 68.7% as of September 2023. The first transaction by the Republic was carried out by taking advantage of favorable market conditions, including the positive momentum generated by the S&P sovereign rating upgrade to BB which helped the DR repurchase its bonds maturing in 2026; the rest of the resources were allocated to the financing needs in the General Government Budget for 2023. In turn, this transaction helped to increase the average time to maturity by 0.23 years, reducing the governments refinancing risk.

Notably the transaction also highlighted the interest in DR peso linked bonds, demonstrating investor trust in the credibility of the government agenda and the currency. Meanwhile, the Government's firm commitment to executing its medium-term debt strategy, reducing both refinancing and exchange risk, was in line to continue making progress towards the DR's goal of reaching 62 percent FX debt as percent of total by 2027.

Example case study: Dominican Republic

Transactions background

- The Dominican Republic's foreign currency debt currently represents approximately 70 percent of its total debt outstanding. In response to this challenge, the government made it a policy priority to continue expanding its local currency debt, investor base as well as reduce its overall foreign-currency exposure and, ultimately, decrease external vulnerability risks.
- In pursuit of its goal, the government issued several DOP-linked international bonds and used the proceeds to execute liability managements.
- In January 2023, the DR priced an approximately US$ 1.8 billion dual-currency offering consisting of approximately US$1.1 billion of new 13.625% Global DOP Notes due 2033 and US$ 700 million of new 7.050% USD Global Bonds due 2031, priced at par. Concurrently with the new issue, the government successfully executed a liability management exercise consisting of a 5-day cash tender offer for its existing 8.900% Global DOP-linked Notes due 2023.



- Later, in September 2023, the DR again priced a new DOP-denominated US$ 1.25 billion senior unsecured 12-year global bond due 2035 that priced at par with a coupon of 11.250%. Concurrently with the new issue, the government successfully achieved another liability management exercise consisting of an accelerated 4-day cash tender offer for its existing 9.750% Global DOP-linked Notes due 2026.

Transaction highlights

January 2023:

- **Largest combined hard and local currency-linked bond offering ever printed by the DR in the global debt markets**, anchored by strong international participation in the Global DOP tranche.
- **First ever DOP-linked liability management exercise done by the DR** and the tender offer achieved the highest ever participation rate. It also achieved the **highest overall hit ratio achieved by the DR in any liability management transaction**.
- **Maturity extension of DOP-linked debt of 10 years and US$ 1.1 billion in new money for 2023 funding needs.**

September 2023:

- **Largest local currency-linked international bond offering ever printed by the DR in the global debt markets**, anchored by strong international demand, representing 60% of the orderbook.
- **Largest-ever DOP-linked liability management exercise done by the DR.**
- **With this transaction, the DR established itself as a leading local currency-linked issuer with deep access to international markets.**

Conclusion

The successful debt currency switch in Latin America has been driven by government actions, reforms, and improved debt management strategies, including the leveraging of multiple local currency funding sources such as local debt issuances, local linked currency external debt, Global Depository Notes, and the de-dollarization of multilateral debt, among other initiatives. All these efforts have resulted in greater local market depth and the greater ability of sovereigns to finance themselves internally or with local currency-linked issuances, which has been key in the face of multiple shocks. The region has demonstrated significantly greater resilience to external shocks today in comparison to previous decades, successfully weathering recent crises. Therefore, sovereigns with policy goals to reduce foreign exchange risks can use local debt as a vehicle to increase funding sources, reduce refinancing risks, improve domestic liquidity, enhance domestic markets and leverage local currency; thereby helping to provide greater financial stability, improve economic growth and reduce exposure to external exogenous shocks. ■

IT TAKES EVERYTHING TO REACH

ZERO

POVERTY

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