



UvA-DARE (Digital Academic Repository)

Infrastructural Geopolitics

de Goede, M.; Westermeier, C.

DOI

[10.1093/isq/sqac033](https://doi.org/10.1093/isq/sqac033)

Publication date

2022

Document Version

Final published version

Published in

International Studies Quarterly

License

CC BY-NC-ND

[Link to publication](#)

Citation for published version (APA):

de Goede, M., & Westermeier, C. (2022). Infrastructural Geopolitics. *International Studies Quarterly*, 66(3), [sqac033]. <https://doi.org/10.1093/isq/sqac033>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

Infrastructural Geopolitics

MARIEKE DE GOEDE

University of Amsterdam, The Netherlands

AND

CAROLA WESTERMEIER

*Goethe-University Frankfurt, Germany
Justus-Liebig-University Giessen, Germany*

Invisible and seemingly technical financial infrastructures have become the site of high geopolitics. Crucially, security sanctions are being leveraged through the global financial messaging network SWIFT. This article offers the term “infrastructural geopolitics” to draw attention to the ways in which hegemonic contestation and fracturing play out in and through payment infrastructures. Infrastructures are not passive sites to be used in the service of preexisting hegemonic power but can themselves route, block, challenge, or rework power in particular ways.

We focus on the new trade mechanism INSTEX as a lens on the global battle over financial payment infrastructures. How and why has hegemonic contestation taken the shape of, and is in turn shaped by, struggles over payment infrastructure? As a heuristic device to analyze the hegemonic politics of financial infrastructure, we propose three terms that capture the processual nature of infrastructural politics: sedimentation, resurfacing, and fracturing. We apply these to the emergence of the payment infrastructure INSTEX. We explain how hegemonic politics become hardwired in the technical and largely invisible SWIFT infrastructure, which supported postwar financial order and sedimented its uneven power relations. The process of political resurfacing captures the ways in which infrastructural dispositions come to the surface of political discussion again, after 9/11 and through the JCPOA process. In conclusion, the introduction of INSTEX has advanced the possibility of fracturing international payment routes, with multiple alternative infrastructures emerging.

Las infraestructuras financieras invisibles y aparentemente técnicas se han convertido en el escenario de la alta geopolítica. Este artículo contribuye a los debates sobre las infraestructuras y la hegemonía al poner de manifiesto la agencia política de las propias infraestructuras. Utilizamos el término “geopolítica infraestructural” para llamar la atención sobre las formas en que la contestación y la fractura hegemónicas se desarrollan a través de las infraestructuras y dentro de ellas. Las infraestructuras no son espacios pasivos al servicio del poder hegemónico preexistente, sino que pueden encauzar, bloquear o desafiar al poder.

Nos centramos en el nuevo mecanismo comercial denominado Instrumento de Apoyo a los Intercambios Comerciales (Instrument in Support of Trade Exchanges, INSTEX) como forma de analizar la batalla global sobre las infraestructuras financieras de pago. ¿Cómo y por qué la impugnación hegemónica ha tomado la forma de las luchas por las infraestructuras de pago y, a su vez, está conformada por ellas? Proponemos tres términos que captan la naturaleza procesal de la estabilización, el resurgimiento y la fractura política. Explicamos cómo la política hegemónica se incorporó a la infraestructura técnica y en gran medida invisible de la Sociedad para las Comunicaciones Interbancarias y Financieras Mundiales (Society for Worldwide Interbank Financial Telecommunication, SWIFT), que apoyó el orden financiero de la posguerra y sedimentó sus desiguales relaciones de poder. El resurgimiento político refleja las formas en que las infraestructuras volvieron a salir a la superficie del debate político, a partir del 11-S y a través del proceso del Plan de Acción Integral Conjunto (Joint Comprehensive Plan of Action, JCPOA). Llegamos a la conclusión de que la introducción de INSTEX ha fracturado las vías de pago internacionales, con la aparición de múltiples infraestructuras alternativas.

Les infrastructures financières invisibles semblent techniques sont devenues le site d'une haute géopolitique. Cet article contribue aux débats sur les infrastructures et l'hégémonie en mettant en lumière l'agentivité politique des infrastructures elles-mêmes. Nous proposons le terme de « géopolitique infrastructurale » pour attirer l'attention sur les manières dont la contestation et la fracture hégémoniques agissent dans et par le biais des infrastructures. Les infrastructures ne sont pas des sites passifs à utiliser au service d'un pouvoir hégémonique préexistant, mais elles peuvent acheminer, bloquer ou remettre en question le pouvoir.

Nous nous concentrons sur le nouveau mécanisme commercial INSTEX comme moyen d'analyser la bataille mondiale liée aux infrastructures financières de paiement. Comment et pourquoi la contestation hégémonique a-t-elle pris la forme de luttes liées aux infrastructures de paiement et a-t-elle été façonnée par ces luttes? Nous proposons trois termes qui en capturent la nature processuelle : stabilité politique, résurgence et fracture. Nous expliquons comment la politique hégémonique est devenue profondément ancrée dans l'infrastructure technique et en grande partie invisible du système SWIFT, qui a soutenu l'ordre financier de l'après-guerre et sédimenté ses relations de pouvoir inégales. La résurgence politique capture les manières

Marieke de Goede is a Professor of the Politics of Security Cultures at the University of Amsterdam and Dean of the Faculty of Humanities. She has published widely on counterterrorism and security practices in Europe, with a specific attention to the role of financial data, including *Secrecy and Methods in Security Research* (co-editor) and “The Politics of the List” in *Environment and Planning D: Society and Space* (co-editor). She held a Consolidator Grant of the European Research Council (ERC) with the theme: FOLLOW: Following the Money from Transaction to Trial (www.projectfollow.org).

Carola Westermeier is Visiting Professor of International Relations and International Political Economy at Goethe-University Frankfurt and co-leader of a research project on Financial Infrastructures and Geoeconomic Security at the University of Giessen. Before, she was a postdoctoral researcher at the FOLLOW project, supported by a Consolidator Grant of the European Research Council (ERC). Her research is based on the intersections of (critical) security studies, international political economy, and political sociology. Her empirical focus lies on financial security and the politics of (data) infrastructures.

de Goede, Marieke, and Carola Westermeier. (2022) Infrastructural Geopolitics. *International Studies Quarterly*, <https://doi.org/10.1093/isq/sqac033>

© The Author(s) (2022). Published by Oxford University Press on behalf of the International Studies Association. This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs licence (<https://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial reproduction and distribution of the work, in any medium, provided the original work is not altered or transformed in any way, and that the work is properly cited. For commercial re-use, please contact journals.permissions@oup.com

dont les infrastructures ont refait surface dans les discussions politiques après le 11 septembre et dans le cadre du processus de l'Accord de Vienne sur le nucléaire iranien. Nous concluons que l'introduction d'INSTEX et d'autres infrastructures alternatives qui ont émergé a fracturé les voies de paiement internationales.

Introduction: “Secure, Efficient, European”

In 2020, at the height of the COVID-19 crisis in Iran and Europe, the German foreign ministry and UK Foreign Office simultaneously issued a press release to announce a financial transaction with Iran for the export of medical goods from Europe (figure 1).¹ With millions of financial transactions every day, why did this particular one make the news? The transaction was remarkable at a time when financial relations with Iran are near-impossible due to US security sanctions, which increasingly apply to all international payment flows. Thus, the significance of this tweet lay in its announcement of a new framework that enables financial payment transactions between Iran and Europe, called the Instrument in Support of Trade Exchanges (INSTEX). INSTEX is a so-called special purpose vehicle that uses a complex barter-like setup, which means that monies do not have to be transacted in and out of Iran to make payment possible. In this manner, INSTEX transactions are not subject to US sanctions, greatly displeasing the US Ambassador to the European Union, who warned: “Anyone actually using [INSTEX] to trade on anything other than humanitarian activity is going to be sanctioned by the United States ... We'll find them and sanction them and they won't be doing any business with the United States.”²

Despite having completed only one transaction to date, INSTEX is at the forefront of what we call the “global payment infrastructure wars.” In recent years, the United States has pursued an aggressive policy whereby their economic sanctions apply to all global transactions denominated in dollars (Drezner 2015; Giumelli and Onderco 2021; Jaeger 2021). This means that unilateral US security sanctions now have to be implemented and observed by banking institutions around the world, even if the transactions do not touch upon US territory (McDowell 2021). Crucially, sanctions have been leveraged through the global financial messaging network Society for Worldwide Financial Telecommunications (SWIFT), which disconnected Iranian banks after European Union and US pressure in 2015 and again in 2018. This situation has left the EU with a full realization that it cannot develop an independent sanctions policy as long as US sanctions are “hardwired” into global payment infrastructures (Bedford 2019). In this context, the EU is looking to build alternatives, and INSTEX is a first experimental step in that direction. What matters about INSTEX, then, is its potential to fracture the existing payment infrastructures and challenge the hegemonic power order within them, rather than purely its size and scope, which are limited to date.

Invisible and seemingly technical financial infrastructures have become the site of high geopolitics, as current discussions over the possibility to disconnect Russia from SWIFT also show. As one observer has put it, “the new cold war is financial” (Keatinge 2020). As geopolitical tensions rise

and established hegemonic orders transform, financial payment infrastructures have emerged as a battlefield for dominance and control. Literatures in international politics are increasingly attentive to the infrastructural aspects of hegemonic power and change. Farrell and Newman (2019), for example, theorize the global dependencies on material infrastructures such as the SWIFT network as creating “weaponised interdependence.” These contributions have done much to bring unseen (financial) infrastructures into view for international political analysis (Drezner 2015; Bernards and Campbell-Verduyn 2019; Petry 2020). However, these literatures often regard infrastructures as passive vehicles that hegemonic power can strategically use and misuse for its own political ambitions. They pay less attention to the “agentic capacity” of infrastructures themselves, or what Jane Bennett (2005, 447) might call “the distinctive efficacy of a working whole.”

This paper contributes to debates about infrastructures and hegemony by bringing the political agency of infrastructure itself into view. We offer the term “infrastructural geopolitics” to draw attention to the ways in which hegemonic contestation and fracturing play out in and through infrastructure. Infrastructures are not passive sites to be used in the service of preexisting hegemonic power but can themselves route, block, challenge, or rework power (Folkers 2017; Nolte and Westermeier 2020). Financial infrastructures such as SWIFT and INSTEX are complex and private technological assemblages with their own histories and political clout. We draw on literatures that conceptualize infrastructures as “dense political formations” that sediment past power relations (Anand, Gupta, and Appel 2018, 3). Within infrastructures, past social contingencies and political choices are materially sedimented. As a consequence, infrastructures have “dispositions” that enable or constrain material possibilities (Easterling 2016).

Specifically, we focus on the new trade mechanism INSTEX as a way of analyzing the global battle over financial payment infrastructures. We ask: how and why has hegemonic contestation taken the shape of, and is in turn shaped by, struggles over payment infrastructure? How does INSTEX work, and how does it challenge the hegemonic order inscribed into current financial infrastructures? The importance of INSTEX is related to its geopolitical ambition to build new payment infrastructures that are not affected by US sanctions, because they seek to avoid dollar denominations and/or other points of contact with the United States. In this sense, INSTEX and trade with Iran are core, not marginal, to contemporary global political-economic change and contestation. Our paper thus also contributes to analyzing international political economy beyond a focus on the West, where non-Western economies are too often cast as mere peripheries (Seth 2013; Koddenbrock 2020; Tansel 2020). Our broader programmatic objective in this paper, moreover, is to set out an agenda for analyzing the geopolitics of seemingly technical global payment infrastructures. These infrastructures will become increasingly fractured in the coming years, with European, Russian, and Chinese challenges to SWIFT hegemony, as well as the rise of blockchain technologies (Leibbrandt and de Terán 2021; Campbell-Verduyn and Giumelli 2022).

¹INSTEX successfully concludes first transaction, March 21, 2020, at https://www.gov.uk/government/news/instex-successfully-concludes-first-transaction?utm_source=0e2af760-b66b-433f9f8c.

²Farda, Radio. US Ambassador To EU Warns Companies Not to Use New Trade Mechanism. Available at <https://en.radiofarda.com/a/us-ambassador-to-eu-warns-companies-not-to-use-instex/29759877.html>.



Figure 1. Tweet by German Foreign Office on the first INSTEX transaction, March 31, 2020.
Source: Available at <https://twitter.com/GermanyDiplo/status/1244902540812189697?s=20>.

The notion of “infrastructural geopolitics” aims to offer a framework to capture the ways in which infrastructure shapes geopolitical struggles, not simply as a tool but as an active router with agentic capacity. To this end, we develop an approach that identifies the elements of *sedimentation*, *political resurfacing*, and *fracturing* as key pathways through which to analyze the hegemonic politics of the contemporary payment infrastructure wars. The paper is structured as follows: we begin by engaging the current literatures on hegemony and infrastructures. Then, we outline an approach that brings the agency of infrastructures into better view. Subsequently, we analyze the contemporary payment infrastructure wars as a process of sedimentation, resurfacing and fracturing. In conclusion, we sketch the future of increasingly fragmented payment infrastructures.

Infrastructural Hegemony

The creation of INSTEX to enable international financial transactions that can no longer take place via established routes because of US sanctions, shows how infrastructures establish, sediment, and also contest political hegemony and power relations. INSTEX seeks to challenge the existing financial hegemony, understood as “widely shared commonsense” that is infrastructurally encoded (Mouffe 1993, 53). Existing academic literatures increasingly recognize the importance of infrastructure in hegemonic politics. As we argue in this section, however, these literatures normally focus on the establishment and contestation of hegemonic power *through* infrastructure, whereby technical systems (such as SWIFT) are considered to be a passive conduit for geopolitical power. In contrast, we develop the notion of hegemonic power *as* infrastructure, which recognizes the agentic capacity of infrastructures, as they help determine the shape, conditions, and capacity of hegemonic action.

Infrastructures have gained academic attention in analyses of geopolitics as a vehicle for hegemonic power struggles. Daniel Drezner (2019) discusses the role of economic infrastructures that exclude the United States and finds them inefficient to form a counter-hegemonic movement. According

to Drezner, recent infrastructural projects such as China’s Belt Road initiative do not seek to challenge the established order but rather seek expand influence within the existing one. In their account on “The Unraveling of American Power,” by comparison, Cooley and Nexon (2020) argue that US sanction regimes encourage Russia and China to establish and develop alternatives to the SWIFT international payment system and dollar-denominated trade (also Giumelli and Onderco 2021).

Concerning the role of finance in hegemonic politics, scholarship has highlighted the ongoing dominance of the United States within the international economic and financial system (Norrlof et al. 2020). “Dollar hegemony” is the main enabler to the US sanctioning power and reach (Germain 1997; Norrlof 2014; Helleiner 2017). This literature emphasizes two components of the ongoing US hegemony: the dominance of the US dollar in the global monetary and financial systems, and the central position of US actors within global payments system (Norrlof et al. 2020). It is precisely these two factors that allow the US to leverage its security sanction policies through financial infrastructures, and force banks and business around the world to comply, even in cases where trade and transactions do not touch upon US territory. While political alliances and hegemonies may break, US economic dominance nevertheless endures, rooted in financial infrastructures.

With their concept of “weaponized interdependence,” Farrell and Newman (2019) recognize that financial and digital infrastructures (which they also call networks) are increasingly used as a tool for political ambitions. They discuss how the financial payment infrastructure SWIFT is an important node for power asymmetries (also de Goede 2012a, 2012b). Farrell and Newman emphasize how such networks and nodes contribute to power asymmetries that work through panopticon and chokepoint effects: “In the former, advantaged states use their network position to extract informational advantages vis-à-vis adversaries, whereas in the latter, they can cut adversaries off from network flows” (Farrell and Newman 2019, 46). Farrell and Newman (2019, 53) use network theory to describe how some actors, mainly the United States and the United Kingdom, are better

connected than others and constitute “exceptionally highly connected nodes in global financial networks”.

While these literatures successfully draw attention to the role of networks and infrastructures in geopolitics, their conceptualizations remain limited to a notion of hegemony *through* infrastructure. Infrastructures are cast as largely a-historical and passive sites that hegemonic powers can use and misuse, rather than as sites of agentic politics of their own. Without paying much attention to the origins, capacities, and complexities of these networks, the focus lies primarily on how state hegemonic power “deploys to coercive ends” the networked nodes of international order (Farrell and Newman 2019, 47).

What we term hegemony *as* infrastructure, in contrast, foregrounds how infrastructures’ technical specifications, commercial incentives, and material routes *themselves* entail political relations. Infrastructures are not simply a tool for hegemonic power but can also be stumbling blocks and sites where hegemonic power is shaped, blocked, and routed in specific ways. Within the field of international relations, research on international logistics has foregrounded such political implications of transportation infrastructures as spatial practice of circulation (Hönke and Cuesta-Fernandez 2018; Schouten, Stepputat, and Bachmann 2019). There is also a growing literature largely outside international politics that shows how infrastructures materially sediment hegemonic power relations, understood as the cultural, political, and societal conceptions that were dominant at the time of their planning and creation (Star 1999; Braun and Whatmore 2010; Larkin 2013; Anand, Gupta, and Appel 2018; Folkers 2019). As Nikhil Anand, Akhil Gupta, and (2018, 3) put it,

material infrastructures, including roads and water pipes, electricity lines and ports, oil pipelines and sewage systems, are dense social, material, aesthetic, and political formations that are critical both to differentiated experiences of everyday life and to expectations of the future.

These literatures connect to the dialogue between international politics and science-and-technology studies (STS; Aradau 2010; Barry 2013; Best and Walters 2013). They have shown that infrastructures, including roads, railways, dams, timezones, electricity grids, and sanitation tracts, have historically been crucial to hegemonic rule and postcolonial nation building (Edwards and Hecht 2010; Mukerji 2010; Folkers 2017). Andreas Langenohl (2020, 11), for example, has argued that we need to pay “attention [to] the infrastructural imagination as a construct that is bound up with the rise of the modern nation-state in the historical west.” Surprisingly however, this literature has yet to pay attention to currency and payment infrastructures, although these are vital to modern life and a recognized site of colonial politics (Helleiner 2002; Koddenbrock 2020; Merrino 2020).

We draw two elements from this broad literature on infrastructures to develop the notion of hegemony *as* infrastructure. These elements foreground the *political* character of material connections, which is often forgotten when infrastructures are described as invisible or instrumental. First, it is important to unpack how infrastructures hardwire particular historical power relations. In this paper, we use the term “sedimentation” to conceptualize the ways in which past political choices become layered inside infrastructural specifications and routes. Combined with the concept of “disposition,” we seek to capture how these sedimented politics shape the active form of infrastructure that enables and constrains current (political) possibilities. Andreas

Folkers (2017) discusses infrastructures as a matter of political concern ranging from the totalitarian Nazi state to the liberal state, with each technopolitical regime “exhibiting a unique relation between infrastructure and state powers” (Folkers 2017, 29). Infrastructures reflect the ideals of a certain period in time and political ambitions become sedimented inside them. As Stephen Collier’s (2011) study of post-soviet infrastructural reform also shows, for example, “stubborn material structures and spatial forms of Soviet socialism” constrained the introduction of new (neoliberal) principles. Infrastructural endurance is based on material and physical natures, which make them difficult to change. This perspective thus requires us to think about the conditions and rationalities that were dominant during the planning and establishment of certain infrastructures.

Second, infrastructures are not just sedimentations of past power but also act as active *routers* that shape power relations in the present—in other words, infrastructures have agentic capacity of their own. As Brenda Chalfin has put it, “infrastructure is not a stable ground but an active political matter” (Chalfin 2017, 667). The agentic capacity of infrastructure has been theorized as its “disposition,” understood as its “propensity” to enable or constrain possibilities. Infrastructural disposition, according to Keller Easterling (2016, 73), is a “stubborn [form] of power ... hiding in the folds.” As she puts it,

Disposition [...] is the medium, not the message. It is not the pattern printed on the fabric but the way the fabric floats. It is not the shape of the game piece but the way the game piece plays ... Not the object form, but the active form (Easterling 2016, 14)

For example, in his work on financial exchanges, such as the London Stock Exchange or Nasdaq, Johannes Petry (2020) shows how stock exchange infrastructures organize and structure how markets work, and thereby constrain and enable market participants in particular ways. By comparison, Amina Nolte (2016) shows how the routes and spatial dis/connections of the Jerusalem Light Rail play an active role in the formation of political collectivity (also Opitz and Tellmann 2015). The contested route of the train manifests territorial claims of the Israeli government while some Palestinian neighborhoods are excluded from its services which has resulted in protests and attacks against the train. Infrastructural projects “symbolise a form of political dominance and further materialise the hegemonic visions of the nation state” (Beier and Nolte 2020, 10; also Özdemir and Nolte 2018). A perspective that foregrounds hegemony *as* infrastructure, then, enables the empirical study of the sedimented power relations and the disposition of infrastructures themselves. This adds important elements to the question how hegemonies are established, how they endure and become challenged.

Sedimentation, Resurfacing, Fracturing

We have argued that infrastructures comprise sedimented power relations and that infrastructures have to be acknowledged for their agentic capacity to shape, block, route, and challenge hegemonic power. Within infrastructures, hegemonies are enfolded as “stubborn power relations” (Easterling 2016, 73). To analyze the hegemonic politics of financial infrastructure, we propose three terms that capture the processual nature of political stabilization, resurfacing, and fracturing and apply them to the emergence of new payment infrastructure INSTEX. This tripartite approach is loosely based on the understanding of hegemony as

offered by Ernesto Laclau and Chantal Mouffe (2001) who show that hegemonies are the result of antagonistic struggles and constant negotiation, which momentarily become stabilized. In Mouffe's (2008, 53) words, "a successful hegemony signifies a period of relative stabilization and the creation of a widely shared 'common sense'." In Laclau and Mouffe's reading, then, hegemonic orders entail slow processes of sedimentation and stabilization that can however become repoliticized and fractured.³ In the following, we use the notions of sedimentation, resurfacing, and fracturing as heuristic devices to analyze how power relations were materially embedded and how they became subject to renewed political contestation.

First, as already discussed in the previous section, past power relations are sedimented inside technical infrastructures. Sedimentation entails a slow layering of particular political choices, concerning, for example, technical specifications or routings, which become hardened inside infrastructure. For Laclau and Mouffe, the notion of *sedimentation* describes a process of routinization and "forgetting of origins" (Marchart 2007, 139; referring to Laclau 1990). Political contestations that may have occurred are forgotten after the moment of fixation:

the system of possible alternatives tends to vanish and the traces of original contingency [tend] to fade. In this way, the instituted tends to assume the form of a mere objective presence. (Laclau 1990, 34)

These power relations are largely backgrounded in the daily use of infrastructure, but they remain the infrastructural core. As infrastructure is built to endure, new connections, technologies, and options may be added as layers on to the original shape. Here, we use the notion of "sedimentation" also as a heuristic device to enquire into the ways in which historical power relations are built into global payment infrastructures, yet subsequently forgotten as technical infrastructure becomes hegemonic through routinization and everyday use.

Second, the notion of *political resurfacing* helps capture and analyze the ways in which infrastructural dispositions come to the surface of political discussion again. We draw on the notion of resurfacing to analyze the processes through which the political origins of financial infrastructures became apparent again in the enactments of the Iran sanctions and the breakdown of the Iran Nuclear Deal. The political power relations that underpin the established financial payment system come to the fore in a specific political constellation. The post-Bretton Woods era with its specific power relations is hardwired in the SWIFT system and resurfaces as a stumbling block when power configurations change or become challenged.

Last, the notion of *fracturing* seeks to capture the moment in which new, rival understandings and (infra)structures may be built and take root. We use the notion of fracturing to unpack the ways in which monopolistic and largely invisible financial payment infrastructures became a new site of political struggle. INSTEX emerges in this space of fracturing as a nascent system of economic exchange that heralds the possibility of radical change but that does not establish a coherent new hegemony. Fracturing thus describes a phase in which hegemony is challenged *infrastructurally*. INSTEX offers the potential of new financial payment channels and

networks that feature the possibility for different power relations. It must be noted, moreover, that for non-Western participants in international payment, financial infrastructures have always been "fractured" in the sense of being uneven and configured by a series of tensions, as David Slater (2004) shows.

In what follows, we use the notions of *sedimentation*, *resurfacing*, and *fracturing* to analyze how financial infrastructures actively encode, shape, and route hegemonic power. In line with our approach to take infrastructure seriously in their capacity to shape hegemonic politics, this analysis draws on primary documents and interviews. In particular, we have been able to access and speak to "infrastructural actors," understood as those in charge of the design, development, and smooth running of payment infrastructure. These interviews were exploratory, but they provided insights into a largely secretive field (Robinson 2021). At several occasions the interviewees indicated if the interview touched upon sensitive details. As these interviews served to gain insights into the field and its workings in general, these restrictions do not limit the empirical or conceptual findings. The interviewees were selected carefully and we ensured anonymity as well as strict (interview) data protection. Due to pandemic restrictions, access to the interviewees took place via telephone or video calls. As it is impossible to study global infrastructures in their entirety, this paper's perspective follows in-situ access points to capture the role of financial infrastructures in geopolitical struggles.

Sedimentation: SWIFT and the Postwar Financial Order

In this paper, we use the history, emergence, and contestation of the new payment vehicle INSTEX as a lens on to broader infrastructural geopolitics, as they crystallize around security sanctions. We ask: how did normally invisible and highly technical payment infrastructures become contested to the extent that they are now central to high geopolitics? And what does the emergence of INSTEX tell us about contemporary hegemonic change and contestation?

To address such questions, we start with the question how power relations were historically sedimented inside global technical payment infrastructures: what are the *dispositions* of the existing payment infrastructures? Analyzing the power relations layered inside payment technologies helps move away from the suggestion that a neutral technology became politically "misused" for security sanctions, toward showing how payment technology was always inscribed with particular routings and power hubs (Maurer 2012). SWIFT has been the (near)-dominant international payment network in the post-World War II global order. SWIFT was founded in 1973 to support the operation of international commerce and business in the context of the Bretton Woods breakdown (Scott and Zachariadis 2014; Helleiner 2017). SWIFT does not send or manage actual financial flows but provides the secure bank-to-bank messaging that is required for international fund transfers. SWIFT handles about 80 percent of global financial messaging traffic, which means that it functions as an "obligatory passage point" for global financial wire transfers (Scott and Zachariadis 2014, 127). SWIFT is a private actor yet calls itself a cooperative and casts its mission very much in terms of public goods provision and the ensuring of frictionless global financial transactions.⁴

Instead of acting as a neutral mediator, the global financial payment infrastructure as built and maintained by the private company SWIFT sediments power

³Laclau and Mouffe's focus on the discursive nature of political antagonism is in tension with the focus on materiality and technical endurance that accompanies our infrastructural approach. Here, we draw on parts of Laclau and Mouffe's thinking on hegemony and its contestation, while acknowledging that considerable differences remain.

⁴<https://www.swift.com/>.

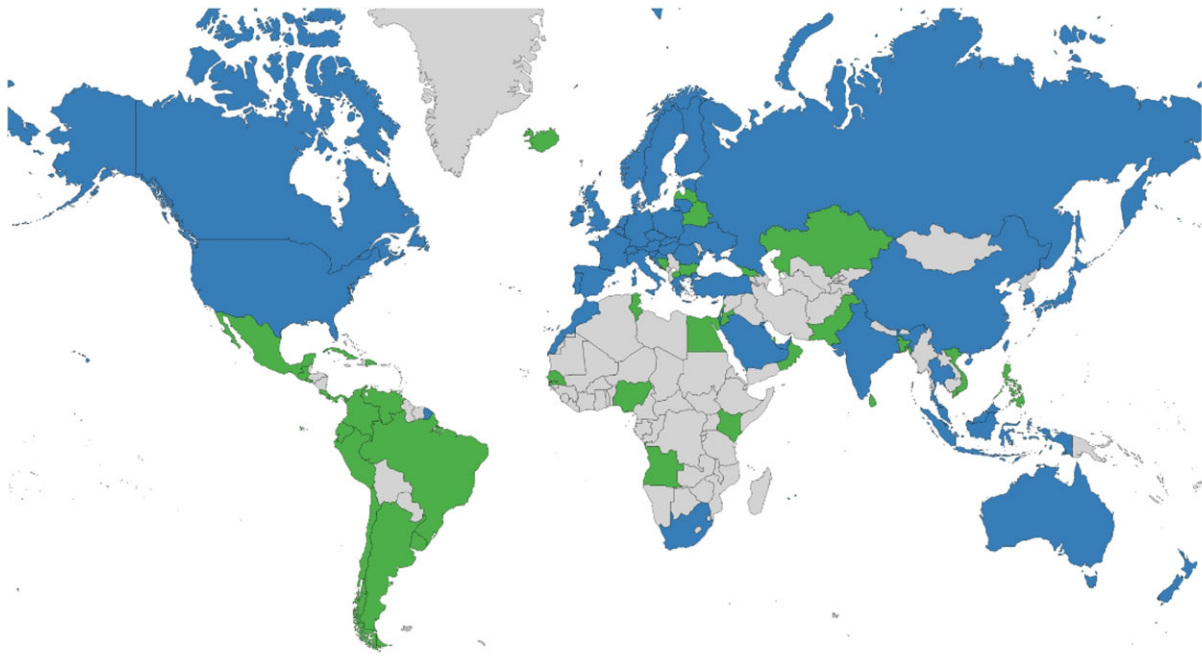


Figure 2. SWIFT's core-periphery classification (as of July 2013): core countries are colored blue and periphery countries are colored green. The gray countries are the smallest countries in terms of total messages sent and received. *Source:* Cook and Soramäki (2014, 15).

relations of the Bretton Woods era. As Dörny, Robinson, and Derudder (2018, 12) put it, “SWIFT’s historical emergence is closely linked with the geo-political situation in the 1970s ... [which] still shapes SWIFT’s internal organisation, its power structures and its degree of functional connectivity.” A key aspect of SWIFT’s operation is standard setting: it has created both the secure infrastructure and the standardized message formats that today enable the transmission of more than five billion bank-to-bank messages annually. In addressing the post-Bretton Woods demands for “cost saving, increased volume, and reduced risk,” SWIFT standardization played an important role in the post-Bretton Woods growth of the financial industry (Scott and Zachariadis 2014, 79).

Aggregate maps of SWIFT messaging moreover show that this payment infrastructure also encodes pre-Bretton Woods colonial routes and hubs, with clear core and periphery patterns (figure 2; Cook and Soramäki 2014; also de Goede 2020). Looking at SWIFT routes and functionality from a non-Western perspective shows that some areas of the world were always relatively disconnected and reliant on financial transaction routes via former colonial capitals, which function as financial hubs (figure 2). SWIFT’s dispositions thus entail asymmetries in global connectivity, meaning that for particular non-Western spaces, primarily in Latin America, Africa, and the Middle East, the functionality of financial transactions infrastructure was always precarious and prone to blockage. Rather than assuming smooth global functionality, we have to analyze and map how infrastructures also “create dysfunctionality and insecurity by dint of their very mode of operation” (Langenohl 2020, 12). As Langenohl concludes, “neither a functional dedication ... nor a reference to “society” as a totality, are characteristic of infrastructures per se” (Langenohl 2020, 12). Hence, particular states and groups in the global South have always been excluded from the smooth functioning of SWIFT and global financial infrastructures, the functioning of which could never be taken for granted.

Even if SWIFT did not originate as a tool of statecraft, then, it has always carried particular dispositions within its infrastructural setup and routes, which emerge from past political choices. Western hegemonic politics, based on Bretton Woods bargains, but with postcolonial elements, became sedimented in the SWIFT infrastructure and allowed the company to become an obligatory passage point. SWIFT thus is part of (and profits from) the sedimented power relations that are hardwired into the seemingly technical operations of financial transaction communications. Yet, sedimentation is always based on exclusions that are concealed inside the status quo. In the case of the postwar SWIFT infrastructure, those political choices relate, on the one hand, to particular financial rationalities of speed and risk and, on the other hand, to particular geographical disconnections and exclusions from financial speed and flow. These traces of exclusion remained present inside the infrastructural technologies, offering grounds for potential political reactivation (cf. Laclau 1990, 34).

Political Resurfacing: From the War on Terror to JCPOA Breakdown

Clearly, there is not one moment of the political resurfacing of the sedimented logics in the technical and largely invisible SWIFT infrastructure, which supported postwar financial order and sedimented its uneven power relations. Arguably, the slow process of resurfacing politics started in the wake of 9/11, when the Central Intelligence Agency and US Treasury demanded access to the financial transaction databases of SWIFT, to be used to map terrorist networks (De Goede 2012; Farrell and Newman 2019). This set into motion a longer process of transatlantic political contestation over the legal basis, institutional arrangements, and privacy safeguards of CIA access to the SWIFT database (Farrell and Newman 2019; Bellanova and De Goede 2020).

However, in order to analyze the resurfacing of the politics sedimented inside this financial infrastructure, it is

important to move our analytical gaze beyond the West (e.g., Tansel 2020; Koddenbrock 2020; Tilley 2020). The breakdown of the Joint Comprehensive Plan of Action (JCPOA), known commonly as the “Iran nuclear deal,” has become a key focal point for hegemonic contestation, and here we see the first lines of fracture in global payment infrastructures. Iran had been subject to international sanctions related to its nuclear program since 2010, and in 2015, SWIFT disconnected Iranian banks from its payment hubs and messaging for the first time, thus hardwiring contested security sanctions into its global payment infrastructure. SWIFT was compelled to do so through an EU Council Regulation.⁵ SWIFT’s asymmetric dispositions—which means that Iran experienced limited connectivity—made it a suitable chokepoint for the Iranian disconnection. The disconnection from international payment infrastructure placed considerable pressure on Iran during the negotiations of the JCPOA, which was eventually concluded in 2015. The JCPOA limits and monitors Iranian nuclear ambition and production and promises to end all sanctions against Iran and reconnect it to SWIFT.

From the Iranian perspective, the security sanctions have severely affected its economy, devalued the Iranian rial, and has made trade with Iran complicated, expensive, and in many cases impossible (Portela 2010; Farzanegan 2013). Iranians themselves sometimes refer to the effect of sanctions as having caused the “nuclearization (*atomi shodan*)” of the rial, because the currency “has suffered an ever-diminishing value—a ‘half-life’ ... in international currency and financial markets built around the U.S. dollar” (Yildiz 2020, 220). Research shows that sanctions had major negative impact on Iran’s informal economy and that Iranians engage in creative but costly and cumbersome ways to remit monies internationally (like cross-border commodity trade) (Farzanegan and Hayo 2019; Yıldiz 2020). Emrah Yıldiz (2020, 219) uses the term “nested entanglements” to analyze how, in this global context, “Iranians and Europeans are insecure” in different but connected ways.

A key aspect of the JCPOA is the promise of termination of all EU and US sanctions against Iran.⁶ To this end, the JCPOA explicitly specifies that “specialised financial messaging services” with the Central Bank and other Iranian financial institutions should resume promptly via SWIFT.⁷ However, financial transactions with Iran were historically precarious and did not resume after the conclusion of the JCPOA in 2015. The technical configurations of international payment infrastructures and the ways in which sanctions had become hardwired inside them proved a lasting stumbling block to resuming transactions with Iran. In the first instance, Iran was reconnected to the SWIFT network, but it was not able to engage in transactions, “like being on Facebook but having no friends.”⁸ Moreover, banks remained extremely hesitant to transact with Iran, fearing potential fines from the US Financial Crimes Enforcement Network (FinCen; Amicelle and Chaudieu 2018). In 2018, the US Trump government pulled out of the JCPOA completely, and a few months later SWIFT disconnected Iranian banks for a second time.

SWIFT itself can be seen as an infrastructural actor that maneuvered uneasily between US and EU sanctions politics,

trying to maintain neutrality but engaging in diplomatic politics that played a role in shaping outcomes. Of the 2018 disconnection of Iran, which was not compelled by a European Regulation as in 2015, SWIFT claimed to have made its own decision, not forced by international law or regulations. In a public statement, SWIFT did not refer to the Trump government actions, noting that the decision to sever fifty Iranian financial institutions from its network was “regrettable” but “done to maintain the stability and integrity of the global financial system” (Eavis 2018). It is known that the US government explored the possibility to sanction SWIFT and its executive board personally if it continued transactions with Iran, for example, by arresting SWIFT staff, seizing assets, or through designations.⁹ At the same time, the 2015 disconnection and SWIFT’s reluctant role in the War on Terror made it predisposed to enact anew the Iranian disconnection: security politics has slowly become part of SWIFT’s disposition (Leibbrandt and de Terán 2021).

For European partners, the infrastructural disconnection of Iran was the central concern and hindrance to uphold their commitments under JCPOA, including the intention to end all sanctions. In a letter to Pompeo and Mnuchin in June 2018, European leaders including Johnson, LeMaire, Mogherini, and Merkel requested:

exemptions to maintain banking channels and financing channels with Iran. This notably includes maintaining links with the Central Bank of Iran as well as with the other Iranian banks that are not sanctioned by the European Union and the preservation of financial messaging services (SWIFT) to these banks.¹⁰

However, this request was simply “rebuffed” by the US.¹¹ Financial channels with Iran were not restored via SWIFT or otherwise. The hardwiring of US security sanctions into the SWIFT infrastructure prevented the EU—which wished to honor the JCPOA—from lifting sanctions and keeping to *its* part of the deal. As one interviewee explained, in this situation “European governments are essentially unable to maintain normal trade relationships with a country that is a trading partner if the United States is somehow opposed.”¹²

The SWIFT disconnection made it *infrastructurally impossible* to continue trade with Iran, even for transactions that do not touch upon US jurisdiction or involve US companies. US security sanctions became hardwired into the SWIFT global payment infrastructure (Bedford 2019). It became impossible for the EU to resume trade with Iran or to chart an independent sanctions policy. It forged the slow realization in Europe that alternative channels were needed. In the words of one interviewee,

foreign ministries and economy ministries in Europe were not really up to speed on what it would take to defend their trade with a country like Iran in the face of a US policy the way the Trump administration has ... advanced it and it took a while for them to figure out that this was going to be a fairly complicated and drawn out process.¹³

Yet, the Iranian disconnections from SWIFT in 2015 and 2018 were highly visible and hotly debated: they brought

⁵EU Council Regulation No 267/2012 of March 23, 2012, concerning restrictive measures against Iran. Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0267> (accessed July 7, 2022).

⁶JCPOA at a glance. <https://www.armscontrol.org/factsheets/JCPOA-at-a-glance> (accessed October 9, 2020).

⁷Paragraph 19.iv. of the Joint Comprehensive Plan of Action, 2015.

⁸Interview with representative of financial telecommunications company, via online interview, December 2018.

⁹Interview with representative of financial telecommunications company, via online interview, December 2018.

¹⁰“Joint E3 letter to Steven Mnuchin and Mike Pompeo on JCPOA,” June 6, 2018. Available at <https://www.gov.uk/government/publications/joint-e3-letter-to-steven-mnuchin-and-mike-pompeo-on-jcpoa>.

¹¹Interview, Bourse & Bazar representative, via online interview, April 7, 2020.

¹²Interview, Bourse & Bazar representative, via online interview, April 7, 2020.

¹³Interview, Bourse & Bazar representative, via online interview, April 7, 2020.

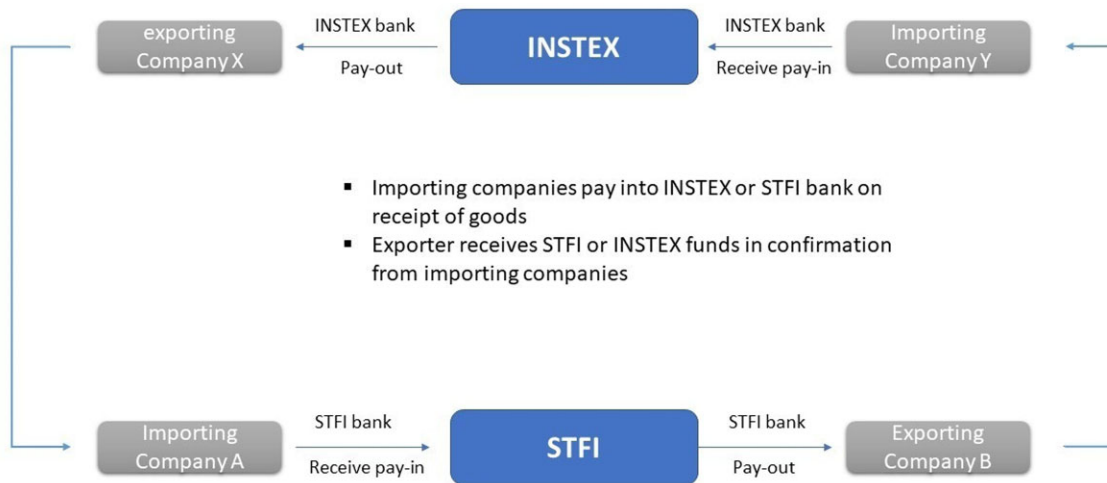


Figure 3 INSTEX mechanism, own drawing, based on information provided by INSTEX.

normally invisible and technical payment infrastructures into public view. They entailed a resurfacing of its politics and spurred discussion in various national parliaments about the scope of using such disconnections politically.¹⁴ In fact, at the time of writing, lively discussions are taking place about the possibility to enact sanctions against Russia through the SWIFT network, in the event that it should invade Ukraine. The resurfacing of infrastructural politics was grounded in earlier struggles about the institution of SWIFT and its partial dis/connections. The disposition of the infrastructure that reflects the post-Bretton Woods' political consensus played out as a "stubborn form of power" (Easterling 2016, 14) and hindered (European) political ambitions. This process of resurfacing did not simply replay earlier politics, but took its own contemporary shape, culminating in the JCPOA breakdown and the EU/US tensions in the Trump era. With sanctions infrastructurally encoded in SWIFT, questions concerning the historical contingency of this particular payment infrastructure and its reliance on the US dollar came to the surface. Subsequently, suggestions and debates concerning potential alternatives to SWIFT for global financial messaging were increasing.

Fracturing: INSTEX

In 2019, INSTEX was launched as an infrastructural project with Germany, France, and the United Kingdom as its main stakeholders, to enable payments with Iran outside the scope of SWIFT, and beyond the reach of US sanctions. INSTEX's slogan—"Secure. Efficient. European."—summarizes its main drivers: security politics, economic gain, and European geopolitical ambitions. In March 2020, after more than a year of preparation, INSTEX completed the first transaction to export European medical supplies to Iran in a complex Rial–Euro denominated barter system. The fact that nearly one year passed between the US withdrawal of the JCPOA and the first transaction via INSTEX shows that European governments had to come to terms with the new situation. The instalment of INSTEX however signaled the first lines of fracture in the hegemonic politics that are hardwired inside SWIFT. We consider the first INSTEX transaction to constitute a moment of fracturing of the infrastructural geopolitics of the post-War era.

The disposition of INSTEX as a technical infrastructure is to remain beyond the grasp of US security sanctions, through a complex setup that avoids cross-border payments. INSTEX functions as a clearing house that enables economic exchange between Europe and Iran without using the SWIFT network. In Iran, INSTEX is mirrored by a special purpose vehicle, the Special Trade and Finance Instrument (STFI), to settle claims between importing and exporting companies within a "closed loop" financial system. INSTEX and STFI match transactions between Iran with the effect that two Iranian companies pay each other and European companies pay each other (figure 3). Hence, the interaction between INSTEX and STFI does not present an alternative payment channel for transactions, but rather the two companies coordinate economic exchange. For this purpose, they are in close contact and promote the trade mechanism jointly as their "business models" rely on their cooperation. Iranian companies that want to trade with Europe are advised to contact STFI while European companies that want to do trade with Iran should contact INSTEX at a very early stage. STFI and INSTEX facilitate trade by advising companies on how to maneuver rules of compliance and due diligence.

INSTEX does not exactly present an alternative to the SWIFT network, but works fundamentally differently, as figure 3 shows. There is no seamless financial "flow" between Iran and Europe, but INSTEX and STFI arrange a substitute for direct payments. The heads of both STFI and INSTEX complain that the main burden for enabling trade are the manifold measures to ensure confidentiality for banks and companies.¹⁵ They both have a budget to buy claims from companies that export goods. Direct payments between Iran and Europe should be kept to a minimum, but they might occur due to imbalances during the exchange. In its infrastructural disposition, then, INSTEX enables a very specific set of economic exchanges. It is not designed as a network that would connect a multiplicity of actors but is limited to INSTEX and its counterpart STFI that bundle and facilitate financial interactions between (primarily) European and Iranian actors. While their initial activities have

¹⁴Interview with representative of financial telecommunications company, via online interview, December 2018.

¹⁵AHK Iran, Interview with the head STFI (in German) AHK Iran. <https://iran.ahk.de/mediathek/news-details/unsere-aufgabe-ist-es-die-handelsbeziehungen-zwischen-iran-und-eu-zu-stabilisieren> (accessed January 31, 2022); AHK Iran, Interview with the head INSTEX (in German). <https://iran.ahk.de/mediathek/news-details/ich-appelliere-an-alle-seiten-vertrauen-in-uns-zu-setzen> (accessed January 31, 2022).

a very limited volume, the setup is nevertheless designed to scale and handle larger volumes and potentially allow actors from other non-European countries to use the special purpose vehicle.

INSTEX did not develop as a hegemonic project built to replace SWIFT but rather emerged as an “reluctant undertaking” that is however the *sine qua non* of political maneuvering.¹⁶ Its instalment and operation thus present a difficult balancing act—technically and politically. Supporters of INSTEX and INSTEX themselves are eager to highlight that it is not an instrument to purposefully circumvent US sanctions. Instead, INSTEX is positioned as a vehicle to ensure European autonomy and independent sanctions policy. As INSTEX writes on its website,

As an EU-based entity, INSTEX does not implement or adhere to third party sanctions regimes, does not apply third party lists to our business, nor does it disclose data relating to our trading activity outside the jurisdictions of Europe and Iran.¹⁷

While INSTEX emphasizes that it adheres to European and international regulation, it is currently limited to facilitate the trade of humanitarian goods. Yet, the mechanism is potentially open to any kind of trade. The scope of “humanitarianism” is broadly defined, and the framework allows inclusion of ancillary services that are needed to deliver humanitarian goods, such as transport, accounting services, or packaging. Despite its ongoing compliance with the US sanctions regime, the Trump administration nevertheless threatened to exclude INSTEX and anyone associated with it, from the US financial system. In a letter from the US Treasury Department, INSTEX president Per Fischer was warned “to carefully consider the potential sanctions exposure of Instex. (...) Engaging in activities that run afoul of US sanctions can result in severe consequences, including a loss of access to the US financial system.”¹⁸

Resulting from the process of resurfacing in which the political origins of global financial infrastructures become apparent again, the instalment of INSTEX shows that the current architecture of payment infrastructures is being perceived as contestable in its contemporary configuration. This infrastructural fracturing is the moment in which the core of the established infrastructure is repoliticized. The process of resurfacing of the sedimented core exposes its political disposition. While INSTEX’s significance is often described as a way to circumvent US sanctions on Iran, its geopolitical meaning goes beyond the JCPOA. One interviewee called INSTEX a “a pilot stage of what may eventually, and I think it’s like a decade long process, what could become a sort of parallel financial architecture.”¹⁹ These statements indicate how the creation of INSTEX exceeds the question of sanctions and advances the fragmentation of payment infrastructures. It marks the repoliticization of the forgotten origins of SWIFT and opens new avenues and infrastructural possibilities in a battle over payment infrastructures.

Fragmented Financial Infrastructures?

We have argued that the creation of INSTEX entails a fracturing of the existing hegemonic order inscribed in SWIFT.

¹⁶Interview, Bourse & Bazar representative, via online interview, April 7, 2020.

¹⁷<https://instex-europe.com/about-us>

¹⁸<https://www.bloomberg.com/news/articles/2019-07-18/mnuchin-warns-europe-not-to-breach-u-s-sanctions-on-iran#xj4y7vzkg> (accessed January 31, 2022).

¹⁹Interview, Think-tank representative, via online interview, May 1, 2020.

It resurfaces questions about the politics sedimented inside the SWIFT infrastructure and about the existing financial routes and disconnections. In this sense, INSTEX is “a financial solution to a diplomatic problem.”²⁰ With INSTEX only in its infancy, what is its significance for infrastructural geopolitics? Despite the limited number of transactions that are enabled through INSTEX, which only marginally ease the pressure of sanctions on Iran, its instalment potentially has major political implications. Concretely, INSTEX provides the capacity to continue business with Iran, but it is also an agent of geopolitical ambition. As one representative put it,

If I worked for the current US administration (...) I would want INSTEX to die yesterday because INSTEX right now is nothing, in the grand scheme of things, (...) but the concept, the idea of INSTEX is dangerous because it says there can be alternatives and people operating outside of the US controlled system.²¹

INSTEX signals the advent of a more fractured financial system, with the possible development of multiple alternative infrastructures (Mulder 2018). INSTEX contests the contemporary hegemonic financial infrastructure in the sense that actors that previously supported and profited from the established order started to question it. The sheer possibility for new financial infrastructure to arise opens up space for new alliances. For example, Russia had signaled its willingness to join the INSTEX mechanism, which the EU welcomed at first but declined later.²² While this cooperation did not materialize, the fact that it was briefly considered shows how the infrastructural fracturing gives way to new political formations.

In addition, there are other technical financial infrastructures that work to circumvent and challenge dollar-denominated financial hegemony, including the use of new technologies such as cryptocurrencies (Rosales 2019; Campbell-Verduyn and Giumelli 2022). A small bank, called Kunlun, that was controlled by the Chinese state energy group China National Petroleum Corporation, functioned as a key channel to maintain payments between China and Iran, even while forceful US sanctions were in place.²³ As the top buyer of Iranian oil, China conducts most of its payments to Iran in yuan and euros. Kunlun was affected by US sanctions from 2010 onward and thus increasingly unable to do business through US-based affiliates or US correspondent banking accounts. Unlike European banks affected by fines (often also for trading with Iran), Kunlun has contested the imposition of these sanctions, writing on its website:

China and Iran have normal, open and transparent business cooperation in the energy and trade areas. Such cooperation has nothing to do with Iran’s nuclear program. So Bank of Kunlun is not in violation of any UN Security Council resolutions, and sanctions should not be imposed on Bank of Kunlun.²⁴

²⁰Interview, payment infrastructure practitioners, via online interview, September 17, 2020.

²¹Interview, payment infrastructure practitioners, via online interview, September 17, 2020.

²²“Kremlin Throws Weight behind EU Effort to Boost Iran Trade,” *Financial Times*, <https://www.ft.com/content/3aa3e7ee-a8b7-11e9-984c-fac8325aaa04>.

²³Interview, Bourse & Bazar representative, via online interview, April 7, 2020.

²⁴Bank of Kunlun, “U.S. imposing sanctions on Bank of Kunlun severely violated the principles of international relations.” <http://www.klb.cn/cklbank/921141/922614/922636/index.html> (accessed June 23, 2021).

However, it was reported that in 2018, Kunlun stopped handling payments from Iran due to the increased US pressure.²⁵ Again, hegemonic dispositions and fracturing played out over and through private financial infrastructures.

Indeed, private and public actors—primarily central banks—in several countries are in the process of developing further alternative systems that seek to bypass dollar-denominated trading that “won’t change the dollar’s dominance in global trade, but they will diminish the U.S.’s power to impose its policies, including sanctions, around the globe” (Scheck and Hope 2019; Nölke 2022). The Russian “System for Transfer of Financial Messages” (SPFS) was set up by the Bank of Russia in 2014 and aims to replicate the functions of SWIFT. More than four hundred financial institutions have joined the network but it suffers from technical limitations, such as restricted trading hours and limited size of messages (Shagina 2021). The Chinese SWIFT substitute, the “Cross-Border Interbank Payment System” (CIPS), and the digital Yuan are seen as potential financial infrastructures that could gain force and importance in the coming years, especially in Eurasia. In 2019 about 980 financial institutions in 96 countries have used the CIPS system, including 31 banks from African nations that receive yuan funds via Beijing’s Belt and Road Initiative.²⁶

Infrastructural fracturing has been ongoing in many parts of the world. For several countries, the dispositions of the established financial system posed hindrance and threats to their political ambitions. From a European perspective, INSTEX is of key importance to facilitate trade that is independent of US approval. It is thus the effect of the process of resurfacing in which European countries have become aware of their dependence on financial infrastructures that sediment dollar hegemony. Several interviewees emphasize that INSTEX is created as a “European sovereign vehicle” presenting “the very, very, very infant stages of some sort of a structure for economic sovereignty in Europe.”²⁷ New discussions around “strategic sovereignty” and claims that the “EU needs to learn to think like a geopolitical power” underline how European ambitions have altered (Leonard and Shapiro 2019). After French Finance Minister Bruno Le Maire initiated a reform of the Euro, the European Commission has enforced efforts to strengthen the international position of the Euro.²⁸ For example, German Foreign Minister Heiko Maas expressed a European ambition to “strengthen European autonomy by establishing payment channels independent of the US ... and an independent SWIFT system” (Maas 2018). In 2018, the European Commission laid out plans to move “Toward a Stronger International Role for the Euro” in international trade, financial markets, and payment. Europe’s geopolitical ambition is built in and through financial infrastructures, combining economic and security agendas. In January 2021, the EU Commission proposed a new strategy to “foster the openness, strength and resilience of the EU’s economic and financial system.” One aim is to avoid “over-reliance on the provision of such crit-

ical services by operators located in third-country jurisdiction.”²⁹ The fracturing that INSTEX entails is thus closely related to other developments that aim to install an infrastructural alternative to SWIFT. Ranging from payment systems to new central bank digital currencies (CBDCs), the fracturing of infrastructural hegemony is taking shape, showing how geopolitics play out in and through infrastructures.

Conclusion

This paper has emphasized the agentic capacities (disposition) of infrastructures within the global battle over financial payment. Infrastructures are not simply a tool for political power, but they are sites where hegemonic power is shaped, blocked, and routed in specific ways. Through the lens of the new trade mechanism INSTEX, we have discussed the ways in which hegemonic projects and their contestation play out in and through financial payment infrastructure. With current debates over the possibility to enact sanctions against Russia via SWIFT, it is urgent that the politics of global financial payment infrastructures receive more analytical attention within international studies. A perspective inspired by STS is helpful to bring the agency of infrastructure itself into view, showing how technical specifications and hardwired routes create particular political dispositions.

We deployed the concepts of sedimentation, resurfacing, and fracturing to analyze how the contemporary payment wars unfold. We have shown how the postwar financial order was sedimented inside established financial infrastructure, which remained largely unquestioned until the highly visible and highly political JCPOA breakdown. Through the JCPOA process, the political origins of the SWIFT infrastructure resurfaced and became subject to political contestation. As a result of this resurfacing, the current architecture of payment infrastructures was increasingly being perceived as open for contestation. The political core of SWIFT came to the fore as it blocked the EU’s political ambitions. The creation of INSTEX shows that countries that previously supported and profited from the established order started to question it. This repolitization provides room for new political alliances and opens up new ways of thinking as the discourse around European “strategic sovereignty” shows. Future research will show whether the emerging systems whose installations are largely politically motivated will eventually become an alternative financial infrastructure. The private sector will surely play a crucial part within these developments.

We proposed the notion of infrastructural geopolitics to look beyond the ways in which infrastructures are leveraged to advance geopolitics interests. Instead, we aim to bring attention to how infrastructures actively structure (geo)political practices. Following this approach, our paper argued that INSTEX has broad political implications although the concrete mechanism remains limited. INSTEX has advanced the possibility of fracturing international payment routes, with multiple alternative infrastructures emerging. As a number of non-western countries have sought to bypass dollar-denominated trading and the SWIFT network, the new European vehicle INSTEX is one example within a number of emerging alternative systems. While these financial systems have often been assessed in their capacity to challenge the US financial hegemony, we explored

²⁵“As U.S. sanctions loom, China’s Bank of Kunlun to stop receiving Iran payments,” October 23, 2018. Available at <https://www.reuters.com/article/us-china-iran-banking-kunlun-exclusive-idUSKCN1MX1KA>

²⁶<https://asia.nikkei.com/Business/Markets/Rise-of-the-yuan-China-based-payment-settlements-jump-80>.

²⁷Interview, payment infrastructure practitioners, via online interview, September 17, 2020; Interview, Think-tank representative, via online interview, May 1, 2020.

²⁸EU Commission Staff Working Document, *Strengthening the International Role of the Euro*, Brussels, June 12, 2019. Available at https://ec.europa.eu/info/sites/default/files/strengthening-international-role-euro-swd-2019_en.pdf.

²⁹EU Commission, *Questions and Answers: Fostering the openness, strength and resilience of Europe’s economic and financial system*. Accessed January 20, 2022. https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_109.

the wider implications of infrastructural geopolitics. Instead of tracing potential counter-hegemonic projects, new avenues and political options might be considered that take shape in alternative infrastructures. Increasingly these alternative financial channels will explore the possibilities offered by new financial technologies, such as the Blockchain and digital currencies. Further research on financial infrastructures beyond a focus on the West needs to be attentive for these formations and the specific political ambitions and ideals they entail.

Acknowledgments

Thanks to all members of the ERC-FOLLOW research team and TCCG-Programme Group at the University of Amsterdam for their generous comments. Three anonymous reviewers for ISQ provided welcome critical comments. Many thanks to Malcolm Campbell-Verduyn, Amina Nolte, Sven Opitz, Ute Tellmann, and Carolin Metztes for their thoughtful remarks.

Funder Information

This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation program (research project "FOLLOW: Following the Money from Transaction to Trial," Grant No. ERC-2015-CoG 682317).

References

- AMICELLE, ANTHONY, AND KILLIAN CHAUDIEU. 2018. "In Search of Transnational Financial Intelligence: Questioning Cooperation between Financial Intelligence Units." In *The Palgrave Handbook of Criminal and Terrorism Financing Law*, edited by Colin King, Clive Walker and Jimmy Gurulé, 658–59. Cham: Springer.
- ANAND, NIKHIL, AKHIL GUPTA, AND HANNAH APPEL. 2018. *The Promise of Infrastructure*. Durham, NC: Duke University Press.
- ARADAU, CLAUDIA. 2010. "Security That Matters: Critical Infrastructure and Objects of Protection." *Security Dialogue* 41 (5): 491–514.
- BARRY, ANDREW. 2013. "The Translation Zone: Between Actor–Network Theory and International Relations." *Millennium: Journal of International Studies* 41 (3): 413–29.
- BEDFORD, KATE. 2019. *Bingo Capitalism: The Law and Political Economy of Everyday Gambling*. Oxford: Oxford University Press.
- BEIER, RAFFAEL, AND AMINA NOLTE. 2020. "Global Aspirations and Local (Dis-)Connections: A Critical Comparative Perspective on Tramway Projects in Casablanca and Jerusalem." *Political Geography* 78: 102–23.
- BELLANOVA, ROCCO, AND MARIEKE DE GOEDE. 2020. "The Algorithmic Regulation of Security: An Infrastructural Perspective." *Regulation & Governance* 16 (1): 102–18.
- BENNETT, JANE. 2005. "The Agency of Assemblages and the North American Blackout." *Public Culture* 17 (3): 445–66.
- BERNARDS, NICK, AND MALCOLM CAMPBELL-VERDUYN. 2019. "Understanding Technological Change in Global Finance through Infrastructures: Introduction to Review of International Political Economy Special Issue 'The Changing Technological Infrastructures of Global Finance'." *Review of International Political Economy* 26 (5): 773–89.
- BEST, JACQUELINE, AND WILLIAM WALTERS. 2013. "'Actor–Network Theory' and International Relationality: Lost (and Found) in Translation: Introduction." *International Political Sociology* 7 (3): 332–34.
- BRAUN, BRUCE, AND SARAH J. WHATMORE, eds. 2010. *Political Matter: Technoscience, Democracy, and Public Life*. Minneapolis, MN: University of Minnesota Press.
- CAMPBELL-VERDUYN, MALCOLM, AND FRANCESCO GIUMELLI. 2022. "Enfolding into Exclusion: African Blockchain and Decolonial Ambitions in an Evolving Finance/Security Infrastructure." *Journal of Cultural Economy*. <https://doi.org/10.1080/17530350.2022.2028655>.
- CHALFIN, BRENDA (2017) "'Wastelandia': Infrastructure and the Commonwealth of Waste in Urban Ghana." *Ethnos* 82 (4): 648–71.
- COLLIER, STEPHEN J. 2011. *Post-Soviet Social: Neoliberalism, Social Modernity, Biopolitics*. Princeton, NJ: Princeton University Press.
- COOK, SAMANTHA, AND KIMMO SORAMÄKI. 2014. "The Global Network of Payment Flows." *SWIFT Working Paper*, The SWIFT Institute.
- COOLEY, ALEXANDER, AND DANIEL H. NEXON. 2020. "How Hegemony Ends the Unraveling of American Power." *Foreign Affairs* 99 (4): 143–56.
- DE GOEDE, MARIEKE. 2012. *Speculative Security: The Politics of Pursuing Terrorist Monies*. Minneapolis, MN: University of Minnesota Press.
- . 2020. "Finance/Security Infrastructures." *Review of International Political Economy* 28 (2): 351–68.
- DÖRRY, SABINE, GARY ROBINSON, AND BEN DERUDDER. 2018. "There is No Alternative: SWIFT as Infrastructure Intermediary in Global Financial Markets." *Financial Geography Working Paper Series, No. 22*.
- DREZNER, DANIEL W. 2015. "Targeted Sanctions in a World of Global Finance." *International Interactions* 41 (4): 755–64.
- . 2019. "Counter-Hegemonic Strategies in the Global Economy." *Security Studies* 28 (3): 505–31.
- EASTERLING, KELLER. 2016. *Extrastatecraft: The Power of Infrastructure Space*. London: Verso.
- EAVIS, PETER. 2018. "Important European Financial Firm Bows to Trump's Iran Sanctions." *New York Times*, November 5, 2018. <https://www.nytimes.com/2018/11/05/business/dealbook/swift-iran-sanctions.html>.
- EDWARDS, PAUL N., AND GABRIELLE HECHT. 2010. "History and the Technopolitics of Identity: The Case of Apartheid South Africa." *Journal of Southern African Studies* 36 (3): 619–39.
- FARRELL, HENRY, AND ABRAHAM L. NEWMAN. 2019. "Weaponized Interdependence: How Global Economic Networks Shape State Coercion." *International Security* 44 (1): 42–79.
- FARZANEGAN, MOHAMMAD REZA. 2013. "Effects of International Financial and Energy Sanctions on Iran's Informal Economy." *SAIS Review of International Affairs* 33 (1): 13–36.
- FARZANEGAN, M.R., AND B. HAYO. 2019. "Sanctions and the Shadow Economy: Empirical Evidence from Iranian Provinces." *Applied Economics Letters* 26 (6): 501–505.
- FOLKERS, ANDREAS. (2017) "Existential provisions. The technopolitics of public infrastructure." *Environment and Planning D: Society and Space* 10 (4): 855–74.
- . 2019a. "Existential Provisions: The Technopolitics of Public Infrastructure." *Environment and Planning D: Society & Space* 35 (5): 855–74.
- . 2019b. "Freezing Time, Preparing for the Future: The Stockpile as a Temporal Matter of Security." *Security Dialogue* 50 (6): 493–511.
- GERMAIN, RANDALL D. 1997. *The International Organization of Credit: States and Global Finance in the World-Economy*. Cambridge: Cambridge University Press.
- GIUMELLI, FRANCESCO, AND MICHAL ONDERCO. 2021. "States, Firms, and Security: How Private Actors Implement Sanctions, Lessons Learned from the Netherlands." *European Journal of International Security* 6 (2): 190–209.
- HELLEINER, ERIC. 2002. "The Monetary Dimensions of Colonialism: Why Did Imperial Powers Create Currency Blocks?" *Geopolitics* 7 (1): 5–30.
- . 2014. *Forgotten Foundations of Bretton Woods: International Development and the Making of the Postwar Order*. Ithaca, NY: Cornell University Press.
- . (2017) "Downsizing the Dollar in the Age of Trump? The Ambiguities of Key Currency Status." *Brown Journal of World Affairs* XXIII (II): 9–27.
- HÖNKE, JANA, AND IVAN CUESTA-FERNANDEZ. 2018. "Mobilising Security and Logistics through an African Port: A Controversies Approach to Infrastructure." *Mobilities* 13 (2): 246–60.
- HOWARTH, DAVID. 2010. "Power, Discourse, and Policy: Articulating a Hegemony Approach to Critical Policy Studies." *Critical Policy Studies* 3 (3–4): 309–35.
- JAEGER, MARK DANIEL. (2021) "Circumventing Sovereignty: Extraterritorial Sanctions Leveraging the Technologies of the Financial System." *Swiss Political Science Review* 27: 180–92.
- KEATINGE, TOM. 2020. "The New Cold War is Financial." *RUSI*, September 21, 2020. <https://rusi.org/explore-our-research/publications/commentary/the-new-cold-war-is-financial>.
- KODDENBROCK, KAI. 2020. "Hierarchical Multiplicity in the International Monetary System: From the Slave Trade to the Franc CFA in West Africa." *Globalizations* 17 (3): 516–31.
- LEIBBRANDT, GOTTFRIED, AND NATASHA DE TERÁN. 2021. *The Pay Off: How Changing the Way We Pay Changes Everything*. London: Elliott & Thompson Ltd.

- LACLAU, ERNESTO. 1990. *New Reflections on The Revolution of Our Time*. London: Verso.
- LACLAU, ERNESTO, AND CHANTAL MOUFFE. 2001. *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics*. London: Verso.
- LANGENOHL, ANDREAS. 2020. "Articulating Sovereignty within the Infrastructural Imagination: The Case of the Securitisation of Finance as 'Critical Infrastructure'." *Politikon* 47 (1): 4–23.
- LARKIN, BRIAN. 2013. "The Politics and Poetics of Infrastructure." *Annual Review of Anthropology* 42 (1): 327–43.
- LEONARD, MARK, AND JEREMY SHAPIRO. 2019. "Strategic Sovereignty: How Europe Can Regain the Capacity to Act." ECFR Policy Brief, June 25, 2019. <https://ecfr.eu/publication/strategic-sovereignty-how-europe-can-regain-the-capacity-to-act/>.
- MARCHART, OLIVER. 2007. *Post-Foundational Political Thought: Political Difference in Nancy, Lefort, Badiou and Laclau*. Edinburgh: Edinburgh University Press.
- MAAS, HEIKO. 2018. "Making Plans for a New World Order." *Handelsblatt*, August 22, 2018. <https://www.handelsblatt.com/23583082.html?share=mail>.
- MASTANDUNO, MICHAEL. 2019. "Partner Politics: Russia, China, and the Challenge of Extending US Hegemony after the Cold War." *Security Studies* 28 (3): 479–504.
- MAURER, B. (2012) "Payment: Forms and Functions of Value Transfer in Contemporary Society." *Cambridge Anthropology* 30 (2): 15–35.
- MCDOWELL, DANIEL. 2021. "Financial Sanctions and Political Risk in the International Currency System." *Review of International Political Economy* 28 (3): 635–61.
- MERRINO, SERENA. 2020. "Currency and Settler Colonialism: The Palestinian Case." *Review of International Political Economy* 28 (6): 1729–50.
- MOUFFE, CHANTAL. 1993. *The Return of the Political*. London: Verso.
- . 2008. *Radical Thinkers, The Return of the Political*. London: Verso.
- MUKERJI, CHANDRA. 2010. "The Territorial State as a Figured World of Power: Strategics, Logistics, and Impersonal Rule." *Sociological Theory* 28 (4): 402–24.
- MULDER, NICHOLAS. 2018. "War Finance." In *1914–1918 Online: International Encyclopedia of the First World War*, edited by Ute Daniel, Peter Gatrell, Oliver Janz, Heather Jones, Jennifer Keene, Alan Kramer and Bill Nasson. Berlin: Freie Universität Berlin.
- NÖLKE, ANDREAS. 2022. "Goeconomic Infrastructures: Building Chinese–Russian Alternatives to SWIFT." In *Capital Claims: The Political Economy of Global Finance*, edited by Benjamin Braun and Kai Koddenbrock. London: Routledge.
- NOLTE, AMINA. 2016. "Political Infrastructure and the Politics of Infrastructure: The Jerusalem Light Rail." *City* 20 (3): 441–54.
- NOLTE, AMINA, AND CAROLA WESTERMEIER. 2020. "Between Public and Private: The Co-Production of Infrastructural Security." *Politikon* 47 (1): 62–80.
- NORRLOF, CARLA. 2014. "Dollar Hegemony: A Power Analysis." *Review of International Political Economy* 21 (5): 1042–70.
- NORRLOF, CARLA, PAUL POAST, BENJAMIN J. COHEN, SABREENA CROTEAU, AASHNA KHANNA, DANIEL MCDOWELL, HONGYING WANG, AND W. KINDRED WINECOFF. 2020. "Global Monetary Order and the Liberal Order Debate." *International Studies Perspectives* 21 (2): 109–53.
- OPITZ, SVEN, AND UTE TELLMANN. 2015. "Europe as Infrastructure: Networking the Operative Community." *South Atlantic Quarterly* 114 (1): 171–90.
- ÖZDEMİR, EZGİCAN, AND AMINA NOLTE. 2018. "Infrastructures as the Social in Action: An Interview with Ronen Shamir." *Middle East - Topics & Arguments* 10 (6): 53–58.
- PETRY, JOHANNES. 2020. "From National Marketplaces to Global Providers of Financial Infrastructures: Exchanges, Infrastructures and Structural Power in Global Finance." *New Political Economy* 26 (4): 574–97.
- PORTELA, CLARA. 2010. *European Union Sanctions and Foreign Policy: When and Why Do They Work?* London: Routledge.
- ROBINSON, GARY. 2021. "Capturing a Moving Target: Interviewing Fintech Experts via LinkedIn." *Area* 53 (4): 671–78.
- RODDIMA-TAYLOR, DAVI, AND WILLIAM W. GRIMES. 2019. "International Remittance Rails as Infrastructures: Embeddedness, Innovation and Financial Access in Developing Economies." *Review of International Political Economy* 26 (5): 839–62.
- ROSALES, ANTULIO. 2019. "Radical Rentierism: Gold Mining, Cryptocurrency and Commodity Collateralization in Venezuela." *Review of International Political Economy* 26 (6): 1311–32.
- SCHHECK, JUSTIN, AND BRADLEY HOPE. 2019. "The Dollar Underpins American Power. Rivals Are Building Workarounds. Iran Sanctions Spur Europe and India to Devise Systems to Trade with Tehran without Using the U.S. Currency." *The Wall Street Journal*, May 30, 2019.
- SCHOUTEN, PEER, FINN STEPPUTAT, AND JAN BACHMANN. 2019. "States of Circulation: Logistics Off the Beaten Path." *Environment and Planning D: Society and Space* 37 (5): 779–93.
- SCOTT, SUSAN V., AND MARKOS ZACHARIADIS. 2014. *The Society for Worldwide Interbank Financial Telecommunication (SWIFT): Cooperative Governance for Network Innovation, Standards, and Community*. London: Routledge.
- SHAGINA, MARIA. 2021. "How Disastrous Would Disconnection from SWIFT Be for Russia?" Carnegie Moscow Center, May 28, 2021. <https://carnegiemoscow.org/commentary/84634.>>
- SLATER, DAVID. 2004. *Geopolitics and the Post-Colonial: Rethinking North–South Relations*. Malden, MA: Blackwell Publishing.
- SETH, SANJAY. 2013. "Introduction." In *Postcolonial Theory and International Relations: A Critical Introduction*, edited by Sanjay Seth, 15–31. London: Routledge.
- STAR, SUSAN L. 1999. "The Ethnography of Infrastructure." *American Behavioral Scientist* 43 (3): 377–91.
- TANSEL, CEMAL BURAK. 2020. "The Shape of 'Rising Powers' to Come? The Antinomies of Growth and Neoliberal Development in Turkey." *New Political Economy* 25 (5): 791–812.
- TILLEY, LISA. 2020. "Extractive Investibility in Historical Colonial Perspective: The Emerging Market and Its Antecedents in Indonesia." *Review of International Political Economy* 28 (5): 1099–1118.
- YILDIZ, EMRAH. 2020. "Nested (In)Securities: Commodity and Currency Circuits in an Iran Under Sanctions." *Cultural Anthropology* 35 (2): 218–24.