Diachronic Changes in the Framing of Metaphors: A Corpus-Based Study of IMF Economic Discourse

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Abstract

This study examines how conceptual metaphors in IMF magazine reports have evolved from 2018 to 2023, spanning the pre-pandemic period, the COVID-19 pandemic, and the subsequent recovery. Drawing on Conceptual Metaphor Theory, Critical Metaphor Analysis, and a corpus-based qualitative method supported by MIPVU, the research tracks changes in dominant metaphorical domains across six selected IMF reports. The results reveal a clear three-phase progression in how metaphors frame economic discourse. Before the pandemic, the economy was primarily depicted through mechanical and structural metaphors, such as an engineered system driven by "engines," with "foundations," and adjustable via policy "levers." During the pandemic, biological and warfare metaphors became more prominent, portraying the economy as a vulnerable body that experiences "scarring," needs "healing," and is "fighting" the crisis. In the recovery stage, metaphors shift to domains such as navigation, ecology, and technology—portraying the economy navigating "storms," producing "green shoots," and being powered by technological "engines" like artificial intelligence. The research shows that economic discourse does more than describe events; it redefines the economy's ontology—from a machine to a body, and then to an adaptive system—thereby reconstructing economic understanding. By emphasizing short-term diachronic shifts in metaphor usage, this study enhances our understanding of how global economic institutions strategically modify their communication during systemic disruptions.

Keywords: MIPVU, Conceptual Metaphor Theory, Critical Metaphor Analysis, economic metaphors, COVID-19

1. Introduction

Metaphorical expressions are a key feature of economic language, allowing institutions to convey complex and abstract concepts such as growth, crisis, instability, and recovery. According to Conceptual Metaphor Theory (CMT) (Lakoff & Johnson, 2003), metaphors are not merely decorative but cognitive frameworks that shape how abstract ideas are understood and communicated. In economic discourse, metaphor's structure thought about markets, policy actions, financial instability, and institutional accountability. In texts from international financial organizations, metaphors strategically shape how uncertainty is presented, legitimize policy decisions, and influence public understanding of economic developments (Skorczynska & Deignan, 2006; Thibodeau et al., 2019).

Previous research has thoroughly examined the use of metaphors in economic discourse. It has identified key metaphorical domains, including mechanical, biological, spatial, and warfare metaphors, present in financial journalism, policy reports, and political speeches (e.g., Cardini, 2014; Gibbs, 2023; Alkharman et al., 2024). However, much of this research either adopts a synchronic approach, examining metaphor use at a specific moment, or employs a long-term diachronic analysis of historical corpora spanning decades. While these studies offer valuable insights into prevalent conceptual patterns, they tend to overlook short-term fluctuations in metaphorical language during rapid global crises.

Institutional economic communication responds quickly to global events. Events such as financial crashes, pandemics, and technological breakthroughs prompt shifts in economic focus, policy messaging, and rhetorical approaches. Despite this adaptability, research on how metaphor use shifts during short but pivotal periods of global upheaval remains limited. The period from 2018 to 2023—encompassing pre-pandemic growth, the COVID-19 crisis, recovery, and rapid digital changes—offers a valuable opportunity to examine how metaphors adapt within a condensed crisis cycle.

This study investigates the limited understanding of how institutional economic metaphors evolve during short-term phases of global disruption. Current research does not clearly explain whether these metaphors remain consistent, are replaced across domains, or shift in importance as economic conditions change rapidly. Without this analysis, our understanding of how institutional economic discourse adapts remains incomplete.

This study investigates how metaphor domains in IMF magazine reports have changed from 2018 to 2023. It aims to identify (1) the main metaphor domains in each period, (2) how their prominence shifts across the pre-crisis, crisis, and recovery phases, and (3) how these

shifts reflect evolving institutional views on economic performance, vulnerability, and policy goals. By conducting a short-term diachronic analysis of official economic communication, the research enhances understanding of metaphor dynamics in institutional discourse and examines how global events shape conceptual framing. Consequently, the study considers the following research questions:

1. What conceptual domains shaped IMF discourse before the pandemic (2018–2019)?

2. How do these domains change during the crisis (2020–2021)?

3. In what ways are recovery and technological transformation framed linguistically (2022–2023)?

4. How do shifts in metaphor domains reflect changes in how IMF discourse depicts economic conditions and policy actions?

This study focuses on how economic realities are framed through metaphor, addressing a gap in current research. While earlier work has explored the use of metaphor in business and in specific crisis situations, little attention has been paid to short-term shifts in metaphorical domains within institutional economic discourse. Therefore, this research contributes to ongoing debates on metaphor, cognition, and economic discourse by offering a timely analysis of how institutional language reinterprets economic conditions amid rapidly changing global events.

2. Literature Review

The study of conceptual metaphors, as presented by Lakoff and Johnson (2003), shows that metaphors are more than linguistic tools; they influence our perception, thinking, and social interactions. The body of literature on conceptual metaphors explores their roles, functions, and uses across languages, cultures, domains, and communication goals, with Conceptual Metaphor Theory (CMT) as the main framework. This theory presents metaphors as fundamental to shaping human cognition and perception, rather than merely decorative elements in texts. Recent research indicates that Gender-Specific Metaphors help establish principles that distinguish men from women, as Tursunovich (2022) argues. Metaphoric expressions affect attitudes, decision-making, and understanding in communication, as demonstrated by Thibodeau et al. (2019). While metaphors are crucial for understanding texts, their use can pose challenges across cultures, especially with Qur'anic metaphoric expressions, as Al-Sowaidi et al. (2021) note.

Khadpe et al. (2020) studied how the choice of metaphorical expressions affects user experience with AI conversational agents, finding that metaphors suggesting lower competence can boost engagement, whereas those implying high competence have the opposite effect. Moreover, metaphors help students grasp complex concepts more easily, as observed by Harper et al. (2024) and Flensner and Von der Lippe (2019). These linguistic devices also apply to climate change discourse, but translating them can be challenging, as Haddad and Mart ńez (2019) concluded. Additionally, research by Rasse et al. (2020), Asare et al. (2024), and Zibin and Hamdan (2019) explores how conceptual metaphors convey poetic and emotional meanings, capable of evoking poetic, sarcastic, and fearful feelings in texts.

Talafha (2023) argues that economic discourse is a rich area for study, yet certain aspects, such as metaphors, require further exploration of how expressions evolve over time. The latest research offers a thorough analysis of economic metaphors across domains, including financial crises and business discourse. These studies highlight the significance of metaphors in shaping public perception and emphasise how cultural and genre-specific factors influence economic communication.

Gibbs (2023) explores pragmatic approaches to economic metaphors, arguing that they do more than merely compare; they actively shape discourse through context-dependent interpretation. The study highlights the complexities of processing economic metaphors online and advocates experimental research to analyze metaphorical expressions in their actual contexts. Similarly, Skorczynska and Deignan (2006) found that metaphor choice varies between scientific and popular business texts, reflecting audience-specific adaptations; notably, scientific business English contains fewer metaphors than the popular variant. Scholars also identify crisis metaphors as the most frequently targeted expressions. Jacobetty and Orton-Johnson (2023) attribute the prevalence of these metaphors to their ability to affect readers by depicting massive destruction, human suffering, and destabilization, tailored to the communicative needs of laypeople and experts alike. The ongoing creation of metaphors supports the idea that economic metaphors, especially during rapid changes like financial crises, are adaptable rather than fixed, as Cardini (2014) suggests. Additionally, Mao et al. (2023) demonstrate how metaphor meanings vary across cultures, specifically comparing Russian and English contexts. They examine metaphors conceptualized as either a living organism or a sick body, concluding that universality is unattainable despite their clarity, because cultural values shape their meanings and influence perception shaped by societal norms.

The existing literature offers a thorough analysis of economic metaphors across fields such as financial crises and business communication. Research highlights the role of metaphor in shaping public perception and how cultural and genre-specific differences influence economic language. Although previous studies have extensively examined how economic metaphors vary across cultures and genres, little is known about their short-term fluctuations—specifically, how their usage evolves in response to changing economic conditions. Most research examines metaphors synchronically as potent conceptual tools. By contrast, this study focuses on recent shifts in the use of metaphor in IMF reports from 2018 to 2024, addressing themes such as global crises, economic stability, and recovery. It underscores how metaphorical language adapts to rapid socioeconomic changes within this brief period.

3. Methodology

3.1 Research Design

This study uses a qualitative, corpus-based approach that integrates Conceptual Metaphor Theory (CMT) and Critical Metaphor Analysis (CMA). CMT frames metaphor as a cognitive process that structures abstract thought through systematic cross-domain mappings (Lakoff & Johnson, 2003), whereas CMA examines the ideological, persuasive, and evaluative functions of metaphor in discourse (Charteris-Black, 2004). The study's design is diachronic and comparative, tracking short-term shifts in metaphorical framing across three defined periods: pre-pandemic (2018–2019), pandemic (2020–2021), and recovery (2022–2023).

The qualitative method enables detailed identification and interpretation of metaphorical expressions, while the corpus-based framework provides systematic data management, transparency, and context-aware analysis (Baker, 2006; McEnery & Hardie, 2012; Darawsheh et al., 2024).

3.2 Corpus Type

The study employs a monolingual corpus composed exclusively of English IMF magazine reports. This specialized, institutional corpus concentrates specifically on official economic communication. Using a monolingual corpus is suitable because the aim is to examine changes in conceptual metaphor within a single institutional discourse community rather than across multiple languages (McEnery & Hardie, 2012). This method allows for a controlled diachronic comparison within a consistent linguistic and institutional context. The study features a specialized, monolingual diachronic corpus of six IMF magazine reports, totaling roughly 12,000–15,000 words, with individual reports spanning 1,500 to 2,500 words. The language register is formal and institutional, focusing on policy-driven economic issues. Themes include global economic outlooks, crisis management, and recovery strategies. The language's interpretation indicates that these reports do more than describe events; they strategically redefine the ontology of the economy—shifting from a machine to a body, and ultimately to an adaptive system—to justify institutional actions. A monolingual corpus is appropriate here to analyze these conceptual shifts within a single institutional discourse community.

3.3 Corpus, Data, and Data Sources

The corpus consists of selected IMF magazine reports published between 2018 and 2023. Reports were deliberately chosen to represent each of the three targeted phases: Pre-pandemic phase (2018–2019), Pandemic phase (2020–2021), and Recovery phase (2022–2023

Table 1. Sample of Thematic Patterns Across the Three Periods and Conceptual Domains

Period	Sample Themes	Representative Metaphorical Expressions	Conceptual Domain
2018–2019 (Pre-pandemic)	Economy as Mechanism	Trade as Navigation	Mechanical
	Policy as Structural Design	solid foundations, structural reforms	Structural
	Trade as Navigation	solid foundations, structural reforms	Navigational
2020–2021 (Pandemic)	Economy as Vulnerable Body	economic scars, healing process	great lockdown
	Policy as Medical Treatment	injecting stimulus, building immunity	Biological
	Crisis as War	fighting the crisis	Medical
	Economy as Immobilized System	fighting the crisis	Constraint
2022–2023 (Recovery)	Economy as Navigational System	navigating uncertainty, weathering the storm	Navigational
	Growth as Organic Process	navigating uncertainty, weathering the storm	Ecological
	Economy as Ecosystem	economic ecosystem	Ecological
	Technology as Driver	AI as engine of productivity	Technological

The selected texts exemplify official institutional discourse on global economic performance, crisis management, and recovery strategies. These reports were selected for their consistent, comparable, and policy-oriented economic communication over the designated timeframe. Purposive sampling was used to ensure that the selected texts accurately reflect major global economic developments relevant to the study's objectives (Paltridge, 2012).

The linguistic register shifts from a technocratic-mechanical tone before the pandemic to a clinical-emergency tone during the pandemic, and finally to a strategic-adaptive tone during recovery. This change indicates a move from technical optimization to life-saving actions, and ultimately to efforts focused on long-term resilience.

3.4 Data Collection Protocol

Data collection followed a structured protocol: reports were gathered from the IMF's official publication archive, and only comprehensive magazine reports on global economic developments were included. Reports consisting solely of statistical summaries or technical annexes were excluded. The texts were converted to a digital format suitable for analysis. This approach ensured comparability across phases and maintained consistency in genre and communicative purpose.

To facilitate data navigation and systematic management of the corpus, a set of selection and organization criteria was formulated. Initially, reports were selected for their relevance to global economic trends and alignment with the three analytical phases: pre-pandemic, pandemic, and recovery. Each report was then meticulously examined to find sections rich in descriptive economic language rather than just statistical data. The data were subsequently categorized chronologically and thematically, enabling comparisons across different phases. Lastly, only excerpts containing potential metaphorical expressions related to economic performance, crisis, and policy responses were retained for

analysis. This organized approach ensured consistency, relevance, and a clear analytical focus throughout the data collection process.

3.5 Data Collection Procedure

Metaphorical expressions were identified using the MIPVU (Metaphor Identification Procedure Vrije Universiteit), a systematic and widely validated method for identifying metaphors (Steen et al., 2010). The procedure involved reading the entire text to establish its contextual meaning, identifying lexical units and determining their contextual meanings, comparing these with their more basic meanings, and marking the unit as metaphorical if a contrast is found and a cross-domain mapping is established. Only lexical units related to economic performance, crisis, instability, recovery, and policy that were used metaphorically were kept for analysis. Applying MIPVU improves the transparency and reproducibility of the methodology (Steen et al., 2010).

Data collection followed uniform steps across the three periods to maintain consistency and enable comparison. First, reports from 2018–2019, 2020–2021, and 2022–2023 were selected based on predefined corpus criteria. Second, each report was thoroughly read to understand its context. Third, texts were segmented into lexical units, and potential metaphorical expressions related to economic performance, crisis, and policy were identified. Fourth, these expressions were extracted and categorized by period. Although the methodology remained the same throughout, differences appeared in the density and types of metaphorical patterns identified. Pre-pandemic data showed relatively consistent patterns, mainly featuring mechanical and structural metaphors, while the pandemic period displayed greater variability, with biological and warfare metaphors emerging. In the recovery phase, patterns diversified further, including ecological, navigational, and technological metaphors. This demonstrates that, although the collection process was consistent, the metaphorical patterns changed systematically over time.

3.6 Data Analysis

The analysis combines CMT and CMA in a two-stage interpretive process. The first stage is the conceptual mapping (CMT-based analysis), in which metaphorical expressions were grouped into source domains such as mechanical, biological, ecological, navigational, and technological. The connections between these source and target domains were reconstructed to explore how economic concepts are mentally organized, based on Lakoff and Johnson (2003). This stage focuses on identifying consistent cross-domain relationships that shape economic reasoning.

The second stage involves Discursive and Functional Interpretation (CMA-based analysis). After classifying the domain, the metaphors were examined for their discursive roles. This phase explored how metaphor selection shapes perceptions of economic states, constructs notions of stability or vulnerability, justifies policy decisions, and indicates institutional stance at each stage (Charteris-Black, 2004). This combined approach shows how CMT describes the cognitive organization of economic ideas, whereas CMA addresses the persuasive and ideological effects of metaphors in institutional discourse.

3.7 Trustworthiness

Trustworthiness was confirmed based on the qualitative criteria of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Credibility (internal validity) was maintained by systematically using the MIPVU procedure (Steen et al., 2010), engaging in repeated, detailed reading of the corpus (prolonged engagement), and supporting all interpretations with clear textual evidence.

Transferability (external validity) was addressed by providing a detailed description of the corpus, including its size, genre, institutional context, and temporal phases, enabling readers to evaluate the applicability of the findings to similar settings. Dependability (reliability) was ensured through consistent data collection and analysis procedures across all three periods, with iterative coding to confirm the stability of results over time. Confirmability (objectivity) was established by grounding all analytical decisions in textual data and theoretical frameworks, supported by an open audit trail documenting the steps of data selection, coding, and interpretation. Additionally, methodological triangulation was employed by combining Conceptual Metaphor Theory and Critical Metaphor Analysis, thereby strengthening the results' validity and credibility.

3.8 Corpus Composition and Selection Protocol

To ensure authenticity and topical relevance, the corpus comprises six IMF magazine reports from the official IMF website. In this study, CMs denote conceptual metaphors, defined as systematic cross-domain mappings between source and target domains (Lakoff & Johnson, 2003).

To maintain a balanced diachronic overview of conceptual metaphors across periods, two reports were selected from each phase: Pre-pandemic (2018–2019), Pandemic (2020–2021), and Recovery (2022–2024). Each report contains approximately 1,500–2,500 words, yielding a total corpus of 12,000-15,000 words. The reports were selected according to a protocol that requires official IMF magazine reports. They should focus on global economic outlooks, growth forecasts, crisis responses, or recovery strategies. These reports must maintain consistent communication goals across stages, especially in policy-oriented economic analysis. Statistical appendices or purely technical summaries are not appropriate and should be excluded. This protocol maintains genre consistency and enables controlled comparisons of metaphorical framing across similar institutional communication settings (McEnery & Hardie, 2012).

3.9 Analytical Orientation: Hermeneutic Phenomenological Dimension

This research not only conducts corpus analysis but also employs a hermeneutic phenomenological approach to connect linguistic identification with social interpretation. Hermeneutic phenomenology aims to understand meaning within its specific context (Paltridge,

2012), enabling a detailed exploration of the "lived experience" of the global economy as depicted in IMF reports. This interpretive approach supports the second stage of Critical Metaphor Analysis (CMA), emphasizing the discursive function of metaphor in institutional communication (Charteris-Black, 2004).

The analytical process adhered to the following phenomenological stages, adapted for metaphor research:

1. Identifying the Phenomenon: The phenomenon under investigation is the institutional perception of the global economic crisis and recovery (2018–2023). The analysis takes into account the historical and cultural context, including global economic influences on discourse.

2. Bracketing (Epochê): The researcher set aside previous economic assumptions to examine how the IMF constructs economic reality. Importantly, this approach does not shift the focus to economic evaluation but instead enriches the interpretation of metaphorical meaning within the specific context.

3. Data Immersion: The researcher conducted multiple readings of the digital reports to understand the overall narrative of each period. This process included analyzing the textual context and the role of metaphors within their particular co-text and discourse framework.

4. Using the MIPVU protocol (Steen et al., 2010), the researcher identified "significant statements"—metaphorical expressions that specifically relate to the institution's experience of the global shift.

5. Developing Themes and Meanings: These expressions were examined by identifying recurring lexical groups and collocations. They were subsequently grouped into Conceptual Domains (such as Medical, Warfare, Ecological) through conceptual mapping, which connects linguistic expressions to broader conceptual frameworks.

6. Synthesizing into "Essence": The last step was creating a combined description of the "Essential Structure" of the discourse. This details what the IMF encountered (for instance, "Economic Scarring") and their experience of it (such as through a biological survival framework), ultimately exposing the diachronic change in the institutional worldview.

3.10 Linguistic Context and Use of Excerpts

Because the research focuses on language, metaphorical expressions are examined within their specific textual contexts. Each metaphorical word is presented with its surrounding context to determine its meaning before interpretation. According to the MIPVU method (Steen et al., 2010), metaphor identification begins by analyzing the contextual meaning and then comparing it to the more basic meaning. As a result, excerpts serve as the primary units of linguistic analysis. The analysis emphasizes the following points: source–target domain mappings, recurrent lexical patterns, domain clustering, and shifts in metaphor salience across phases.

3.11 Metaphor Identification Protocol

Metaphor identification utilized the Metaphor Identification Procedure Vrije Universiteit (MIPVU), created by Steen et al. (2010). This structured, reproducible protocol helps detect metaphorical language in discourse through five consecutive steps (Steen et al., 2010). First, the entire report was read to understand the context comprehensively. Then, the text was segmented into lexical units. For each unit, its meaning was determined based on its usage in the excerpt. Dictionary definitions were used to find the core meaning. A lexical unit was marked as metaphorical if a contrast was identified between its contextual and basic meanings, and if its contextual meaning could be explained by comparison with its basic meaning. This method ensures clarity and minimizes personal bias in metaphor detection (Steen et al., 2010).

After identification, metaphorically used lexical units were grouped into broader conceptual metaphors in line with Conceptual Metaphor Theory (Lakoff & Johnson, 2003). These lexical realizations were classified into source domains such as ECONOMY IS A BODY, ECONOMY IS A MACHINE, and ECONOMY IS AN ECOSYSTEM, based on consistent source–target relationships rather than on individual expressions. The domain classification was established through repeated lexical grouping and shared conceptual meanings.

3.12 Contextual and Interpretive Orientation

While the study relies on a corpus, its interpretation is guided by a contextual hermeneutic approach within discourse analysis (Paltridge, 2012). This includes examining the historical and cultural context, as well as global economic developments that influence discourse. It also involves analyzing textual context, such as co-text and discourse structure, in relation to the use of metaphor; observing recurring linguistic patterns; and applying conceptual mapping principles (CMT). This interpretive dimension facilitates discursive analysis while avoiding a turn toward phenomenological investigation. The main analytical emphasis remains on linguistic construction and how concepts are structured.

3.13 Diachronic Comparison

A cross-phase comparative analysis was conducted using the same identification and classification criteria across all reports. This uniform approach ensures reliable comparisons of metaphor domain prominence and framing patterns across the three periods. By analyzing shifts in vocabulary and key themes, the study highlights the evolving nature of conceptual metaphors in institutional economic discourse amid major global upheaval.

3.14 Credibility and Dependability

Credibility relates to the internal validity and reliability of qualitative results (Lincoln & Guba, 1985). To ensure credibility, this study

employed multiple procedures. First, metaphor identification strictly followed the Metaphor Identification Procedure Vrije Universiteit (MIPVU) (Steen et al., 2010). This structured, transparent protocol minimized subjective judgment when distinguishing between contextual and basic meanings, reducing bias. Second, all metaphor interpretations were supported by clear textual excerpts. By establishing the contextual meaning prior to classification, the study ensured that metaphor labels were grounded in linguistic evidence rather than assumptions. Third, the classification of metaphor domains was guided by established frameworks such as Conceptual Metaphor Theory (Lakoff & Johnson, 2003) and Critical Metaphor Analysis (Charteris-Black, 2004). Comparing these classifications with domain systems used in economic metaphor research (Cardini, 2014; Talafha, 2023) further validated the domain groupings. Collectively, these procedures ensured that metaphor identification and domain classification were methodologically sound, linguistically justified, and transparently conducted.

Dependability concerns the stability and consistency of research procedures over time (Lincoln & Guba, 1985). To enhance dependability, all data were coded twice at different stages of analysis. The second coding occurred after a time gap to minimize recall bias. Any mismatches between coding rounds were resolved through iterative comparisons and cross-checks guided by MIPVU criteria and domain definitions. Additionally, consistent coding standards were applied across three diachronic phases (2018–2019, 2020–2021, and 2022–2024). Using the same identification and classification methods across periods ensured comparability and methodological stability. These steps helped the study maintain systematic, transparent, and reproducible procedures for metaphor identification and interpretation.

4. Findings

This section outlines the results of the diachronic corpus analysis, arranged chronologically across three phases: Pre-pandemic (2018–2019), Pandemic (2020–2021), and Recovery (2022–2023). To explore the evolution of institutional framing, the analysis employs a rigorous linguistic approach. Using Richards' (1936) framework, metaphorical expressions are broken down into their tenor (the economic subject) and vehicle (the figurative object), to identify the underlying relationship that conveys meaning between them. Additionally, the metaphors are categorized by conceptual type—structural, orientational, or ontological (Lakoff & Johnson, 1980)—to understand how the IMF perceives and shapes economic reality. By tracking the transition from literal words to economic interpretations, this analysis shows how metaphorical language serves as a strategic tool for institutional communication during both stable periods and crises.

4.1 Phase 1 (2018–2019): Pre-Pandemic Conceptual Domains

The analysis of lexical evidence from the 2018–2019 corpus highlights six main conceptual domains where metaphorical realizations are frequent: Mechanical, Structural, Navigational, Biological, Warfare, and Ecological. In this phase, Mechanical and Structural metaphors were most salient. Across the annotated periods, each domain's frequency and salience changed significantly, as shown in Table 2 below.

Table 2. Phase 1 (2018 – 2019): Pre-Pandemic Growth and Global Reform

Representative expression	Conceptual domain	Literal meaning	Interpretive function
Engines of growth	Mechanical	Power units that drive motion	Economy framed as a machine propelled by investment and trade
Fueling global momentum	Mechanical	Adding fuel to keep a system running	Policy measures imagined as energy inputs sustaining expansion
Reignite productivity	Fire/mechanical	Restart a flame for engine	Suggest deliberate reactivation of economic output
Headwinds of trade	Navigational	Winds opposing movement	Obstacles slowing global integration
Solid foundations for inclusive growth	structural	Stable base of a building	Structural reforms ensuring stability and fairness
Drivers of innovation	mechanical	Agents providing propulsion	Human capital and technology as economic catalyst
Tightening screws on dept	mechanical	Adjusting a mechanism	Policy control over fiscal imbalance

Furthermore, analysis of the 2018–2019 corpus shows that the IMF discourse is predominantly shaped by the Structural domain of Mechanics and Architecture. As shown in Table 3, the Tenor (economy) is mapped onto Vehicles such as "engines," "foundations," and "levers."

Table 3. Phase 1: Linguistic and Conceptual Mapping (Pre-Pandemic)

Document Section	Lexical Unit (Metaphor)	Tenor (subject)	Vehicle (Object)	Grounded (Relationship)	Conceptual Type
Global Outlook	"The engines of growth"	Economic Drivers	Internal combustion Engine	Dependency on power/fuel for movement	Structural
Policy Reform	"Solid foundations"	Institutional Framework	Architecture/ Building	Requirement for stability and load-bearing	Ontological
Market Analysis	"Policy levers"	Regulatory Actions	Mechanical Control	Manual precision and direct intervention	Structural

The IMF's language requires careful understanding of both its literal meaning and its broader socio-economic implications. While the literal terms relate to engineering and construction, their economic use promotes a technocratic and optimistic view. Metaphors like 'engines' and 'levers' depict the economy as a predictable, machine-like system that can be 'fixed' or 'tuned' with expert policies. This rhetoric presents the

economy as an engineered system that needs precise 'tuning' and a 'solid foundation' established through structural reforms.

4.1.1 Lexical Evidence and Thematic Clustering

Metaphor identification using MIPVU revealed the following common lexical items: “engines of growth”, “fueling global momentum”, “reignite productivity”, “drivers of innovation”, “tightening screws on debt”, “headwinds of trade”, and “solid foundations for inclusive growth”. These expressions were grouped into thematic clusters before interpretation, and this thematic grouping marks the initial hermeneutic stage, focusing on observing lexical patterns prior to any theoretical abstraction:

Table 4. Thematic clusters

Theme	Recurring Vehicles
Economy as Mechanism	engine, driver, screw
Policy as Energy Input	Fuel
Recovery as Reactivation	Reignite
Trade as Navigation	Headwinds
Reform as Construction	Foundation

4.1.2 Topic–Vehicle–Ground Analysis

Applying Richards’ (1936) framework—which includes the Tenor (the economic subject), the Vehicle (the metaphorical concept), and the Ground (the shared attribute)—shows that these metaphors serve more than decorative purposes; they depict a consistent structural mapping. For example, in 'Engines of Growth,' the Tenor (economic growth) is animated by the Vehicle (an engine), with the Ground acting as an internal mechanism that drives autonomous progress. This repeated use of mechanical metaphors points to a view of the economy as a self-contained, functional system. By analyzing these components, it becomes clear how a technocratic mindset is woven into the discourse, turning abstract economic ideas into concrete, controllable machinery.

4.1.3 Conceptual Metaphor Types

According to Conceptual Metaphor Theory, metaphors are classified into three main types. Structural Metaphors frame one complex concept in terms of another, such as ECONOMY IS A MACHINE, with components like engines and screws. Ontological Metaphors treat abstract ideas as concrete entities, for example, POLICY IS FUEL. Additionally, Orientational Metaphors organize meaning spatially or directionally, as illustrated by TRADE OBSTACLES ARE HEADWINDS. Mechanical metaphors depict the economy as a controllable, engineered system, emphasizing structure. Navigational metaphors, by contrast, highlight direction, constraints, and resistance. Structural metaphors emphasize stability and architectural durability, underscoring the enduring aspects of design.

4.1.4 Linguistic Patterns and Discursive Meaning

Linguistic analysis identified several patterns: frequent technical-mechanical vocabulary; activation verbs such as reignite, drive, and fuel; lexical collocations indicating control and calibration; and an absence of crisis metaphors in this phase. The metaphorical system depicts the economy as technically manageable, mechanically adjustable, structurally stable, and reform-oriented.

4.1.5 Summary of Findings (Phase 1)

Before the pandemic, discourse was largely characterized by Structural and Mechanical metaphors. These metaphors portray the economy as a controllable, engineered system amenable to reform and optimization. This addresses RQ1 by showing that IMF discourse in 2018–2019 is primarily shaped by the MACHINE and CONSTRUCTION source domains.

4.2 Diachronic Shifts During the Crisis

In response to the global shock, the dominant domains shift from "Mechanics" to Biology (Medicine) and Warfare. As shown in Table 5, the linguistic framing shifts from "adjusting levers" to "fighting crises" and "injecting stimulus."

4.2.1 Phase 2 (2020–2021): The Pandemic Crisis

During the pandemic, linguistic patterns shifted dramatically toward the Biological and Warfare domains. This reflects a transition from "managing" a machine to "rescuing" a living entity under threat.

Table 5. Phase 2: Linguistic and Conceptual Mapping (Pandemic)

Document Section	Lexical Unit (Metaphor)	Tenor (subject)	Vehicle (Object)	Grounded (Relationship)	Conceptual Type
Impact Analysis	“Economic scars”	Post-crisis Damage	Dermal Injury	Lasting marks left after a physical trauma	Ontological
Medical Support	“Injecting stimulus”	Fiscal Policy	Clinical Syringe	Rapid introduction of vital fluids to a body	Structural
Global Response	“Fighting the crisis”	Economic Strategy	Military Combat	Use of force to repel an aggressive enemy	Structural

The IMF’s rhetorical strategy shifts significantly as it moves from mechanical metaphors to biological and conflict-based ones. Although the terminology literally refers to bodily harm, clinical intervention, and armed combat, the intended economic perspective recasts the crisis as a matter of "survival" rather than mere "management." By framing the economy as a "vulnerable, living patient" rather than a predictable machine, the discourse justifies a departure from routine policy in favor of extraordinary "emergency and rescue" measures. Within this

framework, the economy is depicted as a "vulnerable body" susceptible to permanent "scarring," a conceptual shift that legitimizes massive "injections" of aid as vital survival interventions rather than standard fiscal adjustments.

Furthermore, the 2020–2021 corpus shows a marked shift in metaphorical structures compared with the pre-pandemic period. MIPVU analysis indicates a significant increase in the prominence of the Biological, Medical, Warfare, and Constraint domains, while the dominance of Mechanical metaphors declines. However, the global economy is described in the IMF's 2018–2019 wording as a machine or designed system that requires planned policy "fuel" to stay in motion. Propulsion, control, and mechanical precision are the most common metaphors. The focus on "foundations" and "drivers" signals technocratic management and institutional confidence, portraying the economy as sustainable rather than vulnerable. Table 6 below expands the domains as follows:

Table 6. Phase 2 (2020 – 2021): Pandemic Shock and Stabilization

Representative Expression	Conceptual Domain	Literal Meaning	Interpretive Function
The great lockdown	Physical/constraint	Forced closure	The world economy is immobilized by containment measures
Waves of infection and recession	Biological/natural	Successive water waves	Recurrent crises spreading globally
Injecting stimulus into economy	Medical	Administering medicine	Fiscal and monetary interventions as healing acts
Economic scars and healing process	Biological	Bodily injury and recovery	Long-term structural damage requiring time to mend
Building immunity to future shocks	Biological/defensive	The body's resistance	Strengthening resilience mechanisms
Fighting the virus and economic collapse	Warfare	Combat against an enemy	Collective struggle demanding coordination and sacrifice
Restart the global engine	Mechanical/ revival	Restarting a machine	Transition from paralysis to renewed activity

4.2.2 Lexical Evidence and Thematic Clustering

The following metaphorical lexical units were repeatedly identified: "The Great Lockdown," "Waves of infection and recession," "Injecting stimulus into the economy," "Economic scars," "Healing process," "Building immunity to future shocks," "Fighting the virus and economic collapse," and "Restart the global engine." Before interpretation, these units were grouped into themes based on shared vehicles, constituting the hermeneutic-descriptive stage, grounded in lexical evidence:

Table 7. Thematic clusters

Theme	Recurring Vehicles
Economy as Immobilized Body	Lockdown
Crisis as Contagion	waves, infection
Policy as Medical Treatment	Inject
Damage as Injury	scars, healing
Resilience as Immunity	Immunity
Crisis as War	Fight
Recovery as Reactivation	Restart

4.2.3 Topic–Vehicle–Ground Analysis

Richards' (1936) metaphorical model uncovers a systematic way of mapping concepts that goes beyond mere linguistic choices. For example, in the phrase "injecting stimulus into the economy," the Tenor (fiscal and monetary stimulus) is conveyed through the Vehicle (injection), creating a Ground based on external intervention necessary for recovery. This approach reinterprets the ECONOMY as a BODY and POLICY as MEDICAL TREATMENT, viewing economic intervention more as a clinical necessity than a simple choice. Likewise, the metaphor "waves of infection and recession" visualizes the spread of economic decline (Tenor) using the imagery of "waves" (Vehicle). Combining biological imagery with the idea of natural forces, this framing presents recession as an external, systemic threat requiring an urgent defensive response.

4.2.4 Conceptual Metaphor Classification

The dominant conceptual metaphors in Phase 2 include Ontological Metaphors such as ECONOMY IS A BODY, DAMAGE IS INJURY, and POLICY IS MEDICINE. These metaphors treat abstract processes as embodied entities. The Structural Metaphors include CRISIS IS WAR, RESILIENCE IS IMMUNITY, and RECOVERY IS REACTIVATION. Here, one conceptual system structures another. Orientational/Constraint Metaphors treat LOCKDOWN as physical immobilization, introducing spatial constraints and limited movement.

4.2.5 Linguistic Patterns and Discursive Meaning

Compared with Phase 1, the lexical pattern shows more medical terms (inject, immunity, healing, scars), increased use of collective-action verbs (fight), less mechanical optimization language, and more personification of the economy. The economy is now depicted less as a controllable machine and more as a vulnerable body, a patient in need of intervention, or a combat zone requiring coordination. These insights are based on lexical mapping patterns rather than macroeconomic analysis.

4.2.6 Summary of Findings (Phase 2)

Phase 2 clearly shifts the conceptual focus from the MACHINE and WAR source domains to the BODY domain. The discourse is dominated

by biological and war metaphors that reframe the crisis as a contagion, an injury, and a collective struggle. Mechanical imagery appears mainly in transitional contexts, such as “restart the global engine,” signaling a move toward post-crisis recovery. This supports RQ2 by showing a shift in metaphor prominence during the pandemic period.

4.3 Framing Recovery and Technology

During 2022–2023, the discourse includes both Navigational and Ecological domains. As seen in Table 8, recovery is described using terms like "green shoots" and "navigating uncharted waters," while technology, specifically AI, is presented as a "new engine."

4.3.1 Phase 3 (2022–2023): Recovery and Transformation

In the final stage, the focus shifts to Navigational and Ecological areas, emphasizing resilience and adaptation in an unpredictable setting.

Table 8. Phase 3: Linguistic and Conceptual Mapping (Recovery)

Document Section	Lexical Unit (Metaphor)	Tenor (subject)	Vehicle (Object)	Grounded (Relationship)	Conceptual Type
Future Outlook	“Navigating uncertainty”	Economic Planning	Maritime Sailing	Steering a vessel through unknown waters	Structural
Growth Signs	“Green shoots”	Initial Recovery	New Plant Growth	Signs of life following a dormant period	Ontological
Tech Integration	“AI as the new engine”	Technology	Machine Component	Re- introducing power through modern sources	Structural

The final stage of this rhetorical development requires a careful distinction between literal and intended meanings. Although the vocabulary explicitly mentions sailing, gardening, and technology, the underlying economic message emphasizes cautious adaptation and strategic resilience. Here, the economy is no longer seen as a fully controllable machine but as a 'vessel' that needs skilled 'steering' through unavoidable external 'storms.' This perspective suggests that recovery should be regarded as an organic process that must be 'nurtured' rather than solely engineered. The introduction of Artificial Intelligence as a new ‘engine’ act as a key rhetorical link; it symbolizes a 'technological transformation' that restores a sense of mechanical power and agency to an economy once characterized as 'scarred' and vulnerable.

In addition, the 2022–2023 corpus reveals a hybrid metaphor system that integrates the Navigational, Ecological, Structural, and Technological domains. In contrast to Phase 2, which portrayed the economy as a delicate entity, Phase 3 depicts it as an adaptive, interconnected, and strategically governed system.

Table 9. Phase 3 (2022 – 2023): Recovery, Uncertainty, and Technological Transformation

Representative expression	Conceptual Domain	Literal meaning	Interpretive function
Weathering a perfect storm	Navigational / Meteorological	Surviving violent weather	Enduring multiple simultaneous crises (war, inflation, climate)
Navigating uncharted waters	Navigational	Steering a ship without a map	Managing policy and uncertainty
A fragile recovery	Physical/object	Easily breakable item	Recovery that can be reversed
Building resilience	Structural/ biological	Constructing strength	Creating adaptive systems and safety nets
Green shoots of growth	Ecological/ biological	Young plants sprouting	Early signs of economic rebound
Economic ecosystem	Ecological	Independent living environment	Emphasizes connectivity and sustainability
AI as a new engine of productivity	Technological/ Mechanical	Machine component that provides power	Artificial intelligence as the next driver of growth
Harnessing a technology of transformation	Tool/ Animal	Using reins to control power	Human agency guiding technological change

As shown in Table 5, by 2022–2023, the focus shifted toward a blend of ecology, technology, and navigation as key areas. According to IMF reports, economies are like ships facing 'storms' on their journey to recovery or like ecosystems that require sustainability and balance. The reemergence of the 'engines of growth,' now influenced by 'AI' or 'digital' technologies, suggests a revival of mechanical imagery from a futuristic angle. Moving from emergency response to long-term adaptation is depicted through metaphors of harnessing, building, and transformation. Overall, this phase shifts the economy from a patient in need of treatment to a powerful, active system.

4.3.2 Lexical Evidence and Thematic Clustering

The identification process based on MIPVU revealed several recurring metaphorical expressions: Phrases like “Weathering a perfect storm,” “Navigating uncharted waters,” “A fragile recovery,” “Building resilience,” “Green shoots of growth,” “Economic ecosystem,” “AI as a new engine of productivity,” and “Harnessing technology of transformation” exemplify the hermeneutic descriptive phase grounded in lexical evidence. These expressions were organized into thematic clusters prior to interpretation.

Table 10. Theme Recurring Vehicles

Theme	Recurring Vehicles
Crisis as Environmental Turbulence	Storm
Governance as Navigation	uncharted waters
Recovery as Vulnerable Object	Fragile

Adaptation as Construction	Building
Growth as Organic Regeneration	green shoots
Economy as Ecosystem	Ecosystem
Technology as Mechanical Power	Engine
Transformation as Directed Force	Harness

4.3.3 Topic–Vehicle–Ground Analysis

Using Richards' (1936) framework, the analysis shows how the IMF employs conceptual blending to connect different areas of experience. For example, the metaphor 'green shoots of growth' highlights the Tenor as economic recovery and the Vehicle as 'green shoots,' forming a Ground that symbolizes early-stage natural regeneration. This farming imagery suggests that recovery is a delicate, natural process that requires patience. By contrast, the phrase 'AI as a new engine of productivity' shifts the focus to a mechanical view: here, the Tenor (Artificial Intelligence) corresponds to the Vehicle (engine), with the Ground representing an internal source of power that propels progress. Together, these examples reveal a refined rhetorical approach in which mechanical imagery is recontextualized within a modern technological frame, creating a narrative that blends organic vulnerability with technocratic strength.

4.3.4 Conceptual Metaphor Classification

The main types of metaphors include: Structural Metaphors, such as ECONOMY IS A SHIP, ECONOMY IS AN ECOSYSTEM, and TECHNOLOGY IS AN ENGINE, which organize abstract economic processes through consistent source systems. Ontological Metaphors, such as RECOVERY IS A FRAGILE OBJECT and TRANSFORMATION IS A FORCE TO BE HARNESSED, conceptualize abstract processes as controllable entities. Orientational Metaphors, including NAVIGATION THROUGH UNCERTAINTY, employ spatial directionality to shape policy discourse.

4.3.5 Linguistic Patterns and Discursive Meaning

Compared with Phases 1 and 2, Phase 3 shows the re-emergence of the mechanical lexicon (engine) in technological contexts and increased use of ecological terminology (ecosystem, green shoots). It also features a strong presence of navigational verbs (navigate, weather) and a shift from emergency medical vocabulary to adaptive and strategic language. In addition, the economy is linguistically reframed as a ship navigating instability, an ecosystem requiring balance, a system strengthened through resilience-building, and a technologically powered structure. This signals a shift from the patient (Phase 2) to an adaptive, agentive system (Phase 3).

4.3.6 Summary of Findings (Phase 3)

Phase 3 presents a multi-domain metaphor system integrating navigation, ecology, and technology. Mechanical imagery reappears but is reinterpreted through a technological lens ("AI as engine"), signaling conceptual renewal rather than mere repetition. This addresses RQ3 by showing how recovery discourse shifts toward metaphors of long-term adaptation and transformation.

4.4 Synthesis: Discourse, Conditions, and Policy Actions

The evolution of metaphor domains indicates a core shift in the IMF's institutional perspective. As it transitions from Mechanical (Controllable) to Biological (Vulnerable) and then to Navigational (Adaptive), the discourse mirrors a shift in how economic conditions are portrayed. Initially, conditions are seen as stable, then traumatized, and ultimately uncertain. In terms of policy actions, metaphors evolve from "routine maintenance" (levers) to "emergency surgery" (injections) and finally to "strategic steering" (navigation). This pattern shows how the IMF employs metaphorical shifts to justify its evolving policy strategies linguistically. The accompanying table summarizes insights from lexical and hermeneutic analyses across these three phases.

4.4.1 Cross-Phase Dynamicity of IMF Metaphorical Framing (2018–2023)

Table 10. Cross-Phase Dynamicity

Period	Dominant metaphor domains	Discursive focus	Conceptual Framing of the Economy
2018-2019	Mechanical/ structural	Growth, inclusion, control	Economy as engineered system
2020-2021	Biological/ warfare	Crisis, healing, protection	Economy as living body under attack
2022-2023	Navigational/ ecological/ technological	Adaptation, resilience, innovation	Economy as system steering through change

4.4.2 Lexical Patterns Across Phases

This comparative analysis shows a notable change in how the IMF uses language, moving from a focus on mechanical control to highlighting biological vulnerability, and ultimately to emphasizing strategic adaptation.

Phase 1 (2018–2019): The Economy as a Managed Machine

Throughout this period, the language is heavily focused on Mechanical and Structural Vocabulary. Common phrases like "engine of growth," "policy levers," and "calibrating measures" create a conceptual framework where the Global Economy (Tenor) is seen as a Machine or Engine (Vehicle). This metaphor is based on principles of controlled design and technical predictability. As a result, abstract economic processes are understood through engineering perspectives, portraying the economy as a system that can be engineered and optimized with expert technical input.

Phase 2 (2020–2021): The Economy as a Vulnerable Organism

With the emergence of the global pandemic, the vocabulary has shifted toward Biological and Warfare-related language. Phrases such as "healing the economy," "fiscal lifeline," and "fighting the crisis" transform the concept of the Global Economy (Tenor) into a Body or Patient (Vehicle). The Ground imagery shifts to themes of vulnerability, injury, and the urgent need for protection. This period introduces a dual structural mapping: CRISIS IS WAR and POLICY IS DEFENSE. Unlike the stable imagery of Phase 1, Phase 2 portrays the economy as a living entity facing an existential threat, justifying the use of extraordinary "survival" measures over normal management.

Phase 3 (2022–2023): The Economy as a Navigational Ecosystem

The current phase demonstrates an advanced blending of Navigational, Ecological, and Technological Vocabulary. Using phrases like "weathering the storm," "green shoots," and "AI engine," the discourse constructs a complex conceptual framework:

• ECONOMY IS A SHIP: Emphasizes the need to navigate external uncertainty (structural).

• ECONOMY IS AN ECOSYSTEM: Highlights interdependence and organic growth (structural).

• RECOVERY IS A FRAGILE OBJECT: Portrays growth as "green shoots" requiring care (ontological).

• PROGRESS IS FORWARD MOVEMENT: Reintroduces agency through "AI engines" (orientational).

Ultimately, the lexical field has shifted from the predictability of Phase 1 and the survival focus of Phase 2 to a modern emphasis on strategic adaptation and managed technological change.

4.4.3 Conceptual Shifts Across Phases

The metaphorical trajectory observed in the data demonstrates a progressive re-conceptualization of the global economy, moving through three distinct ontological states:

Phase 1 to Phase 2: From Control to Vulnerability

The transition from Phase 1 to Phase 2 marks a fundamental shift from technical rationality to existential fragility. The initial mechanical metaphors characterize the economy as a predictable, engineered system under firm institutional control. However, the onset of the global crisis prompts a shift toward biological metaphors, redefining the economy as a "wounded organism." This transition effectively moves the discourse from a paradigm of "calibration and optimization" to one of "dependency and emergency intervention," where the primary objective shifts from efficiency to clinical survival.

Phase 2 to Phase 3: From Survival to Adaptation

The progression from Phase 2 to Phase 3 reflects an evolution from reactive defense to proactive resilience. While Phase 2 metaphors prioritize "treatment" and "shielding" a vulnerable patient, Phase 3 introduces imagery of navigation and ecology. In this final stage, the economy is no longer a passive subject needing rescue; it is conceptually transformed into a "vessel" or "ecosystem" capable of steering through uncertainty and self-regeneration. By integrating technological metaphors like the "AI engine" with organic "green shoots," the discourse balances the need for nurtured growth with the reintroduction of innovative power, signaling a shift from mere survival to strategic adaptation.

4.4.4 Hermeneutic and Critical Interpretation

The diachronic evolution of metaphorical framing reflects changing global realities and institutional positioning.

1. Humanization and Re-Systemization

Phase 2 brings human vulnerability into economic discussions. Phase 3 reorganizes the economy, not through mechanical means, but by incorporating ecological and technological dependencies. This progression can be summarized as: Technical Control → Biological Survival → Adaptive Co-existence.

2. Institutional Authority and Legitimacy

Each metaphorical shift serves a legitimizing function: Mechanical framing legitimizes technocratic expertise, biological framing legitimizes emergency intervention, and Navigational/ecological framing legitimizes long-term strategic governance and innovation policy. Metaphors, therefore, do not merely describe economic conditions; they define what the economy is and, consequently, which type of intervention appears rational and necessary.

3. Conceptual Plasticity and Rhetorical Flexibility

Over six years of IMF communication, the use of metaphors shows notable flexibility: stability times tend to use mechanical metaphors, crisis periods favor biological and warfare metaphors, and post-crisis restructuring leans towards ecological and technological metaphors. This pattern underscores how metaphors serve as cognitive and rhetorical tools that connect institutional language with evolving global goals.

4.4.5 Integrated Cross-Phase Conclusion

The cross-phase analysis shows that IMF discourse develops systematically rather than randomly. The main ideas about the economy across the three phases can be summarized as: ECONOMY IS A MACHINE (before the crisis, focusing on stability), ECONOMY IS A BODY UNDER ATTACK (during the pandemic crisis), and ECONOMY IS AN ADAPTIVE SYSTEM (after the crisis, emphasizing

transformation). The gradual shift from engineering logic to biological survival and ultimately to ecological-technological adaptation indicates a discursive shift in response to global disruptions.

Ultimately, metaphor functions more as a cognitive framework than as mere decorative language, shaping economic reasoning, institutional authority, and policy vision. The IMF's shifts in metaphor reveal how economic discourse evolves linguistically to remain relevant, legitimate, and aligned with strategic aims amid changing historical circumstances.

5. Discussion

5.1 Summary of Main Findings

The results demonstrate that metaphorical framing in IMF discourse is adaptable, changing alongside global economic circumstances. It transitions from technocratic control to crisis management and ultimately to adaptive transformation. Additionally, this study examined the development of metaphorical framing in IMF discourse from 2018 to 2023. Using lexical and hermeneutic analysis based on Conceptual Metaphor Theory (CMT), the research revealed a clear three-stage evolution in the way the global economy is conceptualized.

Phase 1 (2018–2019): Mechanical/Structural Framing

The economy was mainly described as an Engineered System. This phase focused on technocratic control, technical rationality, and institutional optimization, with policymakers functioning as "engineers" tuning a predictable machine.

Phase 2 (2020–2021): Biological/Warfare Framing

When the pandemic began, the discussion turned to viewing the Economy as a Living Body Under Attack. This biological analogy depicted the economy as a fragile "patient," warranting extraordinary emergency measures, "lifelines," and defenses against external "shocks."

Phase 3 (2022–2023): Navigational/Ecological/Technological Framing

The latest phase presents the Economy as an Adaptive System. Using maritime imagery ("steering"), agricultural symbols ("green shoots"), and tech metaphors ("AI engines"), the IMF illustrates a scene characterized by interdependence and resilient change rather than simple survival. The study shows that metaphorical framing in IMF discussions is inherently adaptable and responsive. It develops alongside global economic shifts, moving from a model of technocratic dominance to one focused on crisis management, and finally toward a concept of adaptive transformation. This flexibility indicates that metaphors serve not just stylistic purposes but are practical tools that help legitimize changing policy directions amid an increasingly unpredictable global landscape.

5.2 Metaphor as a Cognitive Framing Tool

The findings reinforce Lakoff and Johnson's (2003) claim that metaphors go beyond mere decoration; they are fundamental cognitive structures shaping how we perceive reality. During the three phases, metaphor functions as a framework for understanding economic concepts and guiding subsequent actions.

In Phase 1, mechanical metaphors like "engine of growth," "policy levers," and "fueling momentum" depict the economy as a controllable system, with policymakers seen as engineers capable of adjusting and optimizing it. During Phase 2, biological metaphors such as "healing the economy," "economic shock," and "fiscal lifeline" portray the economy as vulnerable and living, emphasizing fragility and the necessity for intervention. In Phase 3, ecological and technological metaphors—like "economic ecosystem," "weathering the storm," and "AI as an engine of productivity"—reframe the economy as adaptive, interconnected, and propelled by innovation. This progression illustrates how metaphors shape economic understanding and influence interpretive frameworks.

5.3 Context-Dependent Metaphorical Flexibility

The findings corroborate Gibbs (2023), who argues that metaphors are context-dependent and evolve with sociohistorical shifts. The IMF's metaphorical development mirrors global events: before the pandemic, stability was framed by engineering logic; during the pandemic, survival and medical imagery became prominent; and after the pandemic, the focus shifted to adaptation and sustainability.

Similarly, earlier studies (Skorczynska & Deignan, 2006; Jacobetty & Orton-Johnson, 2023) highlight how crises and audience expectations shape metaphorical choices in economic language. This research builds on that work by introducing a diachronic perspective, showing that metaphorical framing not only responds to crises but also evolves across phases of disruption and recovery. The transition from mechanical control to biological survival and then to ecological-technological adaptation reveals layered metaphorical meanings rather than a simple replacement. Each stage reinterprets earlier imagery while focusing on new communication goals.

5.4 Dynamic Recontextualization of Meaning

The observed metaphorical evolution aligns with Cardini's (2014) view that metaphors are flexible structures that reshape meaning over time. For example, the "engine" metaphor in Phase 1 symbolized stability and growth. By Phase 3, the same "engine" reappears, now linked to AI and digital transformation, signaling innovation rather than mere stabilization. Thus, metaphors are reused but acquire new interpretations in different contexts.

Furthermore, the extensive use of health and resilience metaphors aligns with the findings of Mao et al. (2023). They indicate that embodied experiences of vulnerability and recovery serve as common cultural cognitive tools. The pandemic has strengthened the rhetorical force of biological metaphors and made them more personally meaningful.

5.5 Discursive and Institutional Implications

Over more than six years of IMF communication, the use of metaphors demonstrates significant rhetorical flexibility. Each metaphorical framework serves a distinct institutional role: Mechanical metaphors emphasize technocratic expertise; biological metaphors highlight emergency intervention and protection; and navigational and ecological metaphors advocate strategic governance, resilience, and sustainable innovation.

Metaphors significantly shape public perception by framing how we understand the economy. For example, viewing the economy as a machine suggests it needs calibration; as a body, it requires healing; and as an ecosystem or vessel, it calls for stewardship and adaptation. These metaphors shape which policy actions are deemed rational, urgent, or necessary. Consequently, economic metaphors serve as both explanatory and persuasive tools, reinforcing institutional authority during uncertain times.

5.6 Limitations of the Study

Despite its contributions, this study has some limitations. Firstly, the analysis focuses solely on IMF discourse. Including comparative research with other institutions, such as the World Bank, the OECD, or national central banks, could improve the applicability of the results. Secondly, while the study is based on a corpus, it does not differentiate between genres such as press releases, reports, and speeches. A genre-specific analysis might reveal more detailed insights. Thirdly, although lexical evidence and Conceptual Metaphor Theory are used, interpreting metaphors inherently involves the researcher's judgment. Lastly, future research could employ quantitative approaches, such as MIPVU, for validation. Currently, the study examines production (IMF discourse) but not how audiences interpret or react to these metaphorical framings.

5.7 Implications for Research and Practice

This research advances cognitive linguistics by providing diachronic evidence that institutional metaphors change systematically as sociohistorical contexts shift. This supports the idea that metaphor is a flexible cognitive structure rather than a fixed rhetorical tool. It also contributes to economic discourse studies by showing that metaphor is a strategic tool in global governance, shaping how economic realities and policies are linguistically constructed and justified. In practice, the results indicate that greater awareness of metaphorical framing in policy communication can improve clarity, transparency, and public trust, especially during crises and periods of change, when interpretive stability is vital. The recent rise of ecological and technological metaphors suggests a potential shift toward sustainability and digitalization as key conceptual themes. Further long-term research beyond 2023 is needed to determine whether this evolving metaphor pattern will become a stable, lasting discourse.

5.8 Concluding Reflection

Over the six-year period from 2018 to 2023, IMF economic discourse shows a clear metaphorical evolution aligned with global patterns of disruption. The results show that metaphor goes beyond decorative language; it functions as a cognitive tool that shapes institutional reasoning, public perception, and policy authority. The shift from engineered stability to biological survival, and then to adaptive transformation, highlights how metaphor serves as a dynamic link between economic events and their meanings. Over time, the study reveals that economic discourse is not only reactive to crises but also conceptually reshaped through metaphor to help understand and manage them.

6. Conclusion

This study investigated how metaphorical framing in IMF discourse has evolved from 2018 to 2023, using a corpus-based cognitive-linguistic approach grounded in Conceptual Metaphor Theory. The results show that economic metaphors serve as organized cognitive tools that shape institutional understanding, rather than merely decorating economic language.

Three key metaphorical phases were identified. In 2018–2019, IMF discourse primarily used mechanical and structural metaphors, depicting the economy as an engineered system that can be calibrated and controlled. During the COVID-19 crisis (2020–2021), biological and warfare metaphors became prevalent, portraying the economy as a vulnerable body under attack that needs protection and healing. In the post-pandemic era (2022–2023), navigational, ecological, and technological metaphors emerged, portraying the economy as an adaptive system navigating uncertainty and leveraging innovation. This progression from engineered stability to biological survival and then to adaptive transformation shows that institutional metaphors evolve as global realities shift. Each metaphor supports specific policy interventions and shapes public perception by redefining the nature of the economy.

In addition, this study advances cognitive linguistics by highlighting the dynamic nature of metaphor over time in institutional discourse. It demonstrates how corpus-based lexical analysis, combined with tenor–vehicle mapping, can reveal consistent conceptual shifts across periods. Future research could apply this approach to diverse institutional settings or examine how economic metaphors are translated and reinterpreted across languages. Overall, the findings underscore the central role of metaphor in constructing and communicating economic meaning within global governance.

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Author contributions

Dr. Muneera Jaradat and Dr. Zein Bani Younes were responsible for the study design and revision. Dr. Duaa K Talafha was responsible for

data collection. Dr. Zein drafted and revised the manuscript. All authors read and approved the final manuscript.

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