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Contents

NOTES TO CONTRIBUTORS

Papers for publication in future issues of the *IIG BUSINESS REVIEW* are welcomed. Only papers related to international business, international relations and diplomacy, international trade and cross cultural business communications will be considered with emphasis given to the practical aspect of international business.

The following topics will be addressed in future issues of the *Journal:*

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EDITORIAL

In this fifth issue of the journal, several articles were selected to cover specific subjects that were relevant to today's economic and social concerns particularly with sustainability, climate warming and the Covid-19 pandemic. The composition of the Editorial Review Board was updated to include new members to reflect the University new educational programs, its global reach as well as to improve the overall quality of the journal. The Editorial Review Board is grateful for the time and guidance extended by the faculty and administrative staff of the International Institute in Geneva for producing this issue of the IIG Business Review to coincide with the Institute 25th anniversary.

The first article is an excerpt from *Net Positive*, by Paul Polman and Andrew Winston. The authors argue that businesses should focus on long term value creation opportunities instead of concentrating on quarterly earnings and short-term profits. At Unilever, Polman abolished quarterly statements and reduced the on-going pressure from investors to implement long term sustainable partnerships with the public sector as well as with employees, business partners, NGOs and communities it serves. In the end, this strategy was successful as Unilever outperformed the FTSE Index. Unfortunately, too many firms continue to focus on short-term self-interest.

The second article deals with how the Swiss Authorities responded to the Covid-19 pandemic. In view of the economic impact the pandemic had on the economy, the Swiss government put in place a credit guaranty scheme to support the business sector. Within a short time, it integrated private banks to work in parallel with government institutions to assist businesses affected by the lockdown. Thanks to the adoption of IT tools, timely communication and political leadership, the business community was able to cope with pandemic restrictions imposed by the government. The author identifies several similarities with McKinsey's agile governance.

The third article on *Potential Erosion of US Monetary Hegemony* discusses the global power shift from American economic hegemony where the US dollar was serving the interests of the America economy to a multi power system led by the rise of China as a leading world economic player. In upcoming years, the de-dollarization process may accelerate due to the decrease of the US dollar as a trade currency, the growing role of digital currencies and the increasing impact of Chinese financial institutions. These changes are likely to have major geopolitical and geo-economics effects in the future.

The fourth paper reviews the concept on new work from its origins and transformation to today's world of globalization and digitalization. Due to the Covid-19 pandemic, the classic way of working is no longer viable, forcing companies to find new ways of working. An example is given describing how a German firm faced the challenges by transforming its workforce to a new way of working together.

The fifth article is based on the author's latest book "*Data Analytics (Can Be) Made Easy*". In this article, a classification of the homogeneous families of analytical tools, call the Analytics

Toolbox, is introduced and discussed. The article concludes with the description of a learning path, suitable also for non-technical professionals, that covers the fundamental development needs required to start leveraging the Analytics Toolbox.

The sixth article refers to a study of medium sized call centres in Morocco. This business sector is an important contributor to the economy in terms of job creation and a source of foreign currency. However, call centres suffer from a bad reputation due to poor service and customer relationship. The survey explored the relationship between communication technologies and service quality. Survey findings showed that the adaptation of new communication technologies does help but has limited impact on employees' performance, the perceived quality of service and client satisfaction.

The last paper explores the role of trade in achieving the goals laid down on the Paris Climate Agreement. Reaching the goals calls for support from international regimes. As the world intensifies its search for global solutions for climate change, far too little attention has been given in global policy-making to the relationship between climate change and international trade. According to the author, important opportunities for the trade system to contribute these opportunities have been overlooked and proposes innovative ways to move forward in the context of global governance.

The authors' own original styles and references have been kept in order to reflect their own international organizations as well as the multi-cultural mix of which IIG is not only part but also whole-heartedly it endorses.

On behalf of the Editorial Review Board, I take this opportunity to thank everyone for their contribution to the latest volume with their knowledge and expertise and precious time. In future issues, I expect the *IIG Business Review* to continue publishing practical and relevant articles in international business, international relations, data analytics and digital marketing for the benefit of the student body, faculty and the business community it serves.

The Editor

Net Positive: How Courageous Companies Thrive by Giving More Than They Take*

*Paul Polman** and Andrew Winston****

*** Paul Polman was former Unilever CEO from 2009-2019.*

**** Andrew Winston is founder of Winston Eco-Strategies.*

Operating for the Long-Term Benefit of Business and Society

Short-term thinking is enticing. It's simpler to focus solely on maximizing profit today than worry about complicated, systemic issues that take years to solve. Many investors want profits now, and the short-term focus is lucrative for executives with vested stock or nearing retirement.

Even CEOs who talk about their legacy may still go for quick wins, since tenures are getting shorter all the time—more than one-third of the largest public companies in the world had at least three CEOs in just ten years.[1] It's a long process to build a net positive company that serves society. Much of the benefit could come after the current execs leave. The companies themselves are not lasting as long either. A combination of short-term earnings focus and technology has cut the lifespan of S&P 500 companies from sixty-one years in 1958 to eighteen years (and dropping) today. The number of public companies has fallen by half since the mid-1990s.

Two other factors, both stemming from company boards, are also driving CEOs to focus on the short term. The average duration of executive compensation plans globally is a shockingly low 1.7 years. And in a survey of senior executives, boards were the top source of pressure for short-term results—above investors. It's not surprising that in this environment, business leaders focus on the near term.

We're not saying a company should ignore short-term needs for profitability or put off profits to a later date as a sacrifice to serve society now. But leaders need the freedom and opportunity to solve big challenges, which will take many quarters of hard work. You cannot tackle climate change or inequality running the rat race of quarterly reporting. The systemic thinking and deep collaboration that we need will not emerge from short-term thinking.

Creating long-term value means not shooting for the moon in a given year, but investing every year to get the compounding effects and benefits of consistency over time. During Paul's decade as CEO, Unilever achieved ten consecutive years of top- and bottom-line growth. If you can invest in factories or intellectual property that way, why not invest in collaborations and the future of humanity. A short-term focus kills value-creating opportunity. So, if you need every choice to prove out financially within a quarter, this may not be the story for you.

The Unilever Sustainable Living Plan (USLP), launched in 2010 with a ten-year horizon, has forced long-term thinking at the company. It's a tool for converting a long-term philosophy on how to run a business into action, and a road map to shift the business toward serving others.

Some executives say long-term planning is useless in a fast-changing world with sudden shocks (such as pandemics). But companies should stretch their thinking, using tools like scenario planning. The point of doing this kind of work is not to develop a detailed strategy for what the company does for ten or twenty years. Instead, think about who you are. What are your personal

[1] Kati Najipoor-Schuette and Dick Patton, "Egon Zehnder Survey: CEOs Are Too Unprepared for Leadership," *Fortune*, April 24, 2018, https://fortune.com/2018/04/24/egon-zehnder-deos-leadership/.

and corporate values that won't change? Why do you exist and how do you help build a thriving world? In short, what is your purpose?

There's growing evidence that a long-term focus pays off. A study from McKinsey Global Institute and FCLTGlobal calculated that at companies operating with a true long-term mind-set, "average revenue and earnings growth were 47% and 36% higher, respectively, and market capitalization grew faster as well." The long-term companies also increased R&D spending and rode out stressful times better.

We believe that more companies have failed because of short-termism than have tripped up because they were too visionary. The pressure to constantly outpace competitors on short-term financial metrics has driven companies to stray from what's clearly right. Well-known examples include Boeing losing its focus on safety, and Wells Fargo putting sales metrics ahead of ethics. These actions destroy trust. Companies can come back from disaster and rediscover who they are, but the brand damage is real.

Some might justify a short-term focus, ironically, because the problems seem so large. The more urgent or bigger the need becomes, the more reactive and short-term we behave. It's the fight-or-flight instinct. But as safe as it seems to stay focused on the now, it's better to run the business with a long-term perspective and a clear moral compass. It will help the company be proactive and lead the shifts that are coming instead of being victimized by them. The company will be more resilient, riding out the storm or profiting from it ... for the long haul.

Driving Shareholder Value as a Result, Not a Goal

The great Peter Drucker reportedly once said, "Profit for a company is like oxygen for a person. If you don't have enough of it, you are out of the game. But if you think your life is about breathing, you're really missing something." Years earlier, Henry Ford also commented that a business run solely for profit must die, because it has no reason to exist and, he said, "the best way to make money in business is not to think too much about making it."

It's time to wake up from our fifty-year zombielike obsession with profits. Shareholder value should be a result, not an objective. The single biggest hurdle to building a long-term company that serves the world is the relentless pressure for quarterly performance. It warps companies and the economy. Some institutional investors, such as pension funds and national sovereign funds, take a long-term view and worry about systemic risks like climate change. But the dominant influence on public companies—which ripples through every business—remains the equity investors and analysts.

These shareholders want smooth, rising earnings, and companies play games to satisfy them. With the rise of stock options as incentives for senior executives, it became even more tempting to manipulate earnings in ways both legal and shady. Stock buybacks, for example, are mostly a gimmick to boost short-term earnings and distract from the fact that you're not investing in things that will make the business more valuable.

Many investors are not your long-term friend. The average holding period of stocks has plummeted from eight years in the middle of the twentieth century to about five months in 2020. If we keep shareholders in the driver's seat, we cannot build a system that optimizes for well-being for all, which requires long-term thinking. Unfortunately, even in the face of existential long-term challenges like climate change, global companies are getting more short-term focused, not less. One major study concluded that if businesses adopted more long-term thinking, they "could earn an additional $1.5 trillion per year in returns on invested capital." That's an awful lot of shareholder value.

There's a philosophical reason to hit pause on the shareholder obsession: the markets are often completely disconnected from economic reality. During the pandemic of 2020, after a short crash, the big indexes quickly returned to all-time highs, even as the world's economy shed the equivalent of roughly 400 million full-time jobs. So, if you believe that a stock's value eventually ties to the value of future cash flows—which it's supposed to— then you don't need to pitch shareholders to buy the stock. Increase those long-term flows, and the buyers will come. And if the stock market is not connected to actual corporate performance and cash flows, then it's a casino, and why bother speaking to short-term shareholders at all.

We still have some distance to go before most companies see that shareholder return should be a result, not the sole objective. Investors still hold a dominant position in the psyche of CEOs, says Andrew Liveris, the former CEO of Dow. Unfortunately, the data backs him up. A 2019 Stanford survey of CEOs and CFOs showed that while 89 percent believe it's important to incorporate stakeholder interests in their business planning (the good news), only 5 percent said that stakeholder interests were more important than shareholder interests.

CEOs and CFOs clearly see the short-term way as the path of least resistance, but eventually it catches up with you. As Ecolab executive chairman Doug Baker told us, short-term pressure has its place in running the business, but if you focus solely on the short-term, you get what he calls "easy meetings, hard life"—that is, the investor calls are great, but you end up with bigger problems down the road.

Stopping Quarterly Reporting

The best way to step away from the short-term whirlpool is to stop talking to investors so much. Say directly, and publicly, to investors, "We're not going to report quarterly earnings or provide guidance anymore."

Paul took this big step about three weeks into his job as CEO, figuring the board couldn't fire him that quickly if it went badly. Dropping quarterly reporting was (and is) highly unusual. Most CEOs take hundreds of meetings a year with investors—that's a lot of time not managing strategy, growth, innovation, customer focus, and so on. If you don't step away from the earnings treadmill, you're a hostage to the financial market. Profit is not a purpose, but an end product. And after ten years at the helm, Paul's end product was strong, with total shareholder return of 292 percent, far outrunning the 131 percent for the FTSE index.

That performance came from pursuing the goals of the USLP, not talking to investors every ninety days. This idea did not always seem radical. Nearly forty years before Milton Friedman's profits-first manifesto, Robert Wood Johnson, the chair of Johnson & Johnson, committed to a different approach. He penned Our Credo that said his family's company should serve patients, doctors, and nurses first. Then came employees, followed by communities (in which he included protecting the environment). Last were stockholders, who would "realize a fair return."[2] Not a maximum return right away, but a fair one.

Regretfully, few companies have followed Unilever's lead in abolishing guidance and reporting, but a net positive company will. Some CEOs, while not going quite as far as Unilever, have pushed back on investors just the same. Back in 2014, Apple announced new climate change and energy goals. When investors challenged CEO Tim Cook to commit to only do climate projects that were clearly profitable, he told them if they didn't believe in climate change, then they should sell their Apple shares (which have gone up 500 percent since that meeting). Pointing out how many choices they make at Apple for reasons beyond short-term pay off, he said, "If you want me to do things only for ROI [return on investment] reasons, you should get out of this stock."

There is another path to changing this whole dynamic. We wouldn't have to work so hard to put shareholders at the back of the line if the owners of capital saw the worth in long-term value creation. The organization FCLTGlobal, or Focusing Capital on the Long Term, is working to make this shift happen. FCLT brings together multinationals such as Bloomberg, Cisco, Dow, DSM, Tata, Unilever, and Walmart . . . with major-asset owners and investors such as Barclays, BlackRock, the Carlyle Group, Fidelity, Goldman Sachs, State Street, and TPG. The organization is generating analyses that show how a longer-term focus outperforms and developing road maps and tools to help companies adopt better practices. Investors are moving in the right direction, but until most of them refocus on the long term, the best thing you can do is walk away from the quarterly profits' insanity.

[2] "Our Credo," Johnson & Johnson, accessed March 11, 2021, https://www.jnj.com/credo.

Agile Governance and Digitally Enhanced Administrative Procedures: Lessons from the Swiss COVID-19 Credit Facility

*Christian Pauletto**

Abstract

Purpose: Within only ten days of March 2020, the Swiss administration designed and implemented a loan guarantee scheme for enterprises. The implementation phase was also short: it lasted less than five months. With a total of 17 billion Swiss francs disbursed in loans and an available budget of 40 billion, this was the largest amount ever administered by the Swiss administration for a single measure. This article examines how that was possible, considering the complexity of the institutional setting and the scheme's innovative form, especially in terms of IT, including several breakthroughs for the Swiss e-administrative practice: the scheme used algorithms to verify clients' applications, a unique identification number for companies was implemented on a large scale, Swiss banks were integrated into the project's preparation and implementation, and some of their client operations were centralized on a government e-platform.

Methodology: The salient features of the process are identified through an analysis of the unfolding of operations during those ten days. The circumstances and context leading to radically new forms of public governance are also identified. Besides, an output analysis was undertaken to single out the innovative features of the deliverable. The case under consideration was short, and came unpredictably, so that no data or observations could be collected before or during the case. Accordingly, the study is by and large based on ex-post *enquiries.*

Findings: With no explicitly formalized mandates, structures, or roles, the project participants came up with an informal organization system. A clearly defined deliverable was a powerful driver of the process. Several characteristics of the project, such as efficient networks, real-time information flow, flexible roles, flat hierarchy, and swift iterative sub-processes were akin to those of "agile organizations". Tasks were performed concomitantly instead of sequentially.

Originality: Though many governments have enacted COVID-19 support facilities for companies, scholarly literature on such schemes is still in its infancy. Existing literature focusses on two directions: legal analysis and economic analysis (economic impact and costs). But a view on the administrative processes for preparing such emergency measures is rarely presented. This article aims to fill this gap: it foregrounds the relationship between governmental crisis management and the digitization of public administration processes using computer-enabled tools.

Further research: It is striking that not much is undertaken with a view to collecting and sharing the "lessons learned" from the unique experience of emergency support packages during the pandemic, including at intra-organizational level. Research could be done regarding replicability both for future emergencies and for adjusting normal-times public management practices.

** Christian Pauletto is Associate Professor, International Institute in Geneva.*

Keywords: COVID-19, credit guarantees, digitization, e-government, emergency leadership, emergency management, loans, money lending, post-COVID.

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1. Introduction

> *"Most research that is contributed resides in the computer science field and focuses on scrum and agile methodologies, however there is limited research that pays attention to the actual implementation challenges, innovative outcomes, or transformation of digital services in government."*
>
> Mergel (2016)

The above quote from Mergel (2016) was a call to pay more attention to the adoption of agility principles by government administrations. Her point was timely, and this article is an attempt to address that call.

The COVID-19 emergency was of such magnitude that all governments had to adjust their procedures and *modi operandi* in order to either be able to function under extremely short deadlines or conceptualize and design totally new types of measures. In addition, a high level of uncertainty about future epidemiological and economic developments surrounded decision-making and action by governments. While the health emergency was certainly the priority for all governments, the economic emergency was also at the top of the political agenda. All governments designed and implemented support packages for their respective economies, with amounts that were hitherto unheard of.[1]

This piece considers one such measure, namely the "COVID-19 credit with joint and several guarantee", in short "COVID credit", introduced by Switzerland in the COVID-19 credit Ordinance of 25 March 2020 (hereinafter "the Ordinance").[2] Why this one in particular? The COVID-19 emergency is a too serious one to embark into a beauty contest of the various government measures, but this measure deserves some attention as it was conceptualized in unchartered territory on two scores: policy process (Section 4) and regulatory content (Section 5). In terms of process, the measure was initiated, designed, and implemented in a manner that had never been tested before. In terms of substance as well, it displays features that are new and creative. Among the innovative aspects of process and content examined in this article, particular focus lies on the use of digital tools, or e-administration.

The purpose here is not to systematically scrutinize all aspects of the measure at stake, but to examine the features that were uncommon or new in the Swiss practice with the aim to answer the following research questions:

1. What were the distinctive features of administration in designing and implementing the Swiss emergency loan scheme?
2. What were the novel and creative elements embodied in the output that were delivered, especially in terms of IT?
3. What motives or circumstances justified the innovative aspects—under 1 and 2?
4. What conditions made their adoption possible (acceptance)?

[1] Regarding support measures designed by governments to support SME, see OECD (2020b) and OECD (2020c).

[2] Ordonnance du 25 mars 2020 sur les cautionnements solidaires liés au COVID-19 (OCaS-COVID-19), RS 951.261. Available at: <https://fedlex.data.admin.ch/filestore/fedlex.data.admin.ch/eli/cc/2020/194/20200326/fr/pdf-a/fedlex-data-admin-ch-eli-cc-2020-194-20200326-fr-pdf-a.pdf> accessed May 2020.

5. What key enablers and key factors of success can be singled out?

This should allow further questions to be addressed, such as whether there are lessons to be learned on a broader scale, respectivelly whether some elements are replicable in future crises.

In the private sector, it is sometimes hypothesized that to develop disruptive technologies or products, disruptive leadership is necessary, and vice versa: applying disruptive leadership rarely results in conventional outputs. The experience at hand tends to suggest that the same goes for governments. Novel and more agile forms of governance are often correlated with innovative features in the deliverable. Therefore, this piece examines the process and its output together.

In terms of **process**, the new methods of work among government agencies and with the private sectors were to a large extent "quasi-informal". The various instruments (organizational setting, legal act, implementation measures, IT tools, communication, etc.) were prepared concomitantly while in normal times they would to a large extent be prepared sequentially.

In terms of **output**, what stands out in the support scheme is:

- its centralization of otherwise essentially privately-based procedures for granting loans;
- its reduced number of formalities;
- the involvement of actors beyond their normal roles;
- extremely swift and user-friendly administrative procedures; and
- its flexibility.

The latter was materialized by devising two distinct measures: the "COVID-19 credit" smaller loans (Art. 3 of the Ordinance), and the "COVID-19 Plus credit" for larger loans (Art. 4 of the Ordinance);[3] while the former was subsequently complemented with the COVID-19 credit "for innovative start-up companies" (see footnote 24).In terms of digitization, what made the COVID credit facility possible was the availability of a suitable government platform (easygov.swiss),[4] and the pre-existence of an identification number for enterprises, called UID.[5] In addition, it proved necessary to introduce, for the first time in Swiss government practice, the use of algorithms so that applications could be reviewed automatically.

The term "agile" has made its way into the common language, often with unclear meaning and in unrelated contexts. However, in its original coinage, the term has a very precise definition. All in all, the *ex-post* analysis of the project's governance and organization made in this paper reveals several commonalities with the concept of agility originally coined and defined by McKinsey.[6] Concretely, all "trademarks" of McKinsey's agile organization and several "practices" thereof can clearly be detected in the project, as laid out in Table 1 below.

[3] The standard Covid-19 loans are capped at 500'000 Swiss francs for each single beneficiary. The Covid-19 Plus credits may reach a maximum of 20 million francs.
[4] The Swiss online government counter is accessible at: <https://www.easygov.swiss/easygov/#/en>.
[5] Unternehmens-Identifikationsnummer, <https://www.bfs.admin.ch/bfs/en/home/registers/enterprise-register/enterprise-identification.html> accessed May 2020.
[6] A concise summary of McKinsey's agility is available at: <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/the-five-trademarks-of-agile-organizations>.

	Trademarks	Organizational-agility practice
Strategy	North Star embodied across the project	In particular: Shared purpose and vision Sensing and seizing opportunities Flexible allocation of resources
Structure	Network of empowered teams	In particular: Clear flat structure Hands-on governance Robust communities of practice Active partnerships and ecosystem
People	Rapid decision and learning cycles	In particular: Rapid iteration Information transparency Continuous learning Action-oriented decision making
Process	Dynamic people model that ignites passion	In particular: Cohesive community Entrepreneurial drive Role mobility
Technology	Next-generation enabling technology	Evolving technology architecture, systems and tools Next-generation technology development and delivery practice

Table 1: Trademarks and selected practices of agile organizations according to McKinsey. Source: see footnote 6

Only little scholarly research has been undertaken on the Swiss COVID-facility due to its recent existence. One noteworthy ongoing research project is carried out by professors Danthine, Fahlenbrach and Morellec (2020) and focuses on the financial side of the facility. At international level, there is an overabundance of scholarly articles on many facets of the COVID-19 outbreak. Yet, academic research on COVID-related support schemes still is in its infancy. As for agility, the fact is that this approach is popular mainly in digital project management, especially in the software development field.

2. Epidemiological and economic context in February/March 2020 in Europe

A detailed and precise account of the unfolding of events is useful, particularly when analyzing an emergency response policy.

Initially the new coronavirus (nCov) reached Europe via Italy, which was the first country hit by the pandemic, and also the first one to enact a ban on flights from China,[7] as well as legal measures for domestic containment of the virus, in January 2020.[8] On 30 January 2020, the World Health Organization (WHO) declared that COVID-19 was a "global public health emergency of international concern" (Cucinotta & Vanelli, 2020). During the whole month of February 2020, governments in Europe, and particularly those in neighboring countries such as Switzerland, were carefully monitoring the developments in Italy, including the types of health responses implemented and the economic consequences. One of the most prominent measures enforced in Italy was the lockdown, the creation of "red zones", and the successive extension of such zones until entire regions were declared "red".[9, 10] The Italian authorities also quickly realized that economic and financial support measures were also inescapable.[11]

This situation was a harbinger giving governments some time to figure out what might happen when the pandemic would reach their territory, and what might be the consequences on their respective economies if typical health measures needed to respond to the virus were to be implemented.[12] Intense monitoring and debate among government representatives also took place at the WHO. Even though no concrete measures were prepared in adjacent states until the actual impacts of the pandemic on their territory were observed, the situation of Italy was discussed and analyzed, and this allowed for the anticipation of both the epidemiological and economic scenarios to come. That said, unfortunately, European states were too slow, as Prof. Panizza (2020, p. 153) rightly affirmed: "Italy's containment policies created positive spillovers for the rest of Europe. This, however, has been a mostly wasted opportunity because other European countries have been slow in reacting to the virus outbreak".

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[7] See flight ban from China dated 27 January: Circolare del Ministero della Salute, *Epidemia cinese da coronavirus nCoV: Misure urgenti a tutela della salute pubblica. Divieto di atterraggio di tutti i voli provenienti dalla Cina negli aeroporti di Ciampino, Roma Urbe, Perugia Ancona*, 27/01/2020. Available at: <http://www.normativasanitaria.it/jsp/dettaglio.jsp?id=72853>. See also epidemiological control of passengers from China dated 24 January: Circolare del Ministero della Salute, *2019 nCov: Indicazioni operative per il monitoraggio dello stato di salute dei passeggeri su voli con provenienza Cina*, 24/01/2020. Available at: <http://www.normativasanitaria.it/jsp/dettaglio.jsp?id=72851>.

[8] Among the early measures, see for instance Ordinance 630 of 3 February: Presidenza del consiglio dei ministri, dipartimento della protezione civile, Ordinanza 03 febbraio 2020, *Primi interventi urgenti di protezione civile in relazione all'emergenza relativa al rischio sanitario connesso all'insorgenza di patologie derivanti da agenti virali trasmissibili*. (Ordinanza n. 630). (20A00802), (G.U. Serie Generale, n. 32 dell'8 febbraio 2020). Available at <https://www.trovanorme.salute.gov.it/norme/dettaglioAtto?id=73082>.

[9] On 23 February 2020 the presidential decree-law n° 6 established a zoning of Italy by province according to the epidemiological situation. Presidente della Repubblica, Decreto-legge 23 febbraio 2020, n. 6, *Misure urgenti in materia di contenimento e gestione dell'emergenza epidemiologica da COVID-19*. (20G00020), (G.U. Serie Generale, n. 45 del 23 febbraio 2020). Available at: <https://www.trovanorme.salute.gov.it/norme/dettaglioAtto?id=73197>.

[10] Decree of the President of the Council of Ministers implementing the above act: Decreto del presidente del consiglio dei ministri 23 febbraio 2020, *Disposizioni attuative del decreto-legge 23 febbraio 2020, n. 6, recante misure urgenti in materia di contenimento e gestione dell'emergenza epidemiologica da COVID-19*. (20A01228), (G.U. Serie Generale, n. 45 del 23 febbraio 2020). Available at: <https://www.trovanorme.salute.gov.it/norme/dettaglioAtto?id=73196>.

[11] For example, on 24 February 2020 the Italian Ministry of Economy and Finance decided to lift tax obligations on tax subjects located in affected zones. Ministero dell'economia e delle finanze, Decreto 24 febbraio 2020, *Sospensione dei termini per l'adempimento degli obblighi tributari a favore dei contribuenti interessati dall'emergenza epidemiologica da COVID-19*. (20A01299), (G.U. Serie Generale, n. 48 del 26 febbraio 2020). Available at: <https://www.trovanorme.salute.gov.it/norme/dettaglioAtto?id=73434>.

[12] See the business pooling launched by economiesuisse, "Coronavirus: its impact on Swiss companies", 28.2.2020 <https://www.economiesuisse.ch/en/articles/coronavirus-its-impact-swiss-companies>.

Academia too quickly realized the unprecedented magnitude of the looming crisis and contributed to this policy debate.[13] The risk of a liquidity strain or cash crunch was specifically raised and analyzed (De Vito & Gómez, 2020). Scholars in Italy pointed very early to the relevance and efficiency of state-guaranteed loans, for example Schivardi (March 2020): "La terza è che vale la pena investire risorse pubbliche per salvare le imprese. Si stima che le garanzie pubbliche abbiano una leva di 1 a 14, cioè ogni euro di soldi pubblici può garantire 14 euro di prestiti alle imprese. Per coprire gli 80 miliardi dello scenario pessimistico, quindi, servirebbero meno di 6 miliardi di euro". Information on early Italian regional credit-related measures is found in OECD (2020a, mainly pp. 5-6).

3. Main milestones of the Swiss support scheme

The first health measure introduced by Switzerland in response to the COVID-19 outbreak was the Federal Ordinance of 28 February 2020. Raschèr (2020, p. 250-251) recalls that on that morning, the Federal Council (i.e. Swiss government) held an extraordinary meeting during which they banned gatherings exceeding 1,000 persons, with country-wide application and immediate entry into force.[14] For gatherings below this threshold, the ordinance adopted that day tasked the cantons (i.e. sub-federal entities) to evaluate the risk with the entities organizing the gathering.[15] In the same ordinance, the Federal Council declared that the country was in a state of "particular situation" (a softer form of state of emergency).[16] As Raschèr (2020) notes, the country quickly realized that this was just the beginning.

On 11 March 2020, the WHO classified COVID-19 as a pandemic (Cucinotta & Vanelli, 2020), and on 13 March, the Federal Council issued a new ordinance ("Ordinance 2") providing for the "Schengen" controls with entry restrictions,[17] and a reduction of the aforesaid threshold down to 100 persons.[18] From that day on, it was clear for the authorities that the situation would quickly worsen, in all aspects, including its economic impact. The Federal Council also announced some initial measures to secure credits and provide transitional liquidity to affected companies.[19] The Federal Councilor in charge of the Department of Finance (Finance Minister), Mr. Ueli Maurer, requested his experts to prepare a measure (see Section 4). On 16 March, the Federal Council declared the state of "extraordinary situation" (a form of state of emergency) through an amendment to the aforementioned "Ordinance 2".[20] The amendment was adopted on 16 March, entered into force the next day and imposed a compulsory closure

[13] See for example Jean-Pierre Danthine, an EPFL professor and the managing director of the Enterprise for Society Center (E4S), "COVID-19: Generous public financing required", 24.3.2020, online <https://actu.epfl.ch/news/covid-19-generous-public-financing-required/> accessed May 2020.

[14] Article 2(1) of the Ordinance of 28.2.2020.

[15] Article 2(2) of the Ordinance of 28.2.2020.

[16] The legal basis for the state of "particular situation" is paragraph 1 of Article 6 of the Federal Law on the fight against diseases transmissible to humans – Loi fédérale sur la lutte contre les maladies transmissibles de l'homme (Loi sur les épidémies, LEp) du 28 septembre 2012, RS 818.101. Available at: <https://www.admin.ch/opc/fr/classified-compilation/20071012/index.html> accessed May 2020.

[17] Article 3 of the Ordinance 2 of 13.3.2020.

[18] Article 6 of the Ordinance 2 of 13.3.2020.

[19] Press release of the Federal Council, "Le Conseil fédéral renforce les mesures contre le coronavirus pour protéger la santé de la population et soutient les secteurs touchés", 13.3.2020. <https://www.admin.ch/gov/fr/accueil/documentation/communiques/communiques-conseil-federal.msg-id-78437.html>.

[20] The legal basis for the ordinance of 16 March is the state of "extraordinary situation" enshrined in Article 7 of the Federal Law on the fight against diseases transmissible to humans. By using this legal basis in its ordinance, the Federal Council declares the state of extraordinary situation.

of all non-essential retail outlets and other businesses involving direct contact with or among customers.[21] The population was advised to stay at home (concept of "soft" lockdown).

At that point, experts had already started to work on Minister Maurer's instruction. However, during that period, forecasts of the pathogen's spread, of the duration of the lockdown, and of the impact on businesses were simply impossible to make, let alone the enduring question of a future resurgence of the virus. Everything was kind of open-ended: the only certainty at that moment was that the consequences on business was unpredictable, and that the measure to be taken would address a crisis of a magnitude hitherto never handled by the Swiss administration. And that was it, so to say.

At its meeting on Friday 20 March, the Federal Council agreed on the main parameters of the facility (DFF, 2020). On Sunday 22 March, the draft ordinance on the COVID-19 credit was finalized at expert level, the Federal Council adopted it at an extraordinary session on 25 March, and the whole facility entered into force and was operational on 26 March (Media Center of the Confederation, 2020). In the meantime, on 23 March, the delegation of finance of the Parliament had approved the credit (including the budget for it) (D'amelio-Favez & Manz, 2021, p. 12). Altogether, 137,850 loans were granted which added up to a total of 16,942,837,863 Swiss francs (sum of COVID-19 credits and COVID-19 Plus credits).[22] Initially, a total of 40 billion Swiss francs had been set aside for this facility (OECD, 2021b, p. 260).

On 9 April, the Federal Council made a technical but important amendment to the Ordinance, in order to introduce newly formatted forms and loan agreements. On 22 April, the Federal Council complemented the facility with a tailor-made loan guarantee for innovative start-up companies.[23] It was up and running within a fortnight.[24] On 15 May, the State Secretariat for Economic Affairs (SECO) developed a concept to counter abuses.[25]

A main step has been the *a posteriori* submission of the facility for formal parliamentary approval, as it was necessary to transpose the Ordinance into a specific law and have it approved by the Federal legislature.[26] This was necessary because the Ordinance was an emergency ordinance (*ordonnance de nécessité*) based on Article 185(3) on imminent threats to public order or internal security of the Swiss Federal Constitution, which requires the validity to be limited in time, *in casu* 6 months i.e. until 25 September 2020. At its meeting on 1 July 2020, the Federal Council opened a consultation on the draft law,[27] which was then submitted

[21] Article 6 of the Ordinance amended as of 16.3.2020.

[22] See <https://covid19.easygov.swiss> accessed May 2021.

[23] See press release of the Department of Finance of 22.4.2020, "COVID-19: Innovative start-ups to receive additional federal support". Available at: <https://www.efd.admin.ch/efd/en/home/dokumentation/nsb-news_list.msg-id-78872.html> accessed May 2020.

[24] See press release of SECO of 4.5.2020, "COVID19: liquidity support for startups up and running". Available at: <https://www.seco.admin.ch/seco/en/home/seco/nsb-news/medienmitteilungen-2020.msg-id-79006.html> accessed May 2020.

[25] See press release of SECO of 15.5.2020, "Crédits COVID-19: le plan de contrôle visant à lutter contre les abus a été adopté". Available at: <https://www.admin.ch/gov/fr/accueil/documentation/communiques.msg-id-79133.html> and <https://www.efd.admin.ch/efd/fr/home/dokumentation/nsb-news_list.msg-id-79133.html> accessed May 2020.

[26] See press release of the Federal Council, "Coronavirus: Emergency ordinance on COVID-19 credits to be incorporated into ordinary law", 1.7.2020. Available at: <https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-79683.html> accessed August 2020.

[27] See Rapport explicatif relatif à l'avant-projet de la loi fédérale sur les crédits garantis par un cautionnement solidaire à la suite du coronavirus (Loi sur les cautionnements solidaires liés au COVID-19), 1er juillet 2020. Available at: <https://www.newsd.admin.ch/newsd/message/attachments/61988.pdf> accessed May 2021.

to the Federal Assembly.[28] The law was adopted on 18 December 2020.[29] While most of the parameters of the emergency ordinance had become obsolete because they related to the criteria of eligibility and conditions for obtaining a credit, the Parliament still had the opportunity to modify remaining aspects contained in the draft law before adoption, and it did.[30] As a matter of fact, while the facility enjoyed wide support, inevitably certain political groups had diverging opinions, particularly with regards to the duration of the credit and the sanctions in case of fraud. Eventually, both parliamentary chambers agreed on an extension of the credits from five to eight years, which was a major change compared to the initial Ordinance (Article 3 of the Law).[31] Proposals to turn credits into grants, however, were rejected. As proposed by the Government in an additional modification proposal,[32] the Parliament decided to grant the Government competence to "reactivate" a similar facility in case of need, to stabilize the economy again in the future (Article 26). This shows that there was large parliamentary support for the scheme as it was initially crafted by the government, a fact that was also widely recognized by the media. Most business associations and the banking sector advocated for keeping the Federal Council's proposal as it was.[33] Academia too generally deemed the measure appropriate, but made some specific criticisms. For example, professors Danthine, Fahlenbrach and Morellec (2020) are concerned that the scheme may, in the long run, lead to the bankruptcy of many indebted companies. They proposed to turn the credits into a capital participation by the State.

For the sake of completeness, it must be added that the COVID-19 loan was just one among other measures. The Federal Council also enacted measures to support employment, and a number of sectoral support measures. However, all those measures were very well targeted and calibrated, just like the loan scheme. Like many other countries, Switzerland was poles apart from a "do whatever it takes" mood.

4. Initiation, conceptualization, and design process

4.1 Initiative and rationale

As stated, the initiator of the process leading to a state-guaranteed credit facility for SMEs was the Minister of Finance Ueli Maurer. In the context described in Sections 2 and 3, many ideas had been floated by diverse circles on how to best deal with the looming economic emergency. However, none of them turned out to be compelling. Listening to all proponents of ideas,

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[28] Message concernant la loi sur les crédits garantis par un cautionnement solidaire à la suite du coronavirus du 18 septembre 2020, FF **2020** 8165.

[29] Loi fédérale sur les crédits garantis par un cautionnement solidaire à la suite du coronavirus (Loi sur les cautionnements solidaires liés au COVID-19, LCaS-COVID-19) du 18 décembre 2020, RS 951.26. Available at: <https://fedlex.data.admin.ch/filestore/fedlex.data.admin.ch/eli/cc/2020/982/20201219/fr/pdf-a/fedlex-data-admin-ch-eli-cc-2020-982-20201219-fr-pdf-a.pdf> accessed December 2020.

[30] The parliamentary debates are available at: <https://www.parlament.ch/fr/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20200075> accessed December 2020.

[31] This extension, made against the advice of the Government, was reached with a relatively narrow majority though: 99 to 92 in the National Council (lower chamber) and then 23 to 20 in the Council of States (lower chamber).

[32] See Message relatif aux modifications de la loi COVID-19 et de la loi sur les cautionnements solidaires liés au COVID-19 du 18 novembre 2020. Available at: <https://www.newsd.admin.ch/newsd/message/attachments/63900.pdf> accessed December 2020.

[33] See for instance the position of the Swiss Bankers Association, "COVID-19-Kreditprogrammmöglichst unverändert in ordentliches Recht überführen", 21 July 2020, <https://www.swissbanking.org/de/medien/news/covid-19-kreditprogramm-moeglichst-unveraendert-in-ordentliches-recht-ueberfuehren> accessed August 2020.

Mr. Maurer's objective was to avoid SMEs being badly hurt by the lockdown and other measures. About 67 percent of the Swiss workforce is employed in SMEs, but the Finance Minister and the Federal Council were anticipating a more dramatic looming crisis as well. Drawing the lessons from the 2008 *Lehman Brothers* crisis, they wanted to prevent a full-fledged liquidity crisis with spill-over effects that would badly hurt the Swiss financial system and Swiss financial institutes.[34] Mr. Maurer was not the only Finance Minister apprehending this, which is why the target date of 25 March needs explaining. The 25 March was payday in Switzerland, where companies pay their employees' salaries. If, at that critical point in time, too many companies decided to wait and see before disbursing salaries, a *Lehman Brothers* scenario was almost predictable. This is also why, at a press conference on 20 March (see below), Mr. Maurer promised that the scheme would be in place by the next week and that loan applications would be processed "within 30 minutes" (OECD, 2021a, p. 9). He also wanted the loans to be at zero cost for the SMEs. The personal initiative and involvement of the Finance Minister in the whole process was instrumental for its success. Comparing with the 2008 financial crisis leads to a caveat in that "[t]hough September 2008 and March 2020 look similar, in that they involve a rapid collapse in stock prices and unprecedented interventions by the Federal Reserve, the most dramatic period of the GFC originated in the financial sector with the collapse of Lehman. In contrast, the COVID-19 shock originated as a public health crisis; it did not originate inside the financial sector" (Fahlenbrach et al., 2021, p. 5479).

At the very outset, the Minister tasked his own experts with the matter, concretely his two agencies having relevant competences: the State Secretariat for International Financial Matters (SIF) and the Federal Administration of Finance (AFF). The latter is the agency in charge of the state budget, and which controls the cash. The former would be suited to coordinate the cooperation with the banks. The concretization of the idea would mean creating a legal basis allowing the Ministry to invest an amount of funds for the new facility. However, it quickly became clear that having the money and a legal basis would not be enough. How could the Finance Ministry alone implement a measure that is directed at privately-owned SMEs? Hence, experts at the Finance Department asked the State Secretariat for Economic Affairs (SECO) to participate. From that point on, a sort of quasi-informal working group consisting of members of SIF, AFF and SECO took shape (in line with the "network of empowered teams" trademark of agility). Minister Maurer himself used the term "Teamwork" to describe the way in which the scheme was prepared (Kellerhals & BGS, 2021, p. V).

4.2 Conceptualization, design, and implementation process

Whereas the deliverable—a system that can grant loans within 30 minutes and a zero cost to any SME—was clear from the outset, it is noteworthy that no project organization was formally set up, not even a kind of organizational structure, nor mandates, roles, and competences clearly defined. No work procedures were defined either. There was no time for that. The people involved were only guided by and concentrating on the deliverable (in line with the "North Star" trademark of agility). At the same time, SECO released the very first economic forecasts, and the people involved understood that they could no longer think routinely or rely on standard administrative and regulatory concepts and practices. A totally new way of working and new type of output was needed. This also meant that, politically, this could not simply be decided at administration level alone. Hence, in parallel to the already ongoing work, informal

[34] For instance, on 25 March he declared that with this liquidity support to enterprises he wanted to avoid that the Swiss financial centre be infected "Den Finanzplatz nicht zu infizieren" (Media Center of the Confederation, 2020).

conversation took place with the main Swiss political parties, business associations (e.g. economiesuisse,[35] USAM/SGV[36]) and the Swiss Bankers Association (ASB)[37], who supported the endeavor. Even though it remained relatively informal, such political support was essential to proceed. This cooperation did not happen offhandedly. The Swiss Bankers Association underscored the key role of good networking and short communication lines (*gute Vernetzung und kurze Wege*) (Gasser, 2021, p. 35). Again, in line with the "network" trademark of agility.

As SECO contributed to the project with its precious experience of administering an array of schemes to SMEs, which was instrumental for the implementation of the facility, it became clear that there was still something missing to move on. Who would actually transfer the money to each SME, so to say physically? Definitely not SECO employees. Unlike other countries, the Swiss government has no way of dispatching individual checks to people or companies, let alone a credit. At that stage, the project took a new dimension once again. Swiss banks had to be involved. All banks. Each SME's bank account is with its own bank, and only banks know their clients in person. Thus, SIF negotiated with the ASB, and a small group took shape with ASB and five banks: *Banque cantonale vaudoise*, *Crédit Suisse*, *Raiffeisen*, *UBS*, and *Zürcher Kantonalbank* (Media Center of the Confederation, 25.3.2020, statement by André Helfenstein). Considering the unprecedented magnitude of the credits, which would be granted at a 0.0 percent rate of interest for COVID-19 credits and a 0.5 percent or higher for COVID-Plus loans, the Swiss National Bank also joined the process to open a special refinancing facility for eligible banks.[38]

One aspect that is specific to Switzerland is that the best structure to engineer such credit guarantee was a set of institutes called guarantee cooperatives. The history of guarantee cooperatives dates back to the difficult times of the early 20th century; there are four of them in the country, and they are very small, with 2-10 employees each. Their task is to help SMEs who otherwise would hardly obtain commercial credits to get one. In the past, they granted over 1'800 to 2'000 ongoing guarantees in a year (Vuichard, 2020).

The duration of the facility was set in Article 11 of the Ordinance and limited to 31 July 2020 (respectively 31 August for the start-up credit; *cf.* footnote 24). Thus, time was short to identify the scheme's weaknesses and undertake improvements and refinements. As the implementation challenges became clearer, it also meant that the group was going to have to step into unchartered territory. With so many diverse actors involved (banks, the four cooperatives, the State), it was essential to ensure the uniformity of the application forms used and the loan contracts to be signed, be it only to allow the central registration of the credits. 123 banking institutes would be involved in the implementation (Vuichard, 2020) with a multiple number of local bank offices. In normal circumstances, each of them is free to format their contracts as they please. This is where SECO became instrumental. It proposed to make its easygov.swiss platform available for that purpose.

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[35] See "Simple, fast and efficient: Swiss COVID-19 bridging credits for companies in need" at <https://www.economiesuisse.ch/en/articles/simple-fast-and-efficient-swiss-covid-19-bridging-credits-companies-need>.
[36] At < https://www.sgv-usam.ch/fr/>.
[37] See press release of the Swiss Bankers Association, "Coronavirus: Bund und Banken starten KMU-Kreditprogramm. Rasche Unterstützung für die Schweizer Wirtschaft", 25 March 2020, <https://www.swissbanking.org/de/medien/statements-und-medienmitteilungen/coronavirus-bund-und-banken-starten-kmu-kreditprogramm-rasche-unterstuetzung-fuer-die-schweizer-wirtschaft> accessed May 2020.
[38] See "SNB COVID-19 refinancing facility (CRF)" at <https://www.snb.ch/en/ifor/finmkt/operat/id/finmkt_crf>.

This platform is designed as a user-friendly online counter for enterprises to access public administrative services easily. The idea was that the platform could be reconfigured to host the application process for the COVID credit and the preparation of the credit agreement before it was sent over by the applicants to their banker. Doing so, every contract, whatever the bank office, would be identical, and applicants' information would be easy to centralize. However, another challenge related to having hundreds of bank outlets implementing a nation-wide measure needed to be solved. How to ensure that the same company does not apply twice? Especially with SMEs, company names are not always unambiguous. Luckily, the Federal Office of Statistics had developed and assigned a "unique" identification number to enterprises, the UID.[39] Hence, even though not all banks were using that number in their dealings with customers, SECO requested it in the COVID credit application procedure. Within the short deadline, a Swiss IT company, *ELCA*,[40] together with the Swiss Consulting firm *AWK*, did the job of programming all the needed reconfigurations and extensions of SECO's digital tools (Vuichard, 2020).

It also quickly became clear that a flood of requests for information was to be expected, which is why an information concept was created. SECO opened a hotline and mobilized dozens of its idle staff whose normal activities had temporarily ceased to exist due to COVID. By that time, all of them had already been put into home office mode, and hence had to be taught at a distance and work for the hotline from home. But this would not be enough, and SECO also hired a specialized company, *Callpoint AG*, to join forces for communication purposes (Vuichard, 2020). *Callpoint AG*, which had already worked under contract on easygov.swiss, mobilized 120 to 150 persons to serve the COVID credit hotline. To be able to deal with more technical and legal requests from companies, idle SECO staff and a private company was obviously not appropriate. The four guarantee cooperatives are the best experts in terms of guarantees, and were thus tasked with this role. Due to their small size, however, they had to outsource this to private law firms meanwhile retaining control. Some large banks also set up their own hotline for clients. All that led to a multilayered but effective information concept. Everyone knew in what circumstance they were to redirect a caller, and to what hotline.

While a massive scaling up of personnel had to take place in the four cooperatives (Vuichard, 2020), banks too had to solve bottlenecks. The hundreds of staff put on reserve were requested to process the applications and transmit them to the guarantee cooperatives, partly manually. However, after the launch of the facility, this proved to be insufficient, and the guarantee cooperatives contracted *PwC* to help (Vuichard, 2020). *PwC* employed up to 200 persons to ensure that customer information be transferred from the banks to the guarantee cooperatives' joint database quickly and accurately, manually in the very beginning. This still proved insufficient and the process had to be further digitalized. Within twenty days of the launch of the facility, the necessary extension of IT tools had been programmed by *PwC* and could be rolled out, which included necessary adjustments to the electronic form and a corresponding modification of the Ordinance.[41] This is where a fundamental innovation comes into the picture. Part of the manual work to be performed by *PwC* was to check the applications. For the first time in the Swiss e-administration practice, an algorithm was prepared to computerize the verification of applications as well as their transfer into the guarantee cooperatives' joint database. The algorithm, programmed by *PwC* under a contract with the guarantee cooperatives, checked about 25 items in the application and extracted the few ones that needed

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[39] See the above endnote.
[40] <https://www.elca.ch/en>.
[41] Annexes I and II of the amended Ordinance as of 9.4.2020.

further human examination. Concretely, the robotic process automation (RPA) of *PwC* would read the entries in the application forms, implement the controls, and upload the data onto the data banks of the guarantee cooperatives. With this, *PwC* could solve the issue of the switch from an analog basis (manually filled forms) to the digital basis. The quality of automatic reading of the forms improved over time thanks to the machine-learning component of the algorithm.

The migration of the application form processing from an analog system to a digital one illustrates an aspect of agility: learning by doing (*cf*. McKinsey's "rapid learning cycles" and "continuous learning"). Under normal administration procedures, such a transformation would be prepared in several progressive steps, such as project design, prototyping, testing, pilot phase, evaluation, and final implementation. In this case, the idea was implemented, and all improvements and adjustments discovered and fixed "on the job" as the problems arose. This administration had never tested the automatized processing of forms, but they literally learned by doing on a one-to-one scale.

4.3 Lessons learned

The COVID-19 credit system was established in about ten days. From the day the facility entered into force, almost all applicants that already had a bank account received the money within a day. Ten days would in "normal" times barely be enough to set out and agree on an organizational chart for the project, or to prepare the bidding process for sub-contracting a service to a private company. How can an administration that is used to such "normal" timeframes and bureaucratic procedures suddenly increase its efficiency exponentially while delivering successful innovative outputs?

One of the striking features of the process outlined in Section 4.2 is certainly that no procedural or organizational guidance was established. The "what" was clear but the "how" was left up to the participants, who *de facto* had a high degree of empowerment. And participants' preference was clearly to keep everything informal. In the absence of top-down requirement, an alternative could have been to agree among participants on procedural rules. This was not attempted.

There was no attempt to work on the structure of a project organization, nor to define roles and competences. Internal and external relations were established and managed according to the principles of informal networks. All in all, this came very close to McKinsey's "network of empowered teams" trademark of agility. By contrast, and unlike many "normal times" government projects, the deliverable had been clearly defined from the very outset and this acted as a powerful driver of the process (again, the North Star trademark).

Looking at how Minister Maurer's initiative was processed within the administration, it clearly meets all the criteria of the definition of a "project" according to project management theories:

- it is limited in time;
- its participants are drawn from line units;
- it generates its own costs;
- it is geared to one deliverable.

Under any standards, a project involving several government agencies, a central bank, numerous private companies, a few subcontractors, political outreach, and a high volume of money and risk, would be categorized as a so-called "complex project" and managed accordingly, as taught by project management theory. A "project charter" would be drafted and a project organization would be set up, with a formal organization chart. Mandates and competences would be established. The common "plans" would be prepared, e.g. for stakeholder management, procurement and bidding, communication, risk management, quality control, to name the main ones. Internal communication would be structured. None of that was done here.

The quasi-informal functioning of this endeavor had consequences. A major one was that in the absence of structure or procedures, information could flow virtually on an instantaneous basis, among participants and along the hierarchical ladder (in line with the "rapid decision cycles" trademark of agility and its related activities).

Real-time information flow combined with absence of formality lead to other new possibilities. For instance, the other stunning fact in the operations described above is that all components of the project were performed in parallel instead of sequentially. Arguably, without real-time internal information-sharing this would not be workable. Relevant information and, crucially, decisions, would invariably reach their addressee too late, i.e. at a time where too much of the work done would need to be redone, leading to a series of problems.

This is probably why governments first enact a legal basis and only thereafter proceed with the implementing acts. Public administrations have a tradition of thinking "concept, policy and framework first—implementation later". This is sound practice. Determining from the outset who would take care of the implementation and how is not a must, and sometimes is even unfeasible. More specifically, a regulatory project is normally split in work phases that are rolled out consecutively: the legal basis would first be drafted and adopted; then the implementing measures would be prepared and adopted; once all those details are clear the IT tools would be adapted; and finally, on that basis, the hotlines and communication to the users would be designed. However, in the case at hand, except for the fact that on Friday 20 March the Federal Council agreed on the main parameters (DFF, 2020), the Ordinance enacted on 25 March contained both the framework and the implementation details. Here, everything had to be designed in parallel and ready by the same day, on 25 March. It meant that a change somewhere required immediate adjustment elsewhere (again, the "rapid iteration" of agility). This experience may echo the concluding question raised in Mergel et al.'s (2018) literature review: "As with any emerging area of study and practice, there are a number of research questions that require exploration", in particular:

> "An open question is the extent to which agile approaches can work within traditional command-and-control structures of government. Bureaucracies in general are not designed for shared leadership or open collaboration approaches across ad hoc teams. It is unclear how a bureaucracy, often intentionally designed to move slowly and methodically, can become more agile – or what governments may need to do to move their organizational structures, […] communication structures, […] to adopt and implement agile methods. More research is needed to understand how bureaucracies can adapt or how agile approaches can be aligned with the needs of bureaucracies and their regulations".

The Swiss case tends to show that bureaucracies "can adapt" and that "can become more agile", and this paper attempts to explore how it could.

In the ten-day period, though the relevant implementing entities were approached early enough, a little time could arguably have been saved if they had been approached immediately. Given the short time-span available, every single day, every hour was precious.

Unlike normal policy processes—or sometimes, say, "political" processes—in the presence of an emergency, implementation cannot wait and even becomes the only relevant yardstick. As several speakers stated at the press conference of 25 March, announcing a policy but not being ready to implement it would be not good enough (Media Center of the Confederation, 2020). Consequently, one lesson to remember is that administrative processes driven by emergency events should waste no time in clarifying the concrete implementation modalities, even if that has to be done in an iterative manner, as demonstrated here.

As a kind of transition to the next Section, two of the features mentioned in Section 4.2 are also noteworthy. Firstly, for the reasons already mentioned, the banks could not just be mandated to contract the loans with their clients. It was crucial for the project's success that the application and contract preparation procedures be centralized. The imaginative trick for that purpose was that for a client to apply for a credit with his bank, he had to pass through a central government-administered digital platform. Given that the government, concretely SECO, had the full operational control of the platform, this allowed the process to be fine-tuned in an optimal manner, and, crucially, at any point in time. An important innovation was that the usual downloadable application form to be filled in was replaced 48 hours after initial going-live by an online "guided process" for optimal user experience resulting in the computerized generation of a contract. Some banks did open their own online application platform, but only as an entry point to SECO's easygov.swiss.

Secondly, at the outset the degree of digitalization of the administration and of the banks was not adapted to the operational challenge of the facility. In order to cope with the unprecedented flood of applications, algorithms had to be programmed and installed on the easygov.swiss platform. This constitutes a true breakthrough in Swiss e-administration practice.

The Swiss scheme was recognized as successful, both in Switzerland and internationally. The Leaders' League stated that "among the top performers have been banks in Switzerland. […] This in sharp contrast to the US, UK and Germany".[42] An OECD study (2021c, p. 9) also observed that "loans can be provided within 30 minutes", while in contrast "[t]he UK Bounce Back Loans implement by the Bank of England for instance allowed for approval of loans for existing customers within 24 to 72 hours, but with expected default ranges of between 35% and 60%" (see also NAO, 2020, p. 11). The OECD study posits that "[i]n ensuring rapid delivery, two factors appear to have been particularly important: low administrative thresholds for accessing government support and digital delivery systems". The next Section attempts to explain how such success came about.

In terms of probable default, Kellerhals & BGS (2021, p. 69) retain a hypothesis that "in the long-run" 10-20 percent of the credits might not be reimbursed under the Swiss scheme. According to SECO's own projections, the default rate is expected to lie at around 12 percent. This would mean a cost of about 2 billion francs for the public household. If it happened, it would prove that despite very light and swift granting procedures the aim of supporting only financially-sound companies and excluding shaky ones was very well met. These estimates are consistent with research by the Swiss National Bank that found that in general the support provided went to the right firms (Fuhrer, Ramelet & Tenhofen, 2020).

4.4 Key enablers and factors of success

Research question 5 of this article pertains to the prerequisites for the successful operation of the project.

[42] Leaders League, *Swiss leading the way on emergency coronavirus loans for SMEs*, 9 April 2020, <https://www.leadersleague.com/en/news/swiss-leading-the-way-on-emergency-coronavirus-loans-for-smes>.

One is that functioning networks already existed, with a critical mass of people at all levels who were already used to cooperate with each other. Project management theories stress the importance of socializing activities between participants to a newly launched project. In the case at hand, socialization was to a large extent well rooted.

Another factor was that the project faced no political opposition (political parties, banking community). If political arbitrage and negotiations had to take place, the timely implementation of the project would not have been possible.

Another key enabler of the project was the public-private deal with banks. All banks that have private local customers,[43] in total 123 institutes (Vuichard, 2020), agreed to participate, which means that they had an obligation under the Ordinance to grant the credit in principle to every customer applying for it.[44]

Last but not least, digital tools deserve the final considerations of this Section. As stated, SECO and the guarantee cooperatives were instrumental in making the facility become reality by providing the whole computerized environment needed to process, channel, and finally store the applications, as well as the public information tools supporting the scheme (hotlines). The lesson to be learned in that respect is that once a crisis has burst, it is too late to put up the necessary digital infrastructures from scratch. In this case they could be borrowed from somewhere, namely SECO's easygov.swiss platform as well as the guarantee cooperatives' joint database. In the short time-frame available, SECO and its contracting partners were agile enough to design a computerized application form including a customer-oriented guided process and link it to easygov.swiss. It was also possible to engineer the algorithmic bots needed for the computerized verification of applications. But this, although it is already a lot, is probably the maximum that could be achieved in an emergency.

Having already adopted a technology or tool or at least working on it is not only a prerequisite for government agencies involved, but also for service suppliers hired to support the roll out. The Swiss companies named in Section 4.2 were working or had previously worked with SECO in the context of those very tools. They did not need to get acquainted with them, nor to SECO's working method and corporate culture. Instead, they could immediately focus on one thing only: the deliverable—very much like other government and private stakeholders in the project (the North Star again).

5. Content of the COVID-19 Credit Ordinance and implementation modalities

If the project was agile in adapting its method of work and developing novel implementation instruments (see Section 4), it was equally agile in terms of the granted support, eligibility criteria, and other terms and conditions.

The whole scheme that was developed was user-friendly, practical, easy to explain and to understand. In one word: it was simple. One key feature of the procedure is that it requested the applicants to fill in only data and information that were strictly necessary to process the application. This was the essential factor of success of the scheme in terms of uptake and speed. Applicants were able to fill their application in record time, and formal verification could be

[43] This excludes banks with a business model focusing on specific financial services and products, or on foreign clientele, such as foreign banks established in Switzerland.

[44] However, a bank could reject an application e.g. if there were doubts as to the accuracy of the information provided (such as the annual turnover). A bank had no obligation to provide the reason for rejecting an application.

performed swiftly, even when it was done entirely manually. In a nutshell, applicants had to provide their annual turnover,[45] declare that they incurred a substantial loss due to the pandemic, state that they did not receive other COVID-related guarantees, that they were not in the process of a bankruptcy, and that they were founded before 1 March 2020 (Art. 3 of the Ordinance). The rationale for keeping a sense of focus in e-government projects is underscored in Pauletto's (2021) recommendation that "in case new technologies are introduced, they shall serve good purposes", concretely "new technologies shall serve to simplify and facilitate administrative processes, not encourage some authorities to multiply the controls and create an inflation of control items simply because it becomes possible".

Even though the term "self-declaration" is not used in the Ordinance, this is in effect what the scheme amounted to, though it must be underscored that this *de facto* self-declaration approach entails the liability of the applicant under criminal law in case of fraud. The Ordinance spelled out eligibility criteria: during the online application procedure, the applicant was required to tick those criteria individually, and if the application was complete and all criteria ticked, the bank would practically automatically subscribe to the credit contract and open the line of credit. There was no *ex-ante* material verification of the declaration made by the applicant, just a formal verification (completeness, consistency, etc.). This approach was also nick-named "lend first, check later" (OECD, 2020c).

In order to make that acceptable for banks, there needs to be a chain of automaticity. The four guarantee cooperatives mentioned in Section 4.2 automatically subscribed to each application transmitted by a bank, at a 100 percent rate for COVID credits and an 85 percent for COVID-Plus loans (Kellerhals & BGS, 2021, p. 230). And in turn, the Swiss Confederation automatically secured the guarantee cooperatives' sureties, at a 100 percent rate.

This leads to a critical remark: the facility at hand represents a shift in policy and administrative philosophy. A shift Mr. Maurer was very conscious of (Media Center of the Confederation, 2020).[46] That is to say, a deliberate departure from the zero-risk zero-error principle.

Another unique feature of the system was the involvement of the Swiss National Bank to refinance loans granted by eligible banks—again, in principle on an automatic basis. This was one of the key component of the bargain in order to strike a deal with all banks and commit them to grant loans at a 0.0 percent interest rate for COVID credits and a 0.5 percent or higher rate COVID-Plus loans, and with zero administrative fee.

The distinction between COVID-19 loans and COVID-19 Plus credits was also key, because it allowed banks to grant sizeable loans (up to 20 million Swiss francs), even to large corporations while, at the same time, sharing part of the risk.

An aspect that was very much overlooked in the literature pertains to the accounting consequences of the facility. Under any jurisdiction, if companies increase the volume of debts (liabilities) in their balance sheets, they need to increase assets, besides other possible regulatory consequences of over-indebtedness. As explained in a Concept Paper of the Federal Office of Justice (2020, p. 4), Article 24 of the Ordinance allowed companies to "set aside" the COVID-19 credit for the verification of indebtedness pursuant to Art. 725 of the Swiss Code of Obligations.

[45] Newly established firms would not have a turnover for 2019 or even 2020. To accommodate these situations, the Ordinance offered the alternative of providing the amount of salaries disbursed. But in that case, the credit would be limited to 50'000 Francs in lieu of 500'000.

[46] "Wir ziehen eine rasche Lösung vor, um das Niveau zu halten und nehmen in Kauf, dass wir allenfalls den einen oder anderen Kredit abschreiben müssen."

More details on the Swiss scheme are compiled in OECD (2020b, p. 145-147).

6. Monitoring and next steps

Two types of monitoring are in place. First, a monitoring of abuses and irregularities during the application process (Phase 1). Jakob & Godel (2021, p. 32) found that "rather few" abuses had been committed when applying for a credit. Also, after the granting of the credit only few irregularities are observed. SECO updates the data about abuse cases on the web site covid19.easygov.swiss regularly. By the end of 2021, cases sentenced for abuse have not reached 1 percent of all credits granted.

Second, the monitoring of the economic impact of the measure. What is certain is that after the enactment of the facility, the financial markets immediately ceased to speculate on a risk of liquidity crisis of the type witnessed in the aftermath of the *Lehman Brothers* crisis. Such a risk had completely evaporated. Even under potential default on loans that risk would not surface anymore.

In a study covering the period until July 2020, Eckert, Mikosch and Stotz (2020) concluded that "[o]ne reason for the currently low number of company bankruptcies might be the COVID-19 credit program of the Swiss Confederation".

Next steps will depend on the outcome of the monitoring. Furthermore, it is the evolution of company bankruptcies and financial losses in the facility that will determine further action. At some point it will also be necessary to precisely clarify the type of action to be undertaken with regards to borrowers who delay the reimbursement of their loans.

7. Replicability, or not

Now, that period is over and it is possible to look back, and the obvious question is whether anything could be replicable. Replicability was not retained among the five research questions of this paper—deliberately so. Proposing, *ex abstracto*, a yes or no view on that question would not seem very meaningful. However, a brief discussion of that question does fall within the purview of this paper. The question should be carefully framed though. Replication could mean replication in the case of a future emergency or replication in the business-as-usual operation of an administration. And in both cases, it could be replication in Switzerland or in any country.

Many of the aspects evoked in this article pertain to notions of management. And management relies on humans and organized man-made entities and will thus differ from one country to another because of different cultures, values, and customs. Management methods, techniques, or skills that prove optimal in one country may not suit another. In Switzerland for example, the style of management is quite different between the country's linguistic regions. Switzerland, a global player hosting hundreds of foreign companies, is also best placed to witness how the best CEOs transferred from their headquarter-country, or fresh foreign owners of Swiss companies, sometimes fail to meet their objectives not for lack of intrinsic competence but just for lack of adequacy with this country's management culture. New forms of administration that performed well in Switzerland in March 2020 will not necessarily suit other countries in the future.

With regards to replication in the case of a future emergency, it is a truism to state that emergency situations are never identical—if a situation were the same as one already experienced, this would hardly qualify as an emergency. Emergency does not just derive from the cost of an impact.

With regards to lessons learned to inform the "business as usual" methods of administration, some caution not to jump to hasty conclusions is probably warranted. If the positive side of the emergency was that it forced people to work more efficiently, why return to old routine after the emergency? The whole undertaking lasted about 10 days. This raises the question as to whether the same might be replicable for longer time periods. Arguably, the longer the period, the less sustainable it would be to have so many diverse entities and people working without structure and procedures. While there obviously is a time limit within which it can be sustained, the exact limit would vary from case to case.

It is striking that not much research is conducted with a view to collecting and sharing the "lessons learned" from the unique experience of emergency support packages, including at intra-organizational level. Further research should be done regarding replicability both for future emergencies and for informing normal-times public management practices. Admittedly, it may turn out that not much can be transposed one-to-one unto other contexts, given the unique circumstances of each emergency and of individual countries. Besides, management in a political environment is a different game compared to private organizations. In a government context, management entails the requisite to gather political consensus and thus political engineering and leadership become central—a dimension that is totally absent from business management.

Whatever the above caveats, if one thing does emerge from the present case study, it is that when people are adequately empowered and networked, when information is allowed to flow on a real-time basis, when there is a clear objective, leadership, a flat structure and role mobility, then organizations can work and deliver swiftly and creatively, even without the procedures and structure they are used to—or perhaps thanks to the absence thereof. Arguably, respective organizations should find their own ways—and most did so during this global emergency—but in any case, they should be prepared to radical changes in their working practices. A follow-up question is whether it is conceivable to "train" units in general administration for that purpose, just like crisis simulations are trained in emergency services such as the fire brigade.

8. Conclusions

If one finding emerges from this case study, it is that a public administration was able to deliver even without established procedures and structures, provided that its objective was clear and certain other requisites were fulfilled (*cf*. Section 4.2). Working under no specific emergency procedures or organization, and obviously ignoring standard procedures, the Swiss administration produced the requested deliverable in record time, and well. In a sense, this case shows that not having to follow a predefined "crisis organization" or "crisis plans" needs to be rated positively. Allowing for an agile-like governance probably explains in whole or in part the success of that undertaking. As a matter of fact, a closer examination of the project's governance and organization shows an amazing number of commonalities with McKinsey's concept of agility, especially the 5 "trademarks" and 23 "practices" of an agile organization.

Designed in just ten days, the package proved successful. From the very first transactions on 26 March 2020 at 8 a.m., the scheme proved to work smoothly and efficiently. Individual applications where processed and transmitted to the guarantee cooperatives within very short time, and the line of credit was opened on the applicant's bank account—sometimes within only 30 minutes. It became clear that no company would close just because of the pandemic. The feared liquidity crisis of the type witnessed in the aftermath of the 2008 *Lehman Brothers* crisis did not occur. Trust in the Swiss banking system remained intact.

The creativity unleashed in this undertaking does not only pertain to the way participants found new methods of work and interaction, but also in terms of output, there was no lack of creativity. For the first time in Swiss e-administration emergency practice, an algorithm-based bot was programmed to generate the applications and storing them in a central database. An emergency measure was implemented in a public-private partnership between banks, the Federal administration and the guarantee cooperatives. The usual downloadable application form to be filled was replaced by a customer-oriented online "guided process" resulting in the computerized generation of a contract. The unique company identification number (UID) effectively became a standard part of the client data processed by banks everywhere in Switzerland.

Granted, what was missing and might have helped was an accredited e-signature. This would allow signing contracts online, in lieu of having to print, sign and mail them.

Besides allowing the administration to operate throughout in a quasi-informal manner, other distinctive key factors of success may be identified. The various layers of implementation tasks and entities were identified rapidly during the design process. Conceptualization, framework, implementation modalities, adaptation or adoption of IT tools, and public communication were all worked out concomitantly rather than sequentially, which in turn made a rapid-iteration practice requisite. Information was free to flow on a real-time basis among project participants.

On a more practical note, a prerequisite for success was the existence of active and functioning networks. In terms of infrastructure a prerequisite was certainly that IT tools were already in use or in advanced stage of experimentation in some units of the government, which made them available to this project.

Last but not least, political leadership was key to success.

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Potential Erosion of US Monetary Hegemony: Geopolitical and Geoeconomic Perspectives

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Abstract

The US Dollar has been a key instrument of American economic hegemony since the establishment of the Bretton Woods System at the end of the Second World War. Still, the dominant international currency, the US Dollar, has been used by Washington as a key strategic tool to promote its interests. In history, major power shifts made new monetary systems emerge. The present global power shift, characterised by a transition from the US-led Western hegemony to a multipolar system, marked by the rapid rise of China, may push towards erosion of US monetary hegemony. Therefore, in the upcoming years, the "de-dollarization" process may accelerate due to factors such as the decrease in the use of the US dollar as a trade currency, the growing role of digital currencies, and the growing role of Chinese led financial organisations such as the Asian Infrastructure Investment Bank (AIIB). These potential shifts of financial power are likely to create major geopolitical and geoeconomical effects in the upcoming decades.

Keywords: Finance, monetary hegemony, power, geopolitics, geoeconomics, economic warfare

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The increasing power rivalries between the United States and China influence many domains, from politics and diplomacy to military, economic and technological fields. Finance plays an important role in the competition for global leadership in the 21st century's international system between these two powers.

Potential erosion of the monetary hegemony of the United States and the decrease of the international role of the US dollar would considerably impact the geopolitical and geoeconomic power position of the USA and would accelerate the current global power shift. It is important to recall that in history, major power shifts made new monetary systems emerge. It is foreseeable that the present global power shift, characterised by a transition from the US-led Western hegemony to a multipolar system and marked by the rapid rise of China, will lead towards the erosion of the US monetary hegemony. Indeed, many signs suggest that in the upcoming years the "de-dollarization" process may accelerate due to factors such as a decrease of the use of the US dollar as the main currency of international trade and primary reference currency of foreign exchange reserves, the growing role of digital currencies, the stronger role of alternative financial institutions to the Bretton Woods System, and the economic impact of the Covid 19 pandemic, among others. Such shifts of financial power are likely to create major geopolitical and geoeconomic impacts in the upcoming decades.

Looking back in history, finance has always played an important strategic role. The Republic of Venice, despite its small geographic configuration, became a considerable trading power for several centuries thanks to its alliance-building strategy combined to effective diplomacy, mastery of advanced technologies in shipbuilding, economic espionage, and a well-developed financial sector. The famous quote, *L'argent c'est le nerf de la guerre* (Money is the nerve of war) highlights the importance of financial power, which has created potential for states and empires to wage wars throughout history.

Financial warfare is an important element of economic warfare and is carried out through the exploitation of an adversary's financial vulnerabilities. Blocking international financial transactions, manipulating the stock market of a given state, creating a massive withdrawal of capital from a country's economy, applying currency exchange manipulations, and gaining control over strategic sectors of an economy by a foreign power using financial means, are some examples of financial warfare. In the immediate aftermath of Japan's invasion of Southern Indochina in July 1941, and well before the Pearl Harbour attack, a US financial embargo was implemented against Japan in tandem with an oil embargo.[1]

Monetary hegemony refers to the capacity of a given state to influence monetary conditions globally and exercise superior leverage over the functions of the international monetary system. The currency of the geopolitically dominant state (hegemonic power) becomes the international reserve currency and the currency used by most states in different financial transactions and in international trade. International currency magnifies the global might of the issuing country,

[1] Miller S. E. Bankrupting the Enemy The US Financial Siege of Japan Before Pearl Harbour, Naval Institute Press, Annapolis, 2007.

due to its power to influence the flow of investments and credits and to eventually use this currency power for geopolitical coercion in economic and financial warfare.[2]

Geopolitically dominant powers gained predominance in world trade and defined the structure of the international monetary order. For instance, by virtue of superior naval military power, such maritime powers as the Netherlands after the Thirty Years' War (1648), Britain after the Napoleonic Wars (1815), and the United States after the World War II (1945) shaped the rules and norms of the international economy, including the international monetary system. Indeed, the international financial institutions of the Bretton Woods System grew out of U.S. dominance after World War II.

The main instruments of US monetary hegemony after the Second World War were first created within the framework of Bretton Woods system. The three main pillars were the International Monetary Fund (IMF), the World Bank, and the US Dollar that became the dominant international currency after 1945. It is interesting to note that the project of the creation of supranational currency—the Bancor, conceptualized by British economist John Maynard Keynes and proposed by the United Kingdom after World War II— was rejected by the United States.

During the post-Second World War period, the US dollar had convertibility to gold thus providing a certain stability in the international monetary system of the time. This stability eroded when the US dollar convertibility to gold was ended in 1971 by the Administration of President Nixon who refused to deliver gold in exchange for dollars, as had been agreed when the Bretton Woods framework was forged through multilateral negotiations. At the G-10 Rome meetings held in 1971, Nixon's treasury secretary John Connally proclaimed, "The dollar is our currency, but it's your problem." The US Dollar became a FIAT currency, not backed by a physical commodity, such as gold or silver, but rather by the US government that issued it.

The US dollar as a FIAT currency provided the Federal Reserve greater influence over the US economy because more money could be printed, and thus policies of quantitative easing, by increasing money supply, could be implemented. The US national debt started to rise with the Vietnam war but the fact that the US dollar remained the dominant international currency helped the US finance its debt. To maintain its domination over the global financial system, Washington implemented the Petrodollar strategy which resulted in other countries being forced to buy dollars in order to get oil on the international market.

The Petrodollar system has played an important role in the American strategy to maintain the US dollar as the main international currency after the end of its convertibility to gold in 1971. The 1973 oil crisis further impacted the position of the US dollar by leading Saudi Arabia and the OPEC countries to make an agreement with Washington. This agreement provided that in exchange for Washington's political and military protection, the OPEC countries would sell oil only in dollars. The Petrodollar became the replacement for the gold-linked standard that

[2] Trabanco, José Miguel Alonso (2018). Hacia un Analisis Integral de Creciente Interseccion entre Geopolitica y Financas como Factor en la Reconfiguracion del Balance Global de Poder en el Siglo XXI et Implicaciones Previsible para México, Master Thesis, Instituto Ortega-Vasconcelos de Mexico.

existed prior to Nixon's presidency. Once this system was supported by OPEC members, the global demand for US Petrodollars hit an all-time high. Among several examples, it must be noted that Petrodollar factors played an important role in the 2003 US led invasion of Iraq and the 2011 regime change operation in Libya, as these two countries intended to drop the sale of their oil for US dollars.

Another instrument of American monetary hegemony is the US influence over the Society for Worldwide Interbank Financial Telecommunication system (SWIFT). SWITF was founded in 1973 and based in Belgium. It is an international, interbank network for transmitting information about payment transactions. Over 9,000 banks worldwide are members of SWIFT. Every year, an estimated 2.5 billion payment orders are transmitted through the SWIFT network, which processes billions of dollars daily. SWIFT's advantages are its speed, low cost, and reliable data protection. As a result, most of the world's international settlements and payments go through the SWIFT system. SWIFT is important tool for the United States to enforce its sanctions policies within the framework of US extra-territorial jurisdiction. The use of the Foreign Corrupt Practices Act (FCPA) with the implication of the Department of Justice (DOJ), the Office of Foreign Assets Control (OFAC), are important constituents of US economic and commercial sanctions against foreign entities, including state and non-state actors. In the economic and financial sectors, many French and European companies have paid substantial fines relating to violations of American anti-corruption laws or of the American system of international sanctions, which took place outside American territory. For instance, within a few years, the fines paid by European companies totalled over 20 billion dollars. Certain recent examples illustrate this perfectly: the almost 9 billion dollar fine paid by the BNP Paribas for the violation of American international sanctions; the 772 million dollar fine paid by rolling stock manufacturer and energy company Alstom for the violation of American anticorruption legislation; and 398 million dollar fine paid by the French energy company Total for the violation of American anticorruption legislation.[3]

Although the US dollar represents about two thirds of currency reserves at the global level, and this currency remains the most widely used in international transactions, there are several indicators of a potential de-dollarization process. Some of the factors that may impact this gradual erosion of the position of the US dollar and US monetary hegemony are briefly exposed in the following sections. In this context, the first influencing factors are the failure of neo-liberalism and financial capitalism.[4] Contrary to a state-regulated capitalist system that had contributed the growth of the "real economy" (industries, infrastructure, etc.) between 1945 and 1980, the financialization of Western economies, and in particular that of US, has led to the creation of massive speculative artificial financial wealth. This process began in the 1980s

[3] Fact-finding Mission On the Extra-territoriality of American Law, Foreign Affairs Committee Finance, General Economy and Budgetary Monitoring Committee of the French Parliament, Report of October 2016, https://www2.assemblee-nationale.fr/static/14/missions_info/extraterritorialite/summary.pdf (accessed: 10.05.2021)

[4] On this subject, the analysis of US economist Michael Hudson is very relevant. Hudson M. J is For Junk Economics: A Guide to Reality in an Age of Deception, ISLET, Dresden, 2017. Hudson M. The Bubble and Beyond, ISLET, Dresden, 2012.

with the massive deregulation of the economy and financial sectors under the Thatcher government in Great Britain and the Reagan administration in the US.

Deregulation of financial markets favored speculative activities. The neo-liberal ideology—key element of the globalization of financial capitalism—advocated a high degree of deregulation, rapidly opening the domestic economy to international exchanges and investments, the privatization of most sectors of the economy, and the limitation of the public sector. The neo-liberal model failed in several countries such as Argentina, with its economic depression taking place between 1998 and 2002, or the devastating consequences of the Russian "shock therapy" in the 1990s.[5] The result of neo-liberalism and financial capitalism was not only the deindustrialization and the erosion of economic statecraft, but also a growing concentration of wealth in the hands of a small wealthy elite, while middle classes have considerably shrunk, and poverty has generally increased. This process has also impacted the increasing influence of populist parties in different countries.

The 2008 financial crisis illustrated the vulnerabilities of US led financial capitalism; this crisis was the consequence of the financialization of the economy combined with the creation of massive fictitious financial wealth within the context of an unregulated financial system favoring speculative activities. This crisis highlighted the fragility of the US led international monetary system and led to a reconsideration of gold as the element of stability and monetary power. Since the first half of 2010s, central banks around the world have turned from being net sellers of gold to net buyers of gold. In 2015 for instance, central banks added 483 tons—the second largest annual total since the end of the gold standard—with Russia and China accounting for most of the activity. The hypothesis of the introduction of a new gold standard in the upcoming years shouldn't be excluded, especially in the case of a collapse of the US dollar and the meltdown of the international monetary system.[6]

As it was mentioned earlier, the evolution of the balance of power in the International System has always impacted shifts in monetary hegemony. The current global power shift is characterized by the relative decline of the Euro-Atlantic region, while the Asia-Pacific zone has become the centre of gravity of global geopolitics and geoeconomics. The current global power shift is mainly economic. The US remains the most important military power with the highest military spending in the world, reaching 778 billion US dollars in 2020, which accounted for 39 per cent of total military expenditure that year, according to the Stockholm International Peace Research Institute. Regarding the economic aspects of the global power shift, it is important to mention that comparing the GDP on a Purchasing Power Parity (PPP) basis, China has had a bigger economy than the US since 2014. Projections for 2050 indicate the dominant share of Asian countries of the world economy will be as follows: China will be the leading economic player, India the second, Indonesia the fourth and Japan will be in the fifth position. The US will be the third largest economy and none of the European countries

[5] Csurgai Gy. Geopolitics, Geostrategy and Geoeconomics: Reflections on the Changing Force Factors in the International System, published in Russian in the Journal, ЭКОНОМИЧЕСКИЕ СТРАТЕГИИ, «Economic Strategies», N°3, 2020, Moscow

[6] Rickards J. The New Case for Gold, Penguin, UK, USA, 2016. Lips F. Gold Wars, Fame, New York, 2001

will be in the five most important economies on a global scale. Concerning the population factor, it is important to mention that the population of Asia is already about four times bigger than the combined population of the North America and Europe. The Covid-19 pandemic may accelerate the major trends of the global power shift as China's economy restarted with strong economic growth at the end of 2020 while, Western countries accumulated important sovereign debts in 2020 and early 2021 and face a rather difficult transition towards economic growth

In this current global power shift, one key element is the strategic use of financial instruments by China and other powers involved in the re-definition of geopolitical spheres of influence. The re-emergence of Asia as the centre of gravity of the world economy, and the connection of the major land powers of Eurasia, China, Russia and Continental Europe led by Germany, within the framework of the new Silk Road, the BRI (Belt and Road Initiative), may offer an alternative to US-led financial globalization and neo-liberalism. The BRI investments, for instance, put more emphasis on the real economy, via infrastructure development and industrial production, rather than financial capitalism's speculative bubbles.[7] The geofinancial significance of the BRI derives from the fact that more than half of the world economy will be taken out of the US dollar dominated trade and economic relations.

In November 2020, 15 countries formed the world's largest trading bloc, the Regional Comprehensive Economic Partnership (RCEP). This bloc is made up of 10 Southeast Asian countries, as well as South Korea, China, Japan, Australia and New Zealand. The members make up nearly a third of the world's population and account for 29 percent of global GDP. The RCEP can offer China and its partners another possibility to influence the de-dollarization process as trade and financial transactions can be conducted in other currencies than the US dollar in the largest trade bloc of the world.

Another relevant indicator of the likely erosion of US monetary hegemony is the emergence of new Chinese-led, alternative financial institutions to the Bretton Wood system such as: the Asian Infrastructure Investment Bank (AIIB), BRICS Development Bank, which is called at present New Development Bank, and the Silk Road Fund.

AIIB is a multilateral development bank with an initial capital of US$ 100 billion. The Bank seeks to provide finance to infrastructure projects in Asia. AIIB began operations in 2016 with 57 founding members (37 regional and 20 non-regional). It is interesting to note that while Great Britain left the European Union, it joined AIIB. By the end of 2020, AIIB had 103 approved members representing approximately 79 percent of the global population and 65 percent of global GDP. AIIB can be considered as a rival for the IMF, the World Bank and the Asian Development Bank (ADB). From the Chinese perspective, the AIIB (Asian Infrastructure Investment Bank), the Silk Road Fund and other Chinese-led financial institutions achieve important strategic objectives. Firstly, they provide developing countries a source of development financing that is not under the dominance and tutelage of the Bretton Woods institutions with their lending conditionality and their one-sided governing

[7] Lambert A. Geopolitics of China's New Silk Road; Return of Geography and Reset of the Historical Clock, Aracne, Rome, 2021

mechanisms. Secondly, China will be the key source of capital for these new institutions, which from a geopolitical perspective extends China's influence amongst developing countries. Thirdly, these new development institutions will be an important counterbalance to the political weight of the US and give China a greater power in global finance.

It is also important to remember the geopolitical and geoeconomic considerations of States that contest the "weaponization" of the US dollar by Washington with the application of US extraterritorial jurisdiction, sanction policies, and anti-corruption laws in economic warfare. Not only are China, Russia, and Iran favorable to the emergence of alternative international financial transaction systems that are not US controlled or in US dollars, but various European states are as well.

Furthermore, reserve currency portfolio decisions may be influenced by foreign policy considerations and security ties. The fallout from trade tensions and international sanctions can prompt countries to consider changes in their reserve holdings. Between March and May 2018, Russia's holdings of US Treasury bonds plummeted by $81 billion, representing 84 percent of its total US debt holdings. In 2020, China made some cuts in U.S. debt holdings, but China remains the second biggest foreign holder of U.S. treasury securities in 2020. China's foreign exchange reserves represented US$ 322 trillion at the end of 2020. At the same time, the US remains on an unsustainable fiscal path, which has been exacerbated by the economic effects of the coronavirus pandemic and the legislative response to mitigate them. Debt has been at its highest level since just after World War II, and annual deficits are on an upward trajectory for the years to come. The federal government's total debt stands at $27 trillion in December 2020, according to the Treasury Department's monthly reporting.[8] The Congressional Budget Office has warned that in 2021, the federal debt may exceed the size of the entire American economy for the first time since 1946. At that same time, in 2020, the U.S. trade deficit was $678.7 billion, according to the U.S. Bureau of Economic Analysis (BEA). It is important to recall the importance of cognitive factors such as perceptions and confidence in a global reserve currency. Once confidence erodes in the geopolitical and economic capacity, financial and socio-political stability of the state conditioning monetary hegemony, other states will have less willingness to detain and use its currency.

As for the potential weakening of the Petrodollar system, the launch of the PetroYuan for oil trading, is an important indicator. On March 26 of 2018, the first trades in crude oil futures denominated in Yuan appeared on the screens of the Shanghai International Energy Exchange. China has already surpassed the United States as the largest oil importer in the world. China is also the biggest buyer of Saudi oil and biggest investor in the Middle East.

Advances in financial and payment technologies can facilitate non-US dollar transactions. China's AliPay and WeChatPay have users outside of China as well. For instance, a WeChat wallet can be opened outside China without Chinese ID or a bank account. Besides, China is on its way to becoming the world's first major country to issue a sovereign digital currency. The central bank-backed digital yuan is a digital version of the Yuan—China's national

[8] https://www.fiscal.treasury.gov/reports-statements/mts/current.html (accessed: 10.05.2021).

currency. It is backed by Yuan deposits held by China's central bank. The People's Bank of China could use its Central Bank Digital Currency (CBDC) "the Digital Yuan" to internationalize the Chinese national currency especially in the midst of the current US-China geopolitical and trade tensions.

To conclude, it can be said that the potential retreat and erosion of the US dollar as the dominant international currency would considerably impact the United States. Firstly, it would reduce the capacity of the USA to finance its growing national debt. Secondly, the US would no longer be in the same power position to enforce extra territorial jurisdiction as a means of economic warfare. Consequently, the erosion of US monetary hegemony would weaken American geoeconomic and geopolitical power. US Admiral Mike Mullen stated that the US national debt is the biggest security threat for the United States.[9] The British historian Paul Kennedy suggested in his famous book, "The Rise and Fall of the Great Powers" that dominant powers had in the past fallen because of Imperial Overstretch. According to him, Imperial Overstretch refers to situation in which an empire extends itself beyond its ability to maintain its military and economic commitments. Considering the American economic, social, ethnic, and racial co-existence issues, domestic political divisions, and the potential acceleration of the De-Dollarization process, the US may have to opt for a new grand strategy for the 21st century.

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[9] https://www.washingtontimes.com/news/2018/may/8/the-single-biggest-threat-to-national-security-is-/ (accessed: 10.05.2021)

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New Work – the New Way of Working

*Katharina Rehfeld**

Abstract

This article explores the concept of New Work, its origin, and its transformation. He looks at the principles of work and our understanding of work, from the age of manual production, through Taylorism, through the founder of the term New Work, Frithjof Bergmann, to today's world of globalization and digitization. The article points out that change is not linear and that 200 years ago elements existed that are discussed today in the context of New Work.

The article also mentions how the global Covid-19 pandemic spurred a major rethinking of work. Due to the pandemic, the classic way of working was no longer possible and even beyond Covid19 will companies be forced to find new ways of working together. The article concludes by describing the successful transformation of Otto Group, a major German mail order and e-commerce company, showing a successful transformation towards a newer way of working.

Keywords: Crafts manufacturing, taylorism, new work, Taylor's bathtub, empowerment, meaningful work.

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Introduction

Anyone who is currently dealing with the changing world of work will certainly have come across the term New Work. With around 20,4 billion results in Google search (as of August 2021), it is probably one of the most frequently used keywords in this context. New Work stands for new trends and developments that will have a lasting impact on our work and our future work and life. Closely related terms such as “the fourth industrial revolution” or “Industry 4.0” underline the extent of the change we are currently experiencing. Characterized by a range of new technologies, first and foremost the ongoing digitalization, the fourth industrial revolution or industry 4.0 is changing basically all disciplines including economies, industries, and governments. According to Klaus Schwab (2017), these changes are more significant and their ramifications more profound than in any prior period. These changes are even challenging our ideas of how we define work, how we identify with our work and how we organize work. Consequently, it leads to creating a new way of working: New Work.

Increasing globalization, digitalization, the ageing of the workforce and the resulting shortage of skilled workers are just some of the trends that are characteristic of the changing world of work (Cirillo/ Molero Zayas 2019). In addition, the COVID-19 pandemic, which the WHO (WHO 2020) officially declared a global pandemic on 11 March 2020, has certainly greatly accelerated this change, especially in terms of digitalization, as digital solutions have become not just an option but a necessity for companies: Due to the high risk of infection, many governments around the world imposed strict restrictions to prevent the spread of the virus. For millions of people, these restrictions led to either the loss of their work or at least to a change of how they used to work: Instead of commuting to the office, many people, at least those whose job allowed for it, worked remotely and often from home. Although flexible working models have long been established in most companies, many organizations have remained hesitant to fully implement flexible working schemes but have now recognized the advantages of flexible working models and are more positive about home office solutions (Boland et al 2020).

Article Outline

While in many parts of the world the situation around Covid-19 is improving, one important question remains: what will work look like once the pandemic has been under control? As this is a complex question which not easy—if at all feasible—to answer at present, this article should be understood as an informative and explanatory article that aims to discuss and therefore clarify the concept of New Work and its origin. In order to grasp the novelty of New Work, this article analyses the work situation during the age of crafts manufacturing in the early 1900, it then investigates the development of work through the influence of Taylorism, elaborates the idea and concept of New Work as it has been coined by its founder Frithjof Bergmann, and concludes by discussing the current situation companies are facing, New Work, by giving an example of a company that has successfully implemented a new way of working.

The Age of Crafts Manufacturing

Up until the early 19th century, the economy was mainly characterized by craft businesses, which later merged to manufactories. A manufactory is a production facility of craftsmen of different professions or highly specialized sub-workers of a craft whose different work processes aim to produce a common product. Manufactories replaced medieval crafts businesses and were eventually replaced by factories during industrialization. At the time of craft businesses and manufactories, infrastructure was hardly developed, and transport costs were so high that most markets had only a limited range. They were local and therefore close. The competitors could not avoid each other. This required creativity and instigated high dynamic. It was the age of crafts manufacturing which was flexible, customer-oriented, and innovative.

The Age of the Tayloristic Industry

At the beginning of the 20th century, Frederick Taylor coined the term "Taylorism". Taylor took the view that work would only be efficient if there was a clear separation between manual work and mental work. In addition to the division of labour into dispositive and executive positions, work processes were broken down into small sub-steps in order to make the work as simple and repetitive as possible. Thus, no qualifications of workers were necessary, and workers were "exchangeable" at any time. This type of work did not offer an opportunity to develop skills or to strengthen the workers' competencies. Taylorism suppressed any form of freedom (Schermuly 2019, p. 30). The tayloristic approach brought a machine and efficiency-centric industry with hierarchical and inflexible structures, suppressing flexibility, self-determination, and creativity.

New Work in the view of Frithjof H. Bergmann

The Austrian-American philosopher Frithjof H. Bergmann was a staunch opponent of the concept of Frederick Taylor and was seriously concerned about the rights of workers and the increasing unemployment resulting from automation. It was in fact Bergmann who created the term New Work which was by far more than just flexible working schemes. New Work and its concepts are based on Bergmann's research on the notion of freedom and the assumption that the work system influenced by Frederick Taylor was unhealthy, preventing innovation and creativity and actually lead to layoffs and poverty among workers.

Massive layoffs and increasing poverty were especially visible in the big industrial hubs such as the centres of the US American automobile industry in Michigan. Due to improving infrastructure and increasing automatization, General Motors (GM) in Flint (Michigan) for example, was going through massive downsizings. Bergmann and his team started a cooperation with GM and advised them to implement the following procedure: instead of making half the workforce redundant by forcing the remaining half to work overtime, everyone should keep their jobs, but only work for six months per year. In the other six months he and his team would help the workers figure out how they really wanted to make a living and to find out « what they really, really wanted». GM listened to Bergmann and the first Centre for New Work was founded in 1984.

With the help of advice and coaching in the New Work Centres, people discovered new passions and became enthusiastic about other activities and professions (Berend/Brohm-Badry 2020). In Bergman's view, New Work should offer new ways for creativity and personal development. Bergmann wanted to give everyone the opportunity to do meaningful work and to experience which kind of activities they found fulfilling through meaning and joy and which they did not. Bergmann's ultimate goals were to reach meaningfulness, self-determination, and skill development during work and thus ultimately increasing people's quality of life (Bergmann 2019).

Taylor's Bathtub

While today's increasing globalization and digitalization creates complex work structures and production processes, the concept of New Work as it is used today describes the new way of working in the global and digital age: whilst this current development offers new opportunities as well as challenges, some argue that we are moving towards a situation that already existed at the beginning of the 20th century before the rise of the Tayloristic industry. Before Taylor's influence on businesses and economies, the complexity of work and products was high too, not because of global markets and digitalization like today, but due to customization, local markets, and local trade. This phenomenon is described as Taylor's Bathtub (Steinbauer 2017).

During the age of the Tayloristic industry transport and exchange costs could be reduced thanks to technical innovation. Mass production further increased the companies' productivity and markets thanks to a clear focus on efficiency and standardization. Neither creativity nor customer-orientation was needed or required.

Today, however, many markets have reached or are reaching their global limits as they, once again, get tighter and more dynamic. Organizations are going back to flatter hierarchies or network structures. In today's digital age, information is complex and requires creativity, innovation, customer-centric thinking, and flexibility, similarly to the situation before Taylorism was introduced. Innovative talents are in demand again. Companies that continue to focus primarily on methods, processes, and efforts will eventually struggle as they waste the innovative strength and the innovative capital of their talents. Dynamic markets require higher customization, flatter hierarchies, and network structures. This is the chance and opportunity which New Work can provide us with, and which is the basis of the key idea of Bergman's understanding of New Work: New Work will offer us new ways of thinking and new ways of being creative in order to continuously develop and grow (Pflaeging 2014).

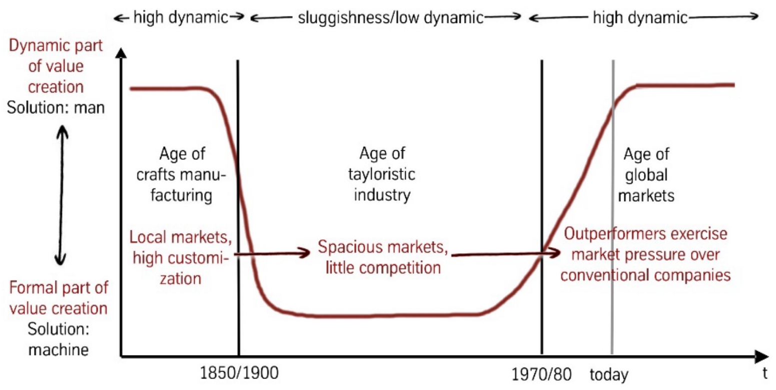

Fig. 1: Taylor's Bathtub. Source: Steinbauer 2017.

New Work Today

Like the situation Bergmann and his team were facing 30 years ago, the concept of New Work not only helps companies out of the crisis but carries them beyond it. Home office, as today's New Work concept, made it possible for people to continue working despite the pandemic. It saved many companies from another (economic) crisis and created an alternative route. An exceptional situation that made people think and rethink. Many employees are more positive about the topic of New Work today and demand it for the future. Instead of going back to pre-Covid-19 times, companies realize that they can learn from the crisis and implement new innovative working models in the future.

The concept of New Work is much more than working from home. While the latter certainly provides obvious advantages such as more flexibility, less commuting etc. studies show that people feel generally more empowered, and this has positive impact on their job satisfaction and job performance (Strenitzerová/ Achimský 2019; Davidescu et al 2020). However, social isolation, work pressure, and with them symptoms of depression and burn-out, surge. The limited interaction and communication with peers, colleagues, and customers can lead to being a feeling of social isolation which can be challenging for employees working from home regardless of their age (Lengen et al 2020). In addition, remote work blurs the boundary between work and private life. This form of "Life-Blending" makes it more difficult to disconnect from work (Messal/ Dommes/ Schwunk 2021) which might result in depression, anxiety, and burn-out.

It is certain that simply moving the work from the office into the homes of the employees would be the wrong way to proceed. Companies must establish new concepts, structures, and will even have to redefine their culture. There is probably no one-fits-all solution. Each company must deal with its own structure and culture to find a company-specific way that works well for its people.

Finding a New Way of Working at Otto Group

Otto Group for example, which was founded in 1949 and used to have a rather conservative company culture, initiated such as change as early as 2015. Otto Group was founded by Werner

Otto and grew over decades into a multi-billion dollar corporation. Today Otto Group is a global trading and service company with about 52,000 employees and a turnover of 14.3 billion euros (Otto Group a) n.d.). In order to remain competitive, Otto Group not only transformed its traditional mail-order business into an internet shopping business but also realized that the digitalization of its business model had to be backed by internal transformation and cultural change throughout the company. Empowerment, open communication as equals, close collaboration based on mutual trust became core values of Otto Group. For Petra Scharner-Wolff, Chief Financial Officer at Otto Group, two aspects are of utmost importance: first, more responsibility and less hierarchy; and second, communication instead of control and demand. "What has increased dramatically is the speed with which you have to change today. To achieve this as a company, you need new ways of working: less rigid hierarchies and more responsibility at employee level make it possible to make decisions quickly and to react to new developments (…) The new world of work needs a new understanding of leadership. The aim is not to control the employees, but to meet them on an equal level and empower them. Employees need support and freedom to recognize innovations, weigh up opportunities and risks and make decisions independently." (Otto Group b) n.d.).

Another milestone that further supported the new way of working was the creation of the company headquarters in Hamburg-Bramfeld, which reflects the concept of New Work through the creation of open-space offices (Otto Group c) n.d.) These are characterized by the so-called sharing principle, which means that every workstation is structured in the same way and employees are free to choose where they want to work to best perform their task. In a large company such as the Otto Group, different people work on different assignments and have different needs. A solution must be found for everyone. Hackl et al. stress that "anyone who thinks this is window dressing should be aware that over 50 percent of the companies that were still on the Fortune 500 list in 2000 no longer exist today (Hackl et al 2017).

Conclusion

One important lesson we can take away from Taylor's Bathtub is that change is not linear, be it the way we work, altering markets, or developing economies. High dynamics, the need for customer orientation, high quality, and high specification do characterize our world today, but they already characterized the age of crafts manufacturing. Manufacturers at the beginning of the 19th century needed to know their customers and clearly understand their needs and requirements. They needed people who were passionate, motivated, empowered, flexible, and ready to take responsibility. The Tayloristic approach of management was the complete opposite as it required standardization and efficiency. Today, we are going back to the age of flexibility and creativity. This clearly demonstrates that our understanding of work has evolved and is described by waves, cycles, and fluctuations rather than in a linear manner.

Every company must deal with its own structure and its own employees in an effort to find an individual way of implementing "New Work measures" successfully and sustainably. This often requires the courage to fail, effort, and perseverance—especially from the employees. Nevertheless, change is unstoppable, and competition requires adaptation to new values and concepts. Flexible working schemes, working in global dispersed teams, flat hierarchies, open communication, and trust rather than control, are the concepts of New Work: the new way of working in an increasingly global, dynamic, and digital world. However, the idea of New Work is not as new as one may think.

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Data Analytics (can be) Made Easy: Learning Analytics for non-Data Scientists

*Andrea De Mauro**

Abstract

The quick rise of Data Analytics has obliged companies and many individuals to rethink their development paths. Skills such as data transformation, machine learning, data visualization, and storytelling have become essentials for a broad set of professional roles, going beyond data scientists and other data-focused practitioners. However, it is hard for those who start learning analytics to select which analytics tools to learn among the overabundance of products on the market. This article presents and discusses a classification of the homogeneous families of analytical tools: the Analytics Toolbox. The article concludes with the description of a learning path, suitable also for non-technical professionals, that covers the fundamental development needs required to start leveraging the Analytics Toolbox.

Keywords: Data analytics, Business intelligence, Machine learning

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Trendy topics, like Data Analytics these days, are often prone to misinterpretation. One of the many myths I hear around Analytics is that it is a highly technical field, which can only be leveraged by dedicated technicians. Fortunately, this is not the case. Think about it: you don't need to be a mathematician to do calculations; you don't need to be a computer scientist to benefit from using computers in your everyday life. Similarly, you don't need to be a data scientist to leverage data analytics in your day-to-day business. Of course, as with everything in life, the better you are at doing something, the more value you will unlock from doing it. Still, if your role name does not have the word 'data' in it, do not worry, analytics can be an absolute goldmine for you to exploit if you learn how to do it.

Learning how to use analytics means learning how to use the tools that implement analytics methods. Unfortunately, there is no single software able to fulfil the many different needs required for data and algorithms to shine. Therefore, using Data Analytics entails learning how to use not one, but *several* tools. You can focus on a subset of the plethora of tools available out there and focus on learning them only. You want to make this selection smartly: the tools you pick should collectively cover most of your needs, ranging from data transformation and modelling to visualization and storytelling. The mixture of tools you select will then constitute your **Analytics Toolbox**. You can recognize four fundamental classes of data analytics tools, which can end up in your toolbox:

1. **Spreadsheets**: This is the simple and ubiquitous class of tools used to store and maintain small data tables in companies. Yes, we are talking about the omnipresent Microsoft Excel file (or its open-source alternative OpenOffice Calc, or a cloud-based service such as Google Sheets). These tools can be used to create, edit, and easily share tables, equipping them with formatting, formulas, and charts. Although spreadsheet software is inadequate and ineffective for creating robust and automated data workflows (refreshing even a simple report created in Excel might require manual steps and can be affected by human errors), they can be fit for use in many everyday reporting occasions and basic data crunching exercises.
2. **Business Intelligence**: These are the best-suited tools for creating interactive data dashboards and customizable reports. Tools like Microsoft PowerBI, Microstrategy, Qlikview/Qlik Sense, Tableau, and TIBCO Spotfire let you implement user-friendly data exploration apps. They are true partners in the quest of democratizing data and making it accessible to the masses. Their core focus is to provide an interface between human beings and data insights, enabling descriptive analytics at scale.
3. **Low-Code Analytics**: These tools leverage visual programming to rapidly build advanced analytics workflows without the need to write any code. Their "secret sauce" is the workflow-based user interface: by building a flowchart made of a series of data transformation steps and customizable modelling routines, you can create a fully operating analytics application in record time. Because of their intuitive interface and lack of coding requirements, tools like KNIME, RapidMiner, and Alteryx Designer can be used by both expert data professionals as well as non-

data-focused knowledge workers (looking for ways to automate their time-consuming, regular data reporting activities, going beyond the limitations of spreadsheets).

4. **Code-Based Analytics**: These tools enable you to program analytics applications using the most traditional approach: coding. Programming and scripting languages like Python, R, Scala, and SQL give you full control over your advanced analytics needs and provide a wide availability of machine learning, visualization, and statistics libraries to extend your capabilities further. Integrated Development Environments (IDEs), such as Rstudio for R and Jupyter Notebook, Visual Studio or PyCharm for Python, ease the task of writing codes and offer ways to test and debug them as needed.

Tool type (and examples)	Best suited for	Data transformation	Advanced Analytics	Data visualization	User friendliness
Spreadsheets (Excel/OpenOffice Calc)	Basic visualizations, Portability	★		★★	★★★
Business Intelligence (PowerBI/Tableau)	Interactive dashboards, Advanced visualizations	★		★★★	★★
Low-code analytics (KNIME/RapidMiner)	Ad-hoc analytics, Data automation, Fast prototyping of advanced analytics	★★★	★★	★	★★
Code-based analytics (Python Jupyter/Rstudio)	Advanced machine learning, capability scaling, real-time analytics	★★	★★★	★★	

A simple classification of analytics tools.

As you can see in the figure above, one size does not fit all: every class of tools has its own strengths, weaknesses, and specific use they are most suited for. A robust and versatile toolbox contains at least one tool in each of the four buckets. However, if you don't have the ambition to become a full-blown data professional, you can cover most of your everyday needs by learning a couple of handy and complementary tools. In *Data Analytics Made Easy*, I have selected Power BI and KNIME as I believe that together, they form an unbeatable "duo".

KNIME is a respected low-code analytics platform. It is referred to as the "Swiss Army knife" among the analytical platforms: its immediate graphical interface enables everyone to automate data pipelines (including loading, cleaning, combining, and aggregating data) and to implement machine learning algorithms without writing one line of code. Let me make this clear: tools like KNIME are not "depowered" versions of the "real thing". On the contrary, they enable full-on data science, including sophisticated data crunching and serious AI applications, like creating deep neural networks. They are just easier to utilise and offer a set of pre-built powerful routines to be reused as required. Microsoft Power BI is among the most popular data visualization and dashboarding tools. It provides a comprehensive environment to build self-service business intelligence interfaces that are omnipresent in supporting decision-making.

I've selected Power BI and KNIME also because both offer free access to their main functionalities, making them accessible even without a dedicated budget. The combination of KNIME as back-end and Power BI as front-end is adaptable and robust, empowering organizations to cover the full range of data capabilities, from descriptive to predictive and prescriptive analytics.

The learning path offered in *Data Analytics Made Easy* alternates between two tracks of content. Some chapters equip the reader with the unmissable foundations of data analytics—including the basics of statistical learning, model validation, and data visualization principles. Other chapters provide practical guidelines on how to get things done on your computer—like step-by-step tutorials on building a dashboard in Power BI or automating data crunching with KNIME. The two types of content are complementary and organized in nine chapters, according to the following structure:

Chapter 1, What is Data Analytics, paves the way for our journey together. This chapter equips with the proper terminology and provides a few frameworks (like the three types of analytics, the data technology stack, the matrix of data job roles and skills, and the data-to-value paths), offering some broader perspective on the true business potential of data and algorithms.

Chapter 2, Getting Started with KNIME, initiates the reader to KNIME and shows how visual programming works by going through a few hands-on examples. This chapter includes the first tutorial of the book, in which you can create a whole routine for automating the clean-up of some consumer-generated data.

Chapter 3, Transforming Data, introduces the data model concept and shows how to apply systematic transformations to datasets and make them entirely usable for analytics. The reader will learn how to combine tables, aggregate values, apply loops, and use variables. Finally, the tutorial shows how to build a workflow for creating some simple automated financial reports starting from raw transactional data.

Chapter 4, What is Machine Learning, separates the myth from the reality of intelligent machines, able to autonomously learn from data. This chapter gives the foundations of machine learning (like the taxonomy of available algorithms, how to validate models, and how to assess their accuracy) and lets the reader start identifying ways for AI to impact your actual work.

Chapter 5, Applying Machine Learning at Work, puts in practice what the reader learned in the former chapter. Its three practical tutorials allow experiencing what real-world machine learning is all about. The reader will feel the excitement of predicting real estate rental prices in Rome, anticipating consumers' reaction in front of a bank marketing campaign, and segmenting an online retailer's customers. The completed tutorials offer a set of "templates" of predictive machines that can then be adapted as needed to the specific business needs the reader will encounter later.

Chapter 6, Getting Started with Power BI, prepares the reader to face an ever-present, primary need: building effective dashboards that "democratize" access to data and insights. The tutorial shows how to build a fully operating management dashboard in Power BI, including preparing the underlying data model and creating interactions across charts to drive interactivity.

Chapter 7, Visualizing Data Effectively, explains how to build professional-looking data visualizations that transfer business insights. The chapter will give a framework for selecting the correct type of chart according to business needs and a set of visual design guidelines ensuring that business messages come across crisp, loud, and clear.

Chapter 8, Telling Stories with Data, trains on systematically preparing and delivering data stories that drive business action. Starting from the basic principles of persuasion, this chapter provides several techniques for making data-based points that are as compelling as possible. The chapter leaves the reader with a structured template (the Data Storytelling Canvas) to be kept handy for the time of need.

Chapter 9, Extending your Toolbox, lets readers catch a glimpse of what is beyond the tools and techniques included in the book so that they can plan for their next development steps at best. This chapter contains hands-on, guided demonstrations of Tableau, Python (including its integration with KNIME), and H2O.ai for automated machine learning. Reading this concluding chapter will prove the general value of the broad set of skills the reader will have acquired by completing the full journey.

Data analytics does not need to be complicated to become a trusted companion in our everyday work. With the right visual programming tools at hand and a good development path to follow, data analytics *can be* made easy: it is up to us to find the time to learn and the boldness to experiment it in real life!

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New Technologies to Improve Quality of Service and Client Experience of Challengers Offshore Companies

Nada Soudi and Soufiane Chraibi***

Abstract

Customer requirements and expectations are constantly evolving due to the various opportunities and possibilities offered when using new communication technologies. Multi-channel communication, artificial intelligence, and big data allow companies to adapt their proposed customer experience to constantly evolving customer behaviour, like choosing the channels of communication, the time, place, and purpose of interactions. The contact centre sector is greatly affected by these technological and behavioural developments. The industry players and adapting revolutionary approaches in their customer relationship management aim to improve their service quality and propose positive customer experience. This research emphasizes the relationship between the use of new communication technologies and the improvement in perceived service quality and client satisfaction. This study focuses on medium-sized contact centres in Morocco, a segment that we categorize as "challengers" within the industry. This category is very important for the economy in terms of job creation and as a source of foreign currency. However, it suffers from a bad reputation in terms of service quality and customer experience. Thus, the question is: could the adoption of new technologies of communication help this category of contact centres improve service quality and customer experience?

Through a field survey, the main results show that the use of new technologies have a considerable impact on certain aspects of the quality of service such as reliability and responsiveness, but has a limited effect on other aspects, such as insurance and empathy which are instead linked to professional and interpersonal skills as well as employee performance.

Keywords: Call centres, offshoring, challengers companies, customer experience, quality of service.

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Introduction

In the service field, the quality of service and customer experience are the key pillars of client satisfaction. Clients need to keep in mind that positive interaction with the company will increase their loyalty and encourage them to recommend the company.

1. Quality of service

Quality of service can be measured through a comparison of perceived quality of service and customer expectation. Improving perceived service quality can be an important competitive advantage for companies. According to Bitner M.J. (1990), quality of service is the overall impression of the superiority or inferiority of the company and the services provided. Traditionally, customers would express their appreciation of the quality of service based on the quality of the interaction with the front-end company employees where quality of service depends directly on their professional performance and communication skills. This definition suggests that quality of service is linked to human interactions during service delivery.

Nowadays, the interaction between companies and customers has evolved and taken different forms. It has gone from direct and personal interactions with company employees to digital and impersonal interactions through different media such as Interactive Voice Servers (IVS), websites, social networks, chat bots, or contact centre agents who are often external agents employed by a contact centre service provider. Customers themselves have thus become a simple record in a database. They may go through the whole purchasing process without ever interacting with any company employee. These digital impersonal interactions have been widely adopted by customers and have become a decisive factor for quality of service and customer satisfaction.

1.1. QoS Dimensions

According to Parasuraman (1985), customer perception of service quality is determined by the evaluation of the five following dimensions.

- Tangibles: The means used in terms of infrastructure, installations, communication tools, technical and hardware equipment.
- Reliability: The ability to deliver a service. To be trustworthy and respect confidentiality.
- Responsiveness: The ability to help customers find the right product or service and delivering it by the agreed deadline.
- Trust: The ability to inspire trust through a good understanding of customer needs, mastering the company’s products and services, and good communication skills.
- Empathy: The ability to provide a personalized service by giving care and individualized attention to the client.

Before interacting with the company, clients have their own expectation of what excellence should be for each of these dimensions. The gap between excellence from the customer's point of view and his judgment of the services provided in terms of the five dimensions constitute the customer perception of service quality.

1.2. Perception of Service Quality

Customer perception of the quality of interactions or services provided by the company is the difference between the perceived and expected quality. A customer experience is considered positive when the perceived service quality exceeds expectations. This is an emotional and subjective judgment derived from a client's reference system. The latter is linked to two fields: a mental field and a space-time field (Averous, 2004). The mental field is related to a structured customer beliefs and information accumulated from previous experiences (Averous, 2004). The customer's space-time field is the space and time in which the relationship or service is taking place. This field lasts as long as the psychological and/or financial effect of the service persists. (Averous, 2004). Quality of service that takes place in the space-time field is strongly influenced by the mental field that is made up of previous experiences. The service provider also evolves within a "provider system of reference" that is also made up of a mental and a space-time field (Averous, 2004). The mental field of the service provider is made up of business experience, know-how, techniques, and skills. The culture and values of the structure or company are also important. All these elements combined are deployed in the back office and front office to produce the desired service (Averous, 2004). The Provider's space-time field is the environment where the service is designed and implemented (Averous, 2004).

1.3. QoS Cycle

It is a virtuous cycle that allows continuous service quality improvement. This cycle is made up of four stages which are interrelated: each stage is impacted by the one that precedes it and impacts the following one.

The relationship between each different stage is an opportunity to improve the quality of service. The service provider may act on and influence the different stages.

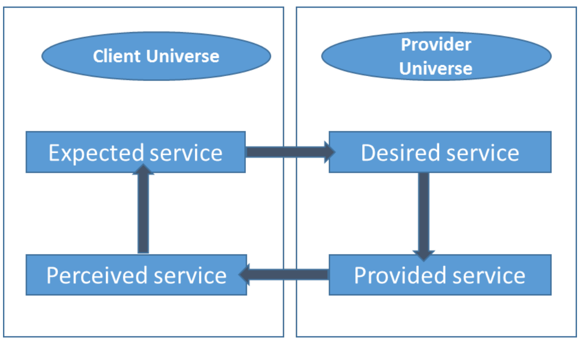

Figure 1: Quality of service Cycle: Two Universes

From the expected service to the desired service

This is a preliminary analysis that precedes the design of the desired service. A field of action where the client is placed at the centre of the provider's approach. (Averous, 2004) This is the crucial step in designing the desired service. This stage consists of three phases.

First, understanding customer expectations for the desired service in terms of reliability, speed, punctuality, confidentiality, etc., and in terms of cost (Fabien, 2015). These expectations are enriched by previous experiences, misconceptions, habits, and the social environment.

Second, defining the expected attributes considered when designing the service, taking into consideration various economical and technical production aspects such as production capacities, profitability, etc.

Third, planning a marketing campaign which consists in promoting and highlighting the expected attributes that were taken into consideration while designing the service.

This step allows to align expectations with the service provider's desired service and vice versa. In fact, customer analysis is necessary, especially in the current context, where requirements and consumer behaviour are constantly evolving.

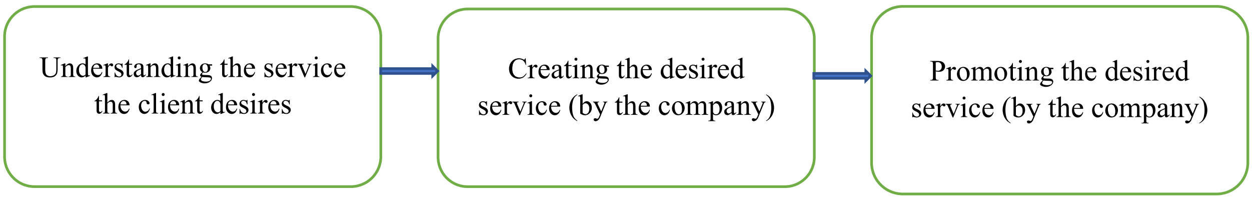

Figure 2: Stages to elaborate the desired service

From the desired service to the provided service

The provided service is the desired service after it has been confronted to the production process restraints. Between the desired service and the provided service is the stage where we assess the conformity of production which gives us the opportunity to improve the service's production processes. The purpose of this conformity assessment and process improvement is to reduce the gap between the desired and provided services (Averous, 2004).

From the provided service to the perceived service:

The perceived service is the client's subjective judgment of the provided service. The link between the provided service and the perceived service falls within the scope of communication and marketing. This communication consists of explaining the service provided to the clients in their specific language and frame of reference to make it more relevant. (Averous, 2004).

From the perceived service to desired service

The perceived service and the desired service constitute the client's reference field, experience, and evaluation. This is where customer satisfaction is assessed. The success of the previous steps leads to successful customer satisfaction and therefore a successful customer experience. (Averous, 2004). At the end of this stage, the customers become either brand ambassadors or detractors, depending on their positive or negative customer experience respectively.

1.4. Customer satisfaction, a level for economic performance

Making satisfied customers brings higher revenue for businesses and takes place at three levels:

Brand loyalty: A loyal customer continues to purchase products from the same brand, this generates steady sales and income. (Saloman, 2014)

Lower attribution rate: Customer retention is always less expensive than acquiring new customers. A lower attribution rate and loss of customers generate significant savings for the company. (Saloman, 2014)

Word of mouth: Satisfied customers become brand ambassadors. By sharing their positive customer experience, they contribute to attracting new customers which generates additional sales. (Saloman, 2014) Even if the link between customer satisfaction and economic performance is obvious, we still need more precise survey tools to measure customer satisfaction.

2. Client experience

The customer experience depends on the feelings and impressions customers have throughout their journey. It is fostered during all the interactions they have with the company. (Fabien, 2015) It includes all contact points with the company or the brand, whether before, during, or after the transaction. (Saloman, 2014) A positive customer experience is acquired when their perception of the quality of all interactions with the brand exceeds their expectations. This triggers satisfaction and appreciation that results in what we call the "WOW effect".

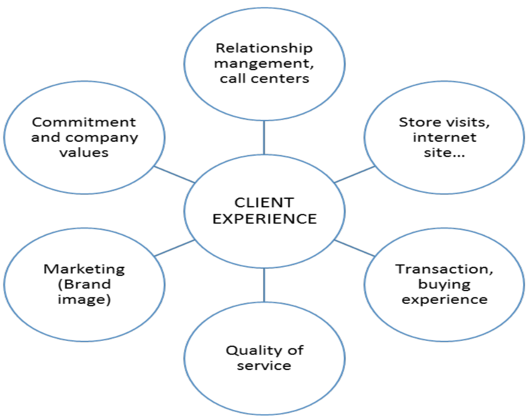

Figure 3: Client experience is in the core interactions with the brand

2.1. Client trends and expectations

Interactions with customers have evolved significantly and have taken different forms. The use of digital media has become more than a tool for competitive differentiation, it is a customer requirement. Good quality service is no longer sufficient, customers now want to live an exceptional buying experience. For 84 percent of consumers, customer experience is as important as the purchased product or service. The difficulty for companies lies in the fact that the customer experience cannot be standardized. Creativity in terms of customer journey improvements must be continuously improved. According to a Salesforce study, 73 percent of consumers confirm that an amazing customer experience increases their expectations of other companies.

2.2. Technological innovation for better client experience

Technological innovation in the service sector has historically been linked to the process of creating the delivered products. With the evolution of customer requirements and the growing importance of providing a positive customer experience, technological innovation is increasingly for interaction with customers. Competitive differentiation is now carried out at the level of customer interaction, which must be multi-channel, available anytime, anywhere, and take into consideration the context and circumstances of each customer's need.

Multi-channel interactions:

Today, customers want to choose their interaction channels with companies. For one transaction, a customer may use one or more communication media. According to a Salesforce study, 64 percent of consumers use different media during one single transaction's purchasing process (Salesforce, 2019) For instance, an online ticket purchase can first go through an online consultation of price comparison sites, then through the airline's website to obtain flight schedules, and then through the contact centre to carry out the reservation. A customer can also use additional interactions by email, SMS, or Chat (WhatsApp) to be notified of a change in flight schedule for example.

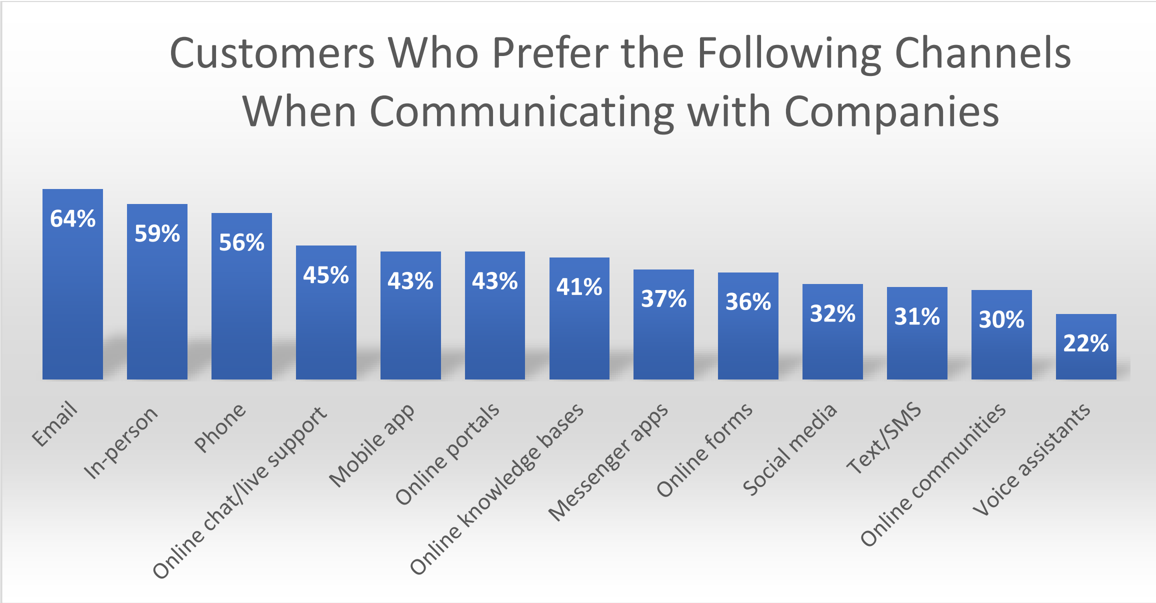

Figure 4: Preferred Channels Span Online and Offline Worlds

Artificial Intelligence: Chatbot

Chatbots are one of the major communication tools based on Artificial Intelligence. The word Chatbot is derived from the word "CHAT" and "ROBOT" referring to a "robot agent" who uses "Natural Language" to provide data or services in a text or a voice form. (Petter Bae Brandtzaeg, 2018)

In other words, the conversational nature of Chatbots allows new and potentially more personal ways to access the content or a service. It allows users to ask questions or place orders in their native language. If this technology gains the expected popularity, the Chatbot will dramatically change the methods of communication between the customer and online services. (Petter Bae Brandtzaeg, 2018)

Chatbot is used in various fields, particularly in the customer service sector. (Nordheim et al., 2019) Contact centres are important users of this technology, particularly on the "Predictive Webchat" and "IVR" tools. The Predictive Webchat allows you to predict responses to users' messages through a database of keywords without the intervention of the contact centre agents. Chatbot is also used in "Natural language" IVR and generates rather impressive results. Some transactions can be made entirely through IVR without any human interaction, particularly in the banking or service sectors that are fully accessible by IVR equipped with Natural Language, Text to Speech, and Speech to Text functionalities.

3. Research aims

The contact centre sector in Morocco is one of the five major industries that the country is trying to promote and preserve. It is an important resource of foreign currency and job creation. We can divide this sector into three categories:

- The national champions are the top 20 fully equipped in terms of latest technologies and infrastructure. This category represents 80 percent of the national market in terms of income and job creation.
- The challengers are the midsize contact centres. They are also important for the national economy since they are located in smaller cities with an important impact in terms of job creation. This category has some important weaknesses such as a poor reputation in terms of service quality. Because of limited financial resources, this category has a hard time progressing and improving its perceived service quality.
- On average, small contact centres employ less than 50 employees and have only one client.

For the purpose of this study, we chose the "challengers" category. This category is struggling to reinvent itself and faces threats that could affect its sustainability. Lacking large financial resources that would allow significant investments with which to improve working conditions, employee training, and the integration of new technologies to improve their production tools, it will be difficult or even impossible for them to position themselves in the race for customer satisfaction.

Considering this category's financial constraints, only improvements that do not require a heavy investment would be possible.

How can this category of contact centres improve perceived quality of service and possibly offer a positive customer experience?

To measure the influence of new communications technologies on the service quality perception and customer experience, we created a survey to test the following assumptions:

- **H1: The use of new communication technologies positively influences customer perception of service quality.**
- **H2: The use of new communication technologies provides a positive customer experience.**

4. Empirical methodology

Contact centres are major actors of customer relationship management. These structures, traditionally called call centres, were first created by large structures to manage phone and email exchanges. These latter were either external, with customers and suppliers, or internal to provide internal services such as technical assistance centres or information centres dedicated to employees and internal users.

When faced with the overall evolving needs of brands and companies, these centres began to introduce new activities, particularly those related to marketing, sales and after-sales services, especially operations in: telemarketing, telesales, data collection, customer support, technical assistance, etc. As these centres grow and accumulate experience and know-how, they become increasingly essential for the management of brand customer interactions.

4.1. Call centres in Morocco

For better competitiveness, towards the end of the 90s, some outsourcers of customer relations, essentially on the French market, began to test relocating their production to French-speaking countries, with available French speaking skilled human resources at attractive costs. Among these destinations we have Eastern European countries such as Romania and Bulgaria, African countries like Senegal, Madagascar, and Mauritius, and finally North African countries, especially Tunisia and Morocco. Indeed, several companies specialised in contact centre services have been created in Morocco since the early 2000s. Those companies were mostly addressing foreign markets especially in Europe and North America. To follow this emergence, Moroccan governments understood the economic importance in terms of foreign investment and job creation of this new industry and took several measures:

- Investment aid: By granting an investment bonus and contributing to employee training costs.
- Fiscal initiatives: The government granted many tax exemptions to this sector in terms of income tax and corporate tax.
- Real estate: The creation of real estate offers corresponding to international standards through several "offshore zones" fully equipped with technical infrastructures.
- Improvement of the business climate with the simplification of administrative procedures and the establishment of appropriate telecommunications infrastructure.

Economic and social impact:

According to the Minister of Industry, "There is significant potential for the offshoring sector in Morocco, especially in a context marked by worldwide market growth, the existence of favourable structural trends in Morocco, and the diversity sectors covered by the activity". After twenty years of development and growth, the offshoring sector has kept all its promises, whether in terms of revenue and / or in terms of job creation. The offshoring sector participates in the country's economy in terms of income with more than 1 billion euros in 2018 which brings us very close to the objective of the Industrial Acceleration Plan (IAP) announced by the Minister of Industry, a contribution of the sector to the national GDP in the amount of 16 billion dirhams.

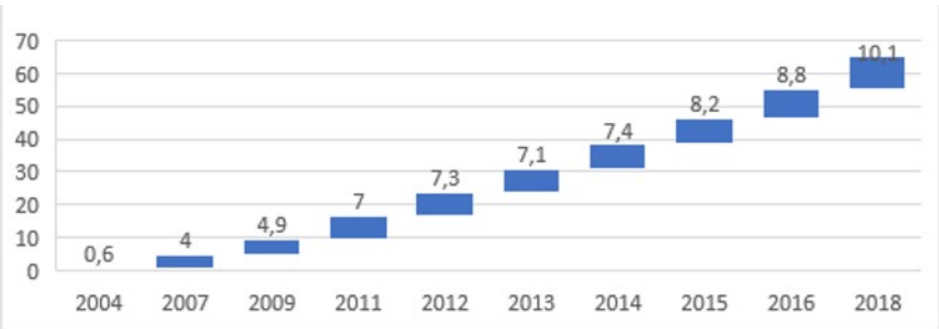

Figure 5: Turnover evolution in Moroccan offshoring exportation

With 1,000 national players, the offshoring sector is positioned as the second employer in Morocco, exceeding 100,000 jobs, including 69,932 direct jobs created between 2014 and 2018. It represents 17 percent of all jobs created during this same period. These figures are distributed very disproportionately among the 1,000 national players. There were a lot of mergers between the various players at the national and international level. This helps the creation of the national big industry players we call the national champions. There are about twenty groups that monopolize more than 80 percent of the industry income and the job creation.

Typology of players in the sector

Structures of call centre scan be classified according to three groups:

The sector champions: The TOP 20 monopolize 80 percent of the industry income and jobs creation. We can divide this group into two subgroups:

- National companies created by Moroccan investors, they were developed in Morocco before going international through acquisitions and mergers and by creating new establishments abroad, particularly in Europe and in Sub-Saharan African countries. Examples include: INTELCIA, MAJOREL and Outsourcia.
- Major international groups: They created subsidiaries in Morocco during the 2000s which have evolved over the years and acquired other Moroccan or foreign players. For instance, “COMDATA”, the international actor that bought “CCA international” in 2018, an international actor which had bought “Data Base Factory” in 2016, another international actor which had bought its Moroccan provider (STRATEGY CALL) in 2009, a midsize contact centre at the time.

The challengers: Medium-sized contact centres with a workforce that varies between 100 and 1,000 employees. Established in different regions of Morocco, especially in cities less coveted by the top 20. This is the group that we want to address and analyse in this study.

The small call centres: They employ less than 50 agents. They can be divided into two sub-groups: Centres of Excellence, often created by the brand to test products and customer service approaches before outsourcing the activity. These centres of excellence are the benchmark in terms of qualitative and quantitative objectives.

Single-client sites: Often created by small investors who manage to have a single client. These are small, custom-build platforms for their customers. These small structures employ less than 50 people and are often dedicated to a single client.

The “challenger” group is the targeted category for the purpose of this study. It is an important category for the Moroccan economy. These are sites located in several cities even outside the “Casablanca-Rabat axis”. They can be found in the northern cities where Spanish-speaking human resources are available: in Tangier and Tetouan, in the centre in Fez and Meknes, and in the eastern region, especially in the city of Oujda.

4.2. Data analysis

To analyse the relevance of these hypotheses, we opted for a three-step quantitative customer survey:

- A “servqual” type survey to calculate the customer’s perception of the quality of service;
- A survey to measure customer preferences in terms of integration of digital communication channels, “Data Mining” and Artificial Intelligence;
- An “NPS” survey to quantify the level of satisfaction with the customer experience.

For our study, we targeted a sample of 100 technical customer service users to assist the installation of home internet connection equipment. The survey was distributed by the call centre telephony system at the end of a communication through an IVR. The customer was brought to answer the questions by DTMF digital input. Of the 100 IVR requests distributed, we identified 64 usable responses.

SERVQUAL

Servqual is a model that was developed by Parasuraman in 1985. It has become standard and is used to measure the quality of service. (Norizan Mohd Kassima, et al. 2002) This model consists of 22 questions scored according to the “Likert scale”. It helps to explore the differences between the customer’s perception of the quality of the service and that of the service provider. (Norizan Mohd Kassima, et al.2002).

This model includes the five dimensions of quality of service, namely: tangibles, reliability, responsiveness, trust, and empathy. (Norizan Mohd Kassima et al. 2002) In an effort to adapt the “Servqual” model to the business sector, we made some amendments. We removed the section of tangibles as call centre clients do not have access to production site or infrastructure. Even if the tools made available to the customer are considered part of the tangibles, we integrated them in the second questionnaire that deals with the integration of new communication technologies. The answers to this questionnaire were scored on a Likert scale mode.

NPS: Le Net Promoters Score

The Net Promoters Score NPS is commonly used by businesses to measure the customer experience. Its calculation is done on a scale of 0 to 10 to answer a single question: “What are the chances that you will recommend our company to someone you know?” (Koladycz et al., October 2018). The NPS is calculated by segmenting customers according to their responses:

- 9 to 10: This is the group of ambassadors, those who had an exceptional customer experience that deserves to be shared positively with those around them. This customer segment will help promote the business;

- 7 to 8: This is the group of neutrals or who expressed no opinion. They are certainly satisfied with the quality of service but did not necessarily have an exceptional customer experience that deserves to be recommended;
- 0 to 6: This is the group of detractors. Dissatisfied customers who have had a bad experience and who risk sharing it negatively with those around them.

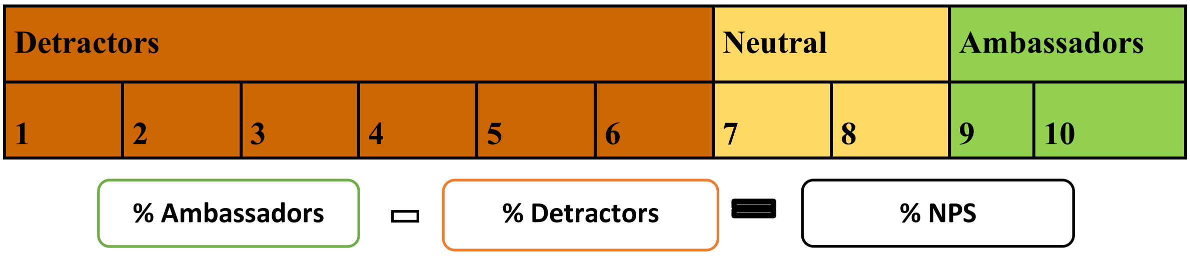

Figure 6: Calculation of NPS

The NPS is obtained by subtracting the percentage of ambassadors from the percentage of detractors. A score of 50 or above is considered a positive score. (Poulard, 2019).

5. Results

Out of 64 selected clients, 29 responded between 8 and 10, 14 between 6 and 7 and 21 between 1 and 6. This gives us 45 percent of ambassadors, 22 percent of those without opinion and 33 percent of detractors which gives us an NPS result of 12 percent.

Client Experience				
Client Segment	**Ambassador**	**Neutral**	**Detractor**	**NPS**
Occurrence	29	14	21	
Percentage	45%	22%	33%	12%

NPS= % Ambassadors - % Detractors

Table 1 : NPS Survey Results

	Ambassadors		Neutral		Detractors	
	Supporters	Antagonists	Supporters	Antagonists	Supporters	Antagonists
Use of digital channels	68,97%	31,03%	64,29%	35,71%	42,86%	57,14%
Use of Data Mining	62,07%	37,93%	64,29%	35,71%	47,62%	52,38%
Use of SVI (AI)	62,07%	37,93%	57,14%	42,86%	47,62%	52,38%
TOTAL	**64,37%**	**35,63%**	**61,90%**	**38,10%**	**46,03%**	**53,97%**

Table 2: Rate of supporters and antagonists according to NPS Segments

We note that 64 percent of ambassadors use digital media against 46 percent of the detractors.

In order to verify the causality between the customer experience and the perception of the quality of service, we integrate the results of the quality of service by customer segment of the NPS:

Quality of Service	Average grade	Ambassadors	Neutral	Detractors
Reliability	**4,23**	4,63	4,26	3,78
Eagerness	**4,16**	4,48	4,14	3,86
Insurance	**4,21**	4,30	4,2	4,13
Empathy	**4,29**	4,38	4,26	4,25
TOTAL	**4,22**	**4,45**	**4,22**	**4,01**

Table 3: Servqual grade by NPS segments

We note that ambassadors have a service quality rating of 4.45 while detractors have a lower-than-average rating of 4.01. Below are the details of the quality of service scores per question:

Domain QoS	Question Code	Average grade	Ambassadors	Neutral	Detractors
Reliability	QSQ1	4,42	4,79	4,63	3,85
	QSQ2	4,08	4,5	3,96	3,79
	QSQ3	4,29	4,79	4,21	3,88
	QSQ4	4,23	4,86	4,33	3,5
	QSQ5	4,1	4,21	4,19	3,9
Total		4,23	4,63	4,26	3,78
Eagerness	QSQ6	3,94	4,36	3,96	3,5
	QSQ7	4,3	4,86	4,38	3,65
	QSQ8	4,24	4,36	4,25	4,1
	QSQ9	4,17	4,36	3,96	4,2
Total		4,16	4,48	4,14	3,86
Insurance	QSQ7	4,23	4,36	4,22	4,12
	QSQ8	4,12	4,29	3,96	4,1
	QSQ9	4,28	4,21	4,38	4,25
	QSQ10	4,22	4,36	4,25	4,05
Total		4,21	4,3	4,2	4,13
Empathy	QSQ11	4,34	4,29	4,22	4,5
	QSQ12	4,22	4,36	4,15	4,15
	QSQ13	4,44	4,5	4,6	4,21
	QSQ14	4,18	4,36	4,05	4,12
Total		4,29	4,38	4,26	4,25

Table 4: Details of Servqual results

To verify the impact of the use of new technologies on the perception of the quality of service, we calculated the scores of the customer's perceptions of the quality of service per response relating to the use of new communication technologies. We note that the average rating given to the quality of service by people who are expert in the use of new communication technologies is 4.44 percent against 4.01 percent for people who are not.

	CDQ		DMQ		IAQ		Total QS	
Domain QoS	Supporters	Antagonists	Supporters	Antagonists	Supporters	Antagonists	Supporters	Antagonists
Reliability	**4,87**	3,9	**4,54**	3,65	**4,57**	3,85	**4,66**	3,8
Eagerness	**4,6**	3,78	**4,42**	3,88	**4,35**	3,92	**4,46**	3,86
Insurance	**4,5**	4,15	**4,25**	4,12	**4,14**	4,11	**4,3**	4,13
Empathy	**4,4**	4,22	**4,28**	4,27	**4,32**	4,25	**4,33**	4,25
Total by question	**4,59**	4,01	**4,37**	3,98	**4,35**	4,03	**4,44**	4,01

Table 5: Servqual grade split: supporters vs antagonists

5.1. Quality of service and use of new technologies

Our analysis is based on a comparison of the scores attributed to the quality of service by customers who use new communication technologies and those who do not. Customers who answered "yes" to the use of new communication technologies assigned a score of 4.44 to the quality of service compared to 4.01 for customers who are not adept at these technologies. This difference varies according to the segments of service quality used during our survey.

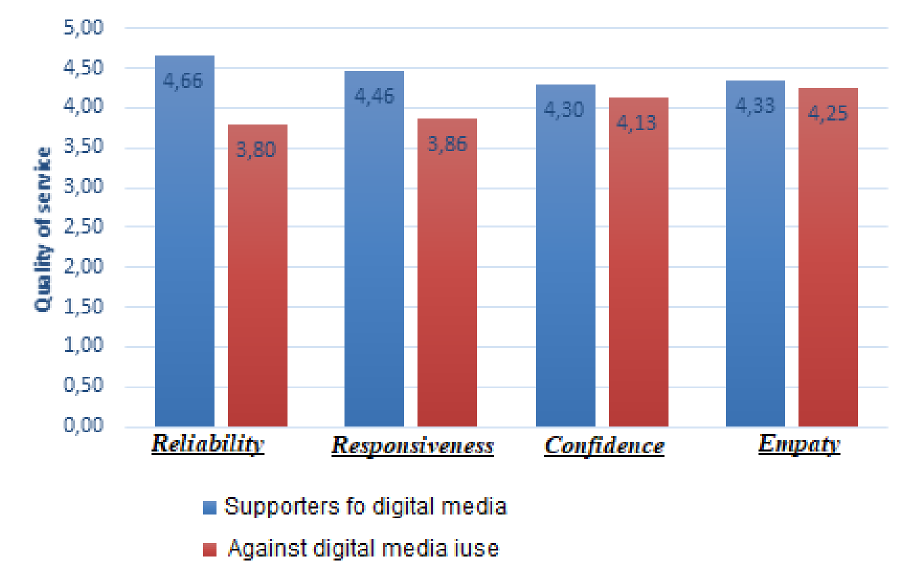

Figure 7: QoS Perception Results

We notice the gap is greater in reliability and responsiveness and less important in the areas of trust and empathy. This can be explained by the fact that the impact of the use of digital tools allows better responsiveness and availability while reducing the margin of human error: digital tools thus increase reliability and readiness. Inspiring trust and empathy, however, depends more on the quality of service of agents where the impact of technology is lower. We therefore understand that our first hypothesis is partially confirmed by our investigation. And that the use of new communication technologies has a positive effect on certain areas of quality of service, first reliability, then speed, given that other areas of quality of service are more dependent on human factors.

5.2. Customer experience and use of new technologies

Our analysis focuses on a comparison of the results obtained for ambassadors with those obtained for detractors.

- The adoption of new communication technologies offered by the contact centre are better accepted by ambassadors than detractors with an average of 64.37 percent for the former and 46.03 percent for the latter. This result illustrates our second hypothesis: that customer experience is positively impacted by the integration of new communication technologies.

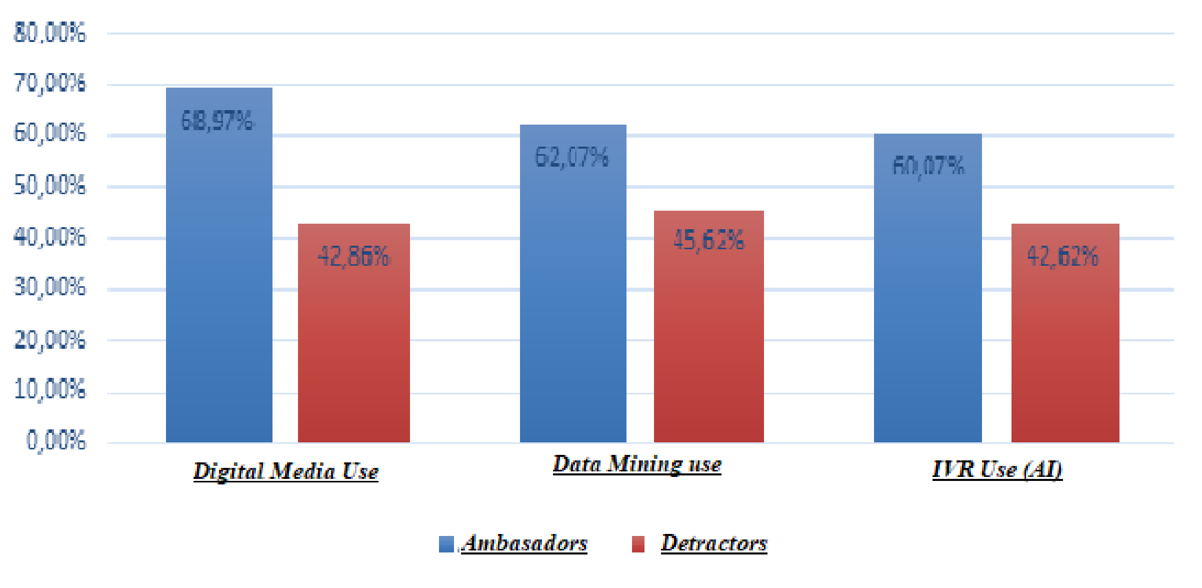

Figure 8: Digital media adoption rate by NPS segment

We observe that the use of digital channels for processing customer support is more appreciated by ambassadors than the use of Data Mining and IVR. The lack of customer enthusiasm for Data Mining may be due to customer concerns about data privacy and security aspects.

Conclusion

Our study shows that improving the quality of service and customer experience cannot be solely based on technological innovation as its impact is limited in certain aspects, in fact it is quite low on certain areas of the business. Quality of service is mostly linked to the professional performance of employees, which itself is impacted by other types of innovations, particularly at the level of production processes, management methods, and at the social level.

The analysis of our survey results confirms that the technological innovation of communication methods has a positive impact on the perception of service quality and on customer satisfaction. The good news for the call centre category targeted by our study is that these innovations have become more accessible than ever. Thanks to the evolution of voice over IP, the performance of telecom networks, particularly the Internet, and the attractiveness of "Data Center" offers, several manufacturers and solution editors have adapted their business model to offer their solution in the cloud.

The perspective of the research is to study the different demographic niches and to prove that they certainly do not have the same sensitivity to the adoption of new communication technologies. In order to have a better understanding of development trends, more targeted studies must be carried out taking into account demographic characteristics such as age, gender, level of academic training, occupation, income level, and / or social status.

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Interactions Between Trade and Climate Governance: Policy Options and Innovative Ways Forward Through Climate Clubs

*Joachim Monkelbaan**

Abstract

This article attempts to answer the question "What could be the role for trade in achieving the goals laid down in the Paris Climate Agreement?" The article explores the interactions between the trade and climate change regimes, their specific interactions, and innovative ways forward in the context of global governance.

Sections 1 and 2 of this paper first assess the numerous linkages between trade and climate change including at the policy level. Chapter 3 then systematically assesses the main policy options for making trade more supportive of climate action, including the creation of climate clubs.

Keywords: trade, climate change, response measures, fossil fuel subsidies, environmental goods and services, border carbon adjustments, climate clubs, carbon market clubs, WTO, UNFCCC

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Introduction

Reaching the goals laid down in the Paris Climate Agreement calls for support from other international regimes. As the world intensifies its search for global solutions to climate change, policy making has paid far too little attention to the nexus between climate change and international trade. Important opportunities for the trade system to contribute to addressing climate change have been overlooked. In this context, what role could trade play?

Countries will adopt climate targets with varying levels of ambition and deploy different measures to achieve them. In a world of increasingly interconnected economies, this will impact other countries through spillover effects, including on trade.

Competitiveness concerns have emerged particularly in the context of the World Trade Organization (WTO), with climate policy makers realizing that WTO law could limit the ways in which they can implement effective domestic climate policies. A series of WTO disputes related to climate and clean energy policies has already emerged.

This article explores the interactions between these regimes established by the UNFCCC and the WTO, their specific interactions, and innovative ways forward in the context of global governance.

OVERVIEW OF THE INTERACTIONS BETWEEN TRADE AND CLIMATE CHANGE

1.1 Similarities and differences between the trade and climate change regimes

Although the trade and climate regimes each have their own organization system and different aims, they do in fact enjoy many common features:

- Both aim to promote greater economic efficiency in order to enhance public welfare
- Both aim to look to the future and advocate actions that, while bringing on short-term adjustment costs, anticipate long-term benefits
- Both worry about free riders and devote considerable attention to securing compliance
- are deferential to the evolutions of developing countries and follow principles of “special and differential treatment” or “common but differentiated responsibilities”
- Both are dynamic works-in-progress, continuing institutional improvements during successive negotiations[1]
- Both are the subject of lively societal discussions on costs and benefits

Finally, it needs to be emphasized that there are provisions in both regimes that mandate mutual support between them. In 1994, more than 100 countries that agreed to transform the GATT into the WTO expressed their shared desire to fulfil the objective of sustainable development in the Marrakesh Agreement.[2]

[1] Murase, Shinya (2003), WTO/GATT and MEAs: Kyoto Protocol and Beyond, available at http://www.gets.org/gets/harmony/projectpapers.html.

[2] https://www.wto.org/english/docs_e/legal_e/04-wto_e.htm

Similarly, while carrying out efforts to address climate change, parties to the UNFCCC should be held accountable for their commitment as expressed in Article 3.5 of the Convention:

"... Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade."

Nevertheless, some fundamental differences exist between the trade and climate regimes:

- Unlike the climate regime, the trading system does not aspire to change the behavioral incentives for individual economic actors.
- In the climate regime, science plays a central role in measuring the problem, and in evaluating policy responses. In the trading system, science plays much less of a role in rulemaking.
- Successful outcomes in the two regimes are defined differently. Although the trading system prefers to move ahead with cooperation, the reality is that trade liberalization is often in each country's own interest, and so countries can move at different speeds. By contrast, in the climate regime, a high degree of inter-governmental cooperation is necessary if the reduction of GHG emissions is to be reached. As a result, non-participation in the climate regime is ultimately a more serious matter than in the trade regime. Even if countries did not trade with each other, the climate regime would need cooperation in order to succeed.[3]
- Whereas the UNFCCC does not offer a mechanism for remedying disputes, the WTO's dispute settlement mechanism has been described as "the most developed dispute settlement system in any existing treaty regime."[4]
- The UNFCCC and the WTO have different objectives. The climate regime is driven by the need to correct market failure. By contrast, the trade regime is not a response to market failure but a response to government failure, that is, the distortions of policy fomented by mercantilism, discrimination, and protectionism.

1.2 The impacts of trade on climate change and vice versa

There are four "mechanisms of action"[5] through which trade could indirectly affect environmental outcomes: scale effects (trade leads to more economic activity and emissions, but the increased income can also lead people to demand better environmental quality); composition effects (trade can shift production to more or less polluting geographies);

[3] Charnovitz, Steve. 2003. Trade and Climate: Potential Conflicts and Synergies. In: Pew Center, Beyond Kyoto: Advancing the international effort against climate change.
[4] Palmeter, David. (2000), 'The WTO as a Legal System', Fordham International Law Journal, 24/1: 444–480.
[5] Grossman, Gene, and Alan B. Krueger, 1991. "Environmental Impacts of a North American Free Trade Agreement," NBER Working Papers 3914, National Bureau of Economic Research, Inc.

technique effects (trade can increase access to 'climate-friendly' but also to carbon intensive technologies); and direct effects (e.g., emissions from international transport).[6]

Notwithstanding the potential for trade–climate synergies, the weight of evidence is in the other direction. Universal tariff reduction increases trade in carbon-intensive and environmentally destructive products, such as fossil fuels, as easily as it does in solar panels and electric vehicles.

The primary concern of the trade regime may not be to 'solve' climate change. But at the very least, it should not stand in the way of effective climate action and realistically, it could make significant contributions to climate action.

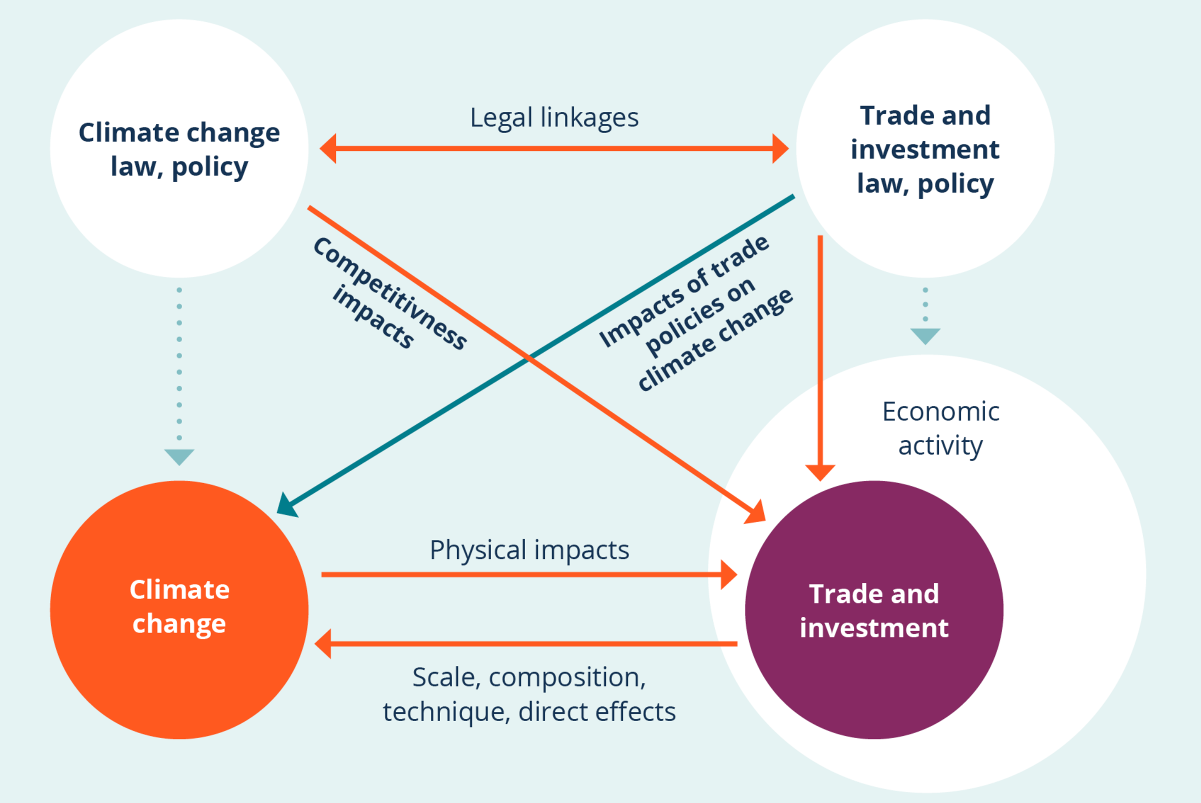
Besides trade having an impact on climate change, the physical processes associated with climate change can also affect the pattern and volume of international trade flows.

There appear to be two likely effects of climate change on international trade.

First, climate change will alter countries' comparative advantages and lead to shifts in the pattern of international trade. This effect will be stronger on those countries whose comparative advantage stems from climatic or geophysical reasons. Countries or regions that are more reliant on agriculture may experience a reduction in exports if future warming and more frequent extreme weather events result in a reduction in crop yields. Trade can help then in providing adequate supplies of food and agricultural raw materials to their populations.

Second, climate change will increase the vulnerability of the supply, transport, and distribution chains upon which international trade depends. Disruptions to the supply, transport, and distribution chains would raise the costs of undertaking international trade. While an increase in trade costs would be bad for trade in general, many developing countries whose integration into the global economy has depended on their participation in international production chains will be more vulnerable than developed countries.

[6] Monkelbaan, Joachim. 2014b. 'Addressing the trade-climate change-energy nexus: China's explorations in a global governance landscape', in Advances in Climate Change Research, Volume 5, Issue 4, December 2014, Pages 206–218.



Explanation: an example of a legal linkage between climate change law (left top) and trade law (right top) is climate change legislation that contains provisions on the limitation of imports of carbon-intensive products (see Section 2). On the other hand, WTO rules could affect the design of climate change legislation that foresees in support for domestic renewable energy industries. The blue arrow indicates the impact that trade policies and disputes related to renewable energy can have on climate change (mitigation). Monkelbaan (2019)

Figure 1. Overview of the linkages between trade and climate change (policies)

OVERVIEW OF THE POLICY LINKAGES BETWEEN TRADE AND CLIMATE CHANGE

This section looks further into the following question: if the interactions between trade and climate change are so numerous, in which areas are there currently linkages between trade and climate change policies?

2.1 Climate response measures

Response measures are measures put into place to address climate change that can have an impact on the social and economic development of other countries.[7] There are two elements to the trade dimension of response measures. First, response measures can have an impact on the trade of other countries. One such example are carbon standards or labels which can be a purely

[7] Teehankee, Manuel; Ingrid Jegou and Rafael Jacques Rodrigues; (2012); Multilateral negotiations at the intersection of trade and climate change - An overview of developing countries' priorities in UNCSD, UNFCCC and WTO processes; Climate Change Architecture Series; Issue Paper No. 2; Geneva: International Centre for Trade and Sustainable Development

climate-related measure that may distort trade. Second, climate action can take the actual form of trade measures, of which border carbon adjustments (BCAs) are the most notorious example.

National measures that address climate change but also restrict trade should not be excluded from the definition of a response measure if they are truly intended to address climate change. Certain kinds of discriminatory trade effects should be permitted in a response measure if those effects are indeed part of a national measure to mitigate climate change. However, trade protection in the guise of climate mitigation should not be included within the definition of a response measure if the climate mitigation in the measure is only a guise and if the genuine aim of the measure is only trade protection.

In exchange for their agreement to a definition of a response measure that includes actions that apply restrictions on trade, developing countries apprehensive of "green protectionism" should be offered increased and accelerated climate finance, technology transfer, and capacity building for mitigating and adapting to climate change, and also additional concessions in agricultural and other sectors of trade that will enable them to maximize their gains from their comparative advantages in the global marketplace. Response measures are discussed in the 'improved forum on response measures' in the UNFCCC and its Katowice Committee of Experts on the Impacts of the Implementation of Response Measures.[8&9] In particular, the UNFCCC guidance on the impact assessment of response measures in developing countries mentions trade impacts from tariffs and BCAs.[10]

2.2 Fossil fuel subsidies

A fossil fuel subsidy is any government action that lowers the cost of fossil fuel energy production by raising the price received by producers or lowering the price paid by consumers. Globally, just over half of fossil fuel subsidies are for oil products, with the rest split almost equally between natural gas and electricity. Estimating the total scale of fossil fuel subsidies is notoriously difficult given their opaque nature and the lack of agreement over what exactly constitutes a subsidy. The OECD and International Energy Agency (IEA) conservatively estimate the total at about US$320bn in 2019.[11] Sometimes unlevied consumption and carbon taxes are included as a form of subsidy and then the figure is closer to US$5 trn (or 6.5 percent of global GDP).[12]

The plunge in fossil fuel prices and consumption caused by the Covid-19 pandemic in 2020 brought down global fossil fuel consumption subsidies to USD 180 billion in 2020, which is

[8] https://unfccc.int/documents/204676
[9] For the work programme, see http://unfccc.int/cooperation_support/response_measures/items/7418.php
[10] Droege, Susanne. et al. 2016. The trade system and climate action: ways forward under the Paris Agreement. Climate Strategies Working Paper. https://climatestrategies.org/wp-content/uploads/2016/10/Trade-and-climate-ways-forward-1.pdf
[11] https://www.iea.org/topics/energy-subsidies
[12] Coady, David. et al. 2017. How Large Are Global Fossil Fuel Subsidies?, World Development, 91, issue C, p. 11-27 and Coady, D., Parry, I., Le, N.-P., & Shang, B. (2019). Global fossil fuel subsidies remain large: An update based on country-level estimates. Retrieved from https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-FossilFuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509

the lowest annual figure since the IEA started tracking the data in 2007.[13] This provides for a historic opportunity to phase out fossil fuel subsidies.

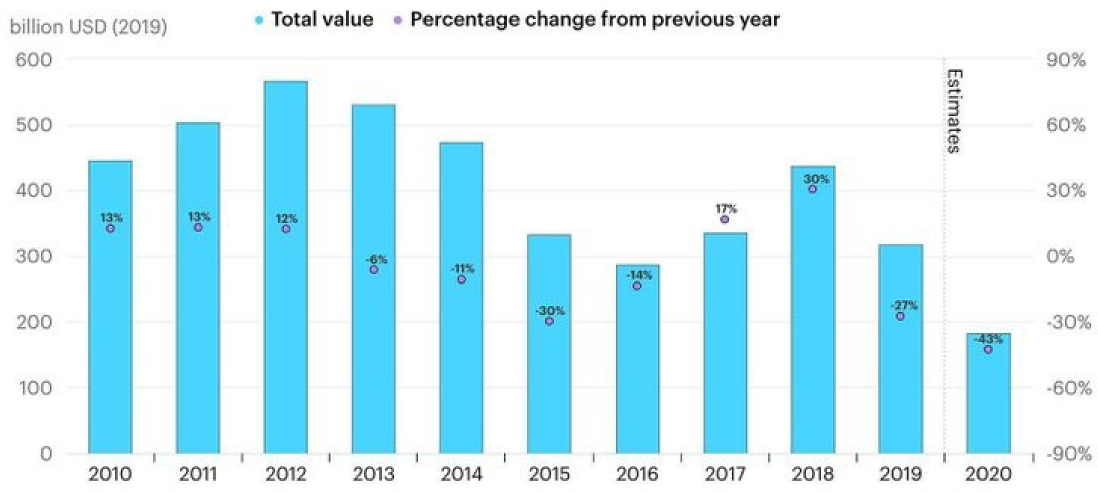


Figure 3. Value of fossil fuel consumption subsidies, 2010-2020.[14]

While sometimes well-intentioned, fossil fuel subsidies have a raft of negative effects, from encouraging smuggling to hurting poor consumers (who are less likely to own cars, and thus more likely to lose out). They also weaken efforts to address climate change by encouraging wasteful consumption of fossil fuels. Some estimate that fossil fuel subsidies had led to extra consumption that was responsible for a staggering 36 percent of global carbon emissions between 1980 and 2010. (Stefanski, 2014) Removing fossil fuel subsidies and applying appropriate taxation could reduce emissions by 28 percent globally. (Coady et al., 2019).

Sustainable Development Goal (SDG) 12 (on sustainable consumption and production) provides a mandate for fossil fuel subsidy reform. Against this backdrop, fossil fuel subsidy reform is recognised as a vital component of the transition to a sustainable future.

It has been suggested that the trade system, including the World Trade Organization (WTO) as well as regional and bilateral trade agreements, should play a role in restricting fossil fuel subsidies. To this end, a group of 12 WTO members[15] made a joint declaration during the WTO's 11th Ministerial Conference (MC11) in Buenos Aires in December 2017, seeking to advance discussion in the WTO.[16]

With its binding nature, effective enforcement mechanism, and its ability to generate rewards in exchange for concessions, the WTO and indeed the broader trade system, including bilateral

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[13] https://www.iea.org/articles/low-fuel-prices-provide-a-historic-opportunity-to-phase-out-fossil-fuel-consumption-subsidies

[14] Ibid.

[15] Chile, Costa Rica, Iceland, Liechtenstein, Mexico, Republic of Moldova, New Zealand, Norway, Samoa, Switzerland, Chinese Taipei, and Uruguay.

[16] WTO. 2017. Fossil Fuel Subsidies Reform Ministerial Statement. WT/MIN(17)/54. See also www.fffsr.org

and regional trade agreements, could make a significant contribution to international efforts to phase out fossil fuel subsidies.

2.3 Trade in climate-friendly technologies

Removing tariffs on environmental goods and services can support the global expansion of renewable energy, recycling, organic agriculture, and other green activities.[17] A 2017 World Bank study estimated that eliminating tariffs and non-tariff barriers (NTBs) on certain clean energy technologies and energy efficiency products could increase their trade volume by 14 percent and 60 percent, respectively.[18] For consumers, lower tariffs reduce prices, while for exporters they open up new markets and increase access to more innovative and cost-effective suppliers.

In many countries, tariffs on environmental goods are already low. A 2017 study found that average tariffs on a selection of environmental goods in Asia-Pacific were just 3.8 percent, compared with 4.5 percent for all industrial goods.[19] For these countries, NTBs constitute a bigger challenge. NTBs, such as opaque licensing practices, product standards and testing procedures, increase the cost and complexity of trade. The WTO's Technical Barriers to Trade Agreement prohibits technical requirements that are designed to restrict trade but allows members to impose them for legitimate purposes such as protecting consumers or the environment.

An agreement to reduce tariffs and non-tariff barriers (NTBs) on trade in climate-friendly technologies goods is an obvious opportunity for synergy between the WTO and climate action. The Doha talks[20] initially held out the promise of such an agreement. Products under discussion in the talks included wind and hydropower turbines, PV cells, and biogas production tanks, among others.[21]

Following the demise of the Doha talks, in 2014 a group of 18 WTO members began negotiating an Environmental Goods Agreement (EGA). The initial omens were good. The agreement was set to focus on a list of 54 product types that Asia-Pacific Economic Cooperation (APEC) economies decided to liberalize in 2012. Supporters argued that the agreement would boost exports, provide cheaper access to clean technologies, and help countries meet their NDC targets. In 2016, the European Commission estimated that the agreement could boost trade flows in green goods by €21bn, while also making clean technologies more cost-effective.[22]

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[17] https://ec.europa.eu/eurostat/documents/3859598/5910217/KS-RA-09-012-EN.PDF/01d1733e-46b6-4da8-92e6-766a65d7fd60?version=1.0
[18] https://www.files.ethz.ch/isn/171995/trade-in-sustainble-energy-services.pdf
[19] https://www.unescap.org/sites/default/files/AWP%20No.%20166.pdf
[20] https://www.wto.org/english/tratop_e/dda_e/dda_e.htm
[21] https://ustr.gov/trade-agreements/other-initiatives/environmental-goods-agreement
[22] Monkelbaan, Joachim. 2016a. Trade Sustainability Impact Assessment on the Environmental Goods Agreement, final report for European Commission, Directorate-General for Trade. By Joachim Monkelbaan (team leader) et al., March 2016 and Monkelbaan, Joachim. 2017. Trade as a Means for Implementing the SDGs: the Example of the Environmental Goods Agreement. Journal of World Trade 51: 4, September 2017.

However, EGA negotiations proved protracted and politicised. Despite a pledge by G20 trade ministers in July 2016 to complete them by the end of the year, they collapsed soon after. An inherent challenge of the EGA process is the lack of agreement on the definition of environmental goods. Many so-called 'environmental' goods have 'dual' or multiple uses, raising questions on how appropriate it is to call them such. All this has led to lengthy and heated debates as to which goods should be listed for the EGA.

2.4 Border carbon adjustments (BCAs)

Border carbon adjustments (also called 'carbon border adjustment measures' or 'carbon tariffs') are trade-related policy instruments to offset differences in the stringency of climate policies between trade partners. They do so by imposing a tax or other regulatory measure on imports based on their carbon content and/ or by exempting exports from domestic carbon constraints.

There are several strong arguments for combining national carbon pricing with BCAs. A carbon tariff on imports could complement national carbon pricing so that emissions from imports are also priced, making carbon pricing symmetrical. Further, governments that do not price carbon emissions provide a hidden subsidy to their industries since their producers do not need to pay for their climate costs, which cause leakage problems.

A carbon tariff hinders the leakage of fossil-intensive production from nations that price carbon, and thereby increases the efficiency in international trade, which is in accordance with the intentions of WTO.[23] A carbon tariff also makes national carbon pricing more politically acceptable, calming those that claim that a price on carbon threatens jobs and growth. A tariff also provides revenues that, like carbon taxes, can be used for other purposes, for example, to lower other taxes or increase government expenditures (e.g., on just transition and to offset impacts of carbon pricing on lower income households).

There are, of course, also arguments against a climate tariff. Most important is the risk that outside nations retaliate and introduce trade barriers, with escalating trade wars and protectionism. However, the risk of protectionism must be balanced against the risks of climate change, and one argument for tariffs is that climate change is more devastating. Besides, retaliation is not a certain reaction.

Another objection has to do with implementing a carbon tariff. It has never been done in practice. However, this does not mean that it cannot be done and there is an extensive literature on the topic.[24] One problem is that measuring fossil emissions from finished goods must be based on estimates of carbon intensity, which is difficult to assess, especially if parts come from many different nations. Therefore, climate tariffs will be based on approximate measures of, for example, energy content or type of industry which will not be fully correct. However,

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[23] Stiglitz, Joseph. 2006. Making Globalization Work. New York: W.W. Norton.

[24] Condon, Madison, and Ada Ignaciuk. 2013. Border Carbon Adjustment and International Trade: A Literature Review. OECD Trade and Environment Working Papers 2013/06, 1–29. Paris: OECD Publishing.

allowing emissions for free can be argued to be worse and "It is better to be a bit right than exactly wrong." (Helm 2012: 191)[25]

In addition, the legality of BCAs is not fully clarified, although most legal scholars argue that BCAs could be designed in a way compatible with the rules of the WTO and using them would involve a host of administrative challenges.

Emissions trading schemes have not been ruled inconsistent with WTO rules, but BCAs may be. The WTO does permit countries to impose compensating charges on similar imported products in order to equalise the tax burden on domestic production. So, direct environmental taxes levied on imported fuel could align with WTO rules if the charges are not more than those facing domestic products.

Past WTO disputes[26] suggest there is flexibility around policies to protect human, animal or plant life, health, and to conserve finite natural resources (as enshrined in Article XX of the GATT), but that any climate policies that discriminate against third countries or show preference for domestic products will fall foul of WTO rules.

Under WTO jurisprudence, a distinction made between products based on the amount of carbon that is used in making them is not justified. A legal determination in WTO dispute settlement that two products are not "like" based on the amount of carbon used in making them would be unprecedented.

POLICY OPTIONS FOR MAKING TRADE MORE SUPPORTIVE OF CLIMATE ACTION

3.1 Group 1. Procedural changes in institutions and practices

Option 1A. Ensuring technical expertise on climate change in WTO dispute settlement panels

Option 1B. Including mandatory climate-related impact assessments in the WTO's Trade Policy Review Mechanism

Another WTO window worth exploring is the Trade Policy Review Mechanism (TPRM), the WTO's central surveillance system of national trade policies.[27] There have been repeated calls for the TPRM to survey not only the impact of national environmental requirements on free trade, but also the impact of international trade agreements on national ecological interests and policies.

[25] Helm, Dieter. 2012. The Carbon Crunch. How We're Getting Climate Change Wrong – and How to Fix It. New Haven, CT: Yale University Press.

[26] E.g., Tuna-Dolphin, Shrimp-Turtle, and Canada-Feed-in-Tariff disputes.

[27] Also see https://www.wto.org/english/tratop_e/tpr_e/tpr_e.htm

Option 1C. Enhancing coordination between the WTO and UNFCCC through more intensive use of existing forums

To avoid a collision between the climate and trade regimes that will potentially be harmful to both, the ongoing deliberation on response measures in the climate regime must be reframed

New WTO working group on trade and environmental sustainability

More than fifty WTO members[1] launched talks at the end of 2020 to advance work on trade and environmental sustainability: the Trade and Environmental Sustainability Structured Discussions (TESSD).

This diverse group of WTO members takes an innovative and unique approach to addressing challenges like climate change, circular economy, green aid-for-trade and fossil fuel subsidies by involving a small core group of civil society organisations. The author of this article was the only representative from a 'pure' NGO (not private sector, think tank or academic institutions) that was asked for inputs on the draft statement to create the group and is invited to TESSD meetings. He is building a consortium with other civil society actors in support of the TESSD. With this consortium, he will focus on building the capacity of developing countries to engage meaningfully in the TESSD and of all countries to ensure that outcomes are equitable, just, and sustainable. The legitimacy of the TESSD has been further strengthened by the G7 communiqué of 28 May 2021, which says that "the structured discussions at the WTO on trade and environmental sustainability are an opportunity to build momentum" towards "coordinated solutions" for "global problems such as climate change and biodiversity loss".

by systematic coordination between the trade and climate regimes. This could be achieved through more effective use of the existing forums, such as the WTO Committee on Trade and Environment[28] (CTE) and the UNFCCC's 'Improved Forum on the Impact of the Implementation of Response Measures'.

3.2 Group 2. ACTIONS UNDER PLURILATERAL AND REGIONAL TRADE AGREEMENTS

Option 2A. Intensifying efforts under plurilateral approaches

Plurilateral agreements struck under the aegis of the WTO, particularly the 'inclusive' type of agreements (see below under 'ways of adopting plurilateral agreements'), could offer scope for a group of like-minded WTO Members to move ahead and agree on common rules addressing certain areas at the intersection of trade and climate change. This would bypass the hurdles caused by the slow pace of decision-making under the WTO.

A plurilateral initiative that has significant potential and has also made some concrete progress is the Environmental Goods Agreement (EGA, also see section 2.3 above).

Option 2B. Including climate-friendly provisions in FTAs

Climate change-related provisions could be included in FTAs either as part of the main text or as a side-agreement (e.g., the old NAFTA). While in some agreements they take the form of

[28] https://www.wto.org/english/tratop_e/envir_e/wrk_committee_e.htm

general statements of intent, many FTAs go further and include chapters and provisions relating to the environment and sustainability.[29]

3.3 Group 3. Other options

Option 3A. Amendment of WTO agreements
One option is to amend relevant WTO agreements to change the relevant trade rules. Recent years have seen a surge in WTO disputes targeting domestic support and policy measures related to renewable energy. These disputes indicate potential conflicts between the trade regime and climate action. One argument in favour of amending WTO rules is that the case-by-case nature of WTO disputes does not provide sufficient structural legal guidance for the implementation of NDCs under the Paris Agreement. It also leaves the settlement of climate-related disputes to an institution that is guided first and foremost by the rules of the multilateral trading system.[30]

Suggestions in this regard include amending Article XX GATT to explicitly accommodate climate change measures or measures taken pursuant to multilateral environmental agreements or amending the SCM Agreement to provide space for green subsidies.[31]

Option 3B. A WTO climate waiver
A WTO "climate waiver" would enable countries to impose trade-restrictive measures that are in line with Paris Agreement obligations, based on the amount of carbon used or emitted in making the products concerned. It would enable members of the WTO to lawfully take measures that, without the waiver, might be found to be violating WTO law (or which members may perceive to violate WTO law).

Option 3C. A temporary 'peace clause' for trade-related climate measures
Another way to give some leeway for WTO members when implementing their climate policies under the Paris Agreement would be a time-limited "peace clause" or a 'moratorium' on taking action against trade-related climate measures. Such a peace clause could commit WTO members to wait (e.g., at least three years) before challenging national climate measures, or refrain from using countermeasures that restrict trade or otherwise have trade effects in WTO dispute settlement.[32]

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[29] Gehring, Markus W. et al. 2013. "Climate Change and Sustainable Energy Measures in Regional Trade Agreements (RTAs): An Overview." Climate Change Architecture Series Issue Paper No. 3. International Centre for Trade and Sustainable Development, Geneva.
[30] Bacchus, James. 2016. Global Rules for Mutually Supportive and Reinforcing Trade and Climate Regimes. E15 Expert Group on Measures to Address Climate Change and the Trade System – Policy Options Paper. E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
[31] International Bar Association (2014), Achieving Justice and Human Rights in an Era of Climate Change Disruption http://www.ibanet.org/Document/Default.aspx?DocumentUid=0F8CEE12-EE56-4452-BF43-CFCAB196CC04
[32] Droege, S. et al. 2016. The trade system and climate action: ways forward under the Paris Agreement. Climate Strategies Working Paper. https://climatestrategies.org/wp-content/uploads/2016/10/Trade-and-climate-ways-forward-1.pdf

3.4 Climate clubs

Over the past few decades, we have seen that multilateral cooperation on climate change has several drawbacks, including the need for consensus, some countries actively trying to block cooperation, the sheer diversity in preferences and goals.[33] The Paris Agreement, however big an achievement it is diplomatically, has two major structural defects: it is uncoordinated, and it is voluntary.[34]

To be sure, the cooperation that has occurred under the UNFCCC and other global fora has produced some useful outcomes, including data about emissions and policies, the UNFCCC's financial mechanism, and the importance for governments to meet regularly.[35]

Complementary designs that compensate for the shortcomings of designs with global coverage, such as the Paris Agreement, are required.[36]

The support for 'club governance arrangements' as a complementary approach to international cooperation has grown in recent years, not least due to the recognition that climate clubs can help make faster and deeper progress than the full United Nations membership. A central feature of the club is that it creates a strategic situation that is the opposite of today's free-riding incentives. With a climate club, countries acting in their self-interest will choose to enter the club and undertake high levels of emissions reductions because of the penalties for nonparticipation.

Climate clubs could bring together groups of countries, and possibly non-state actors, to work together on a specific climate issue by following agreed guidelines and rules in exchange for benefits that can be shared among themselves and excluded from non-members. Through their unique incentive structure built around these so-called exclusive "club goods," climate clubs can help incentivise participation, ensure compliance, deter free-riding, and scale up ambition.[37] Hovi et al. (2017)[38] define a climate club as any international actor (country) group that (1) starts with fewer members than the UNFCCC has and (2) aims to co-operate on climate change mitigation.[39]

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[33] Victor, David G. 2015. The Case for Climate Clubs. E15 Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
[34] Hovi, Jon, Sprinz, Detlef, Sælen, Hakon and Underdal, Arild (2017) The Club Approach: A Gateway to Effective Climate Co-operation? British Journal of Political Science 49, 1071–1096. doi:10.1017/S0007123416000788 and Nordhaus, W. 2020. The Climate Club: How to Fix a Failing Global Effort. Foreign Affairs.
[35] Victor, David G. 2015. The Case for Climate Clubs. E15 Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
[36] Pihl, Håkan. 2020. A Climate Club as a complementary design to the UN Paris agreement, Policy Design and Practice, 3:1, 45-57, DOI: 10.1080/25741292.2019.1710911.
[37] Victor, David G. 2015. The Case for Climate Clubs. E15 Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
[38] Hovi, Jon, Sprinz, Detlef, Sælen, Hakon and Underdal, Arild (2017) The Club Approach: A Gateway to Effective Climate Co-operation? British Journal of Political Science 49, 1071–1096. doi:10.1017/S0007123416000788 and Nordhaus, W. 2020. The Climate Club: How to Fix a Failing Global Effort. Foreign Affairs.
[39] Pihl, Håkan. 2020. A Climate Club as a complementary design to the UN Paris agreement, Policy Design and Practice, 3:1, 45-57, DOI: 10.1080/25741292.2019.1710911

Some governments and experts are sceptical about climate clubs and fear that they may undermine the multilateral climate response and result in policy chaos. However, this is not necessarily supported by experience with fragmentation in regulatory regimes and the competition from climate clubs may result in more effective climate responses.[40] Moreover, the adoption of the Paris Agreement, which explicitly acknowledges and even requires bottom-up approaches to climate action, may somewhat help lower the scepticism given that decentralisation is an inherent feature of the new climate regime.

It is important that climate clubs are transparent and inclusive, have clear and objective membership criteria, and are anchored in the multilateral climate regime as complementary efforts in the global climate response. The latter may for example involve adopting basic standards for clubs, as well as club members making pledges to the UNFCCC that will be peer reviewed. (ibid.)

Keohane et al (2015)[41] propose a particular type of climate club: a club of carbon markets (CCM) or carbon market club (CMC). Such a club's goal would be to promote deep reductions in emissions by supporting the development, harmonization, and increased ambition of domestic carbon markets, including in fast-growing economies. Members of a CMC would establish harmonized or reciprocal standards for monitoring and reporting emissions, accounting, transparency, and environmental integrity; create a shared market infrastructure to support the mutual recognition of emissions units; share experience and cooperate in building institutional capacity; and work jointly to further the ability of these markets to promote domestic and cross-border investment in low-carbon technologies.

Article 6 of the Paris Agreement explicitly recognises countries' ability to engage in "cooperative approaches" on a voluntary basis, including with regard to "internationally transferred mitigation outcomes."[42] It has thus created a multilateral foundation for a range of market-based cooperative approaches, such as carbon market clubs.

A secure way for club members to shield themselves from potential conflicts with WTO rules, and for the trade system to actually support carbon market clubs, would be to establish them through free trade agreements (FTAs). This can take the form of plurilateral agreements under the WTO or preferential trade agreements (PTAs), which are negotiated outside the scope of the WTO but permitted by its rules as long as certain conditions are met.

A CMC could be established through a WTO Annex 4 agreement—an exclusive plurilateral agreement under Article II.3 of the Marrakesh Agreement. A plurilateral agreement would

[40] Victor, David G. 2015. The Case for Climate Clubs. E15 Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
[41] Keohane, Nathaniel, Annie Petsonk, and Alex Hanafi. 2015. "Toward a Club of Carbon Markets," Climatic Change.
[42] Article 6.1 of the Paris Agreement broadly recognises countries' ability to cooperate in the implementation of their NDCs to allow for higher ambition, while Article 6.2 more specifically recognises voluntary "cooperative approaches" involving "internationally transferred mitigation outcomes" (ITMOs). The Paris Agreement therefore explicitly acknowledges bottom-up approaches to carbon market cooperation. Article 6.4 further establishes a new UNFCCC mechanism to contribute to mitigation and support sustainable development, thus offering a top-down market element.

allow subsets of WTO members to restrict free trading to club members in the area of emission units only, without facing the risk of future challenges before a WTO panel. For the purpose of a carbon market club, an exclusive plurilateral agreement would be an interesting option, allowing club members to deviate from their MFN obligation vis-à-vis non-club members. As such, the club would be able to make the exchange of emission units an exclusive right for club members without the risk of being challenged before a WTO panel. Since plurilateral agreements have to be approved by WTO members and thus cannot be challenged in a WTO dispute for inconsistency with multilateral trade rules[43] this approach would provide strong legal certainty and support for the carbon market club.

The other key attraction of forming a carbon market club around a plurilateral WTO agreement is that such agreements can be issue- specific and narrow in focus. It is therefore possible for the agreement to apply only to trade in emission units. While the Government Procurement Agreement is rather broad in its scope, there have previously been examples of product-specific plurilaterals, on dairy and bovine meat for example.[44]

Although a plurilateral agreement under the WTO offers a promising opportunity to form a legally sound carbon market club, this is by no means an easy undertaking as it would require consensus of the WTO Ministerial Conference.[45]

Regional trade agreements (RTAs)

Club members could also frame the carbon market club as an RTA according to GATT Article XXIV or GATS Article V, which does not involve voting from the WTO membership. RTAs would enable CMC members to deviate from non-discrimination obligations as long as the trade restrictions on non-members of the RTA are not higher than before.[46]

As this would require "substantially all" trade to be liberalised[47], however, and negotiating RTAs is a lengthy and complex process, the most feasible approach would be to integrate carbon market clubs into existing RTAs or those under negotiation, such as NAFTA, CPTPP, CETA or TTIP.

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[43] Hoekman, Bernard M., and Petros C. Mavroidis. 2013. "WTO 'à la carte' or WTO 'menu du jour'? Assessing the Case for Plurilateral Agreements." EUI Working Paper RSCAS 2013/58. Robert Schuman Centre for Advanced Studies, European University Institute. https://cadmus.eui.eu/handle/1814/27611
[44] Ibid.
[45] Draper, Peter, and Memory Dube. 2013. "Plurilaterals and the Multilateral Trading System." E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
[46] Leycegui, Beatriz, and Imanol Ramírez. 2015. Addressing Climate Change: A WTO Exception to Incorporate Climate Clubs. E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
[47] GATT Article XXIV stipulates that the agreement must apply to "substantially all trade," while GATS Article V has a similar provision with regard to services, requiring "substantial sectoral coverage." While "substantial" is a vague term and has been subject to disagreement in the past (Matsushita 2010), it is evident that a carbon market club designed to liberalise trade only in emission units would not satisfy this criterion. This could provide grounds for other WTO members to challenge the RTA before a WTO panel.

Conclusions

One main conclusion from this article is that while trade and investment cannot 'solve' climate change (and other global challenges), they can potentially play a much more constructive role.

Economically, environmentally, and in every other way, the linkage between trade and climate change in global governance is unavoidable and inescapable. Climate actions—which, in the current expectation, are to be nationally determined—will necessarily affect terms of trade.

On the other hand, trade has a direct impact on emissions, positive and negative, through transport and the use of resources. Trade can also play an important role in mitigation as well as adaptation by fostering access to goods such as food, and by speeding the spread of clean new technologies.

Trade agreements can also limit the "policy space" available to countries to tackle climate change, a subject that is especially relevant in the post-Paris world. Future climate policies such as border taxes on carbon-intensive products could be challenged if they are deemed to discriminate on unjustifiable grounds or to be a disguised restriction on international trade. In NDCs published to date, various countries have announced policies that could lead—and in some cases have led—to trade disputes for violating principles such as non-discrimination or open borders.[48]

Several climate-related disputes recently emerged and, with the Paris Agreement's emphasis on nationally driven mitigation, the interactions between the policy fields could increase. Both regimes find themselves at crossroads. This might lead to new opportunities to create rules and procedures that support trade-related climate policy measures.

One overriding message to trade and climate negotiators alike about how best to meet the global challenge of reconciling our goals for trade and for climate change is: "Acknowledge the inseparability of the two issues". Based on this mutual acknowledgment, they could acknowledge the essential legitimacy of each other's goals, and begin to communicate in earnest. This communication could aim at framing mutually consistent, supportive, and reinforcing global rules on trade and climate.

Neither the goals of the long-established global trade regime nor those of the global climate regime can be accomplished unless the two worlds of trade and climate endeavour can come together to work as one. In the absence, so far, of any structured communication between the climate and trade worlds, there is a prevailing air of mutual apprehension. Climate advocates fear that trade rules will keep us from fighting climate change. Trade advocates fear that making allowances for fighting climate change in trade rules will lead to an endless procession of other causes seeking such special allowances, which could undermine a global trading system more than half a century in the making. As voiced by Bacchus (2016)[49], "there is also a prevailing

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[48] https://iccwbo.org/content/uploads/sites/3/2019/03/icc-report-trade-and-climate-change.pdf

[49] Bacchus, James. 2016. Global Rules for Mutually Supportive and Reinforcing Trade and Climate Regimes. E15 Expert Group on Measures to Address Climate Change and the Trade System – Policy Options Paper. E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.

mutual procrastination. Each of the climate and the trade worlds is waiting for the other to act first on the issues that concern them both.”

Advancing climate change objectives among a smaller set of like-minded countries is an avenue worth exploring further, either through plurilateral, regional trade agreements, or a climate club. Through their unique incentive structure built around exclusive benefits, ‘climate clubs’ are well placed to increase ambition and participation, ensure compliance, and deter free-riding. As such, they have the potential to make a meaningful contribution to scaling up climate action and thus to achieving the Paris Agreement goals. While climate clubs can be formed around a range of specific climate issues, carbon pricing and carbon markets are particularly promising for such efforts.

The Trade and Environmental Sustainability Structured Discussions could offer particularly exciting opportunities for advancing a climate club in the longer term as they already cover topics like trade and climate change (and BCAs in particular), fossil fuel subsidy reform, EGS, and green Aid-for-Trade as an incentive for developing countries to join.

The increased coordination between the WTO and the UNFCCC also has high potential. This could happen through more effective use of existing forums such as the WTO’s Committee on Trade and Environment and the TESSD and through the UNFCCC’s Improved Forum on Response Measures.

BOOK REVIEW

The Book of Real-World Negotiations: Successful Strategies from Business, Government, and Daily Life by Joshua Weiss. (2020). New Jersey. John Wiley & Sons, 303 pages. ISBN: 978 111961691

Reviewed by Claude Cellich, International Institute in Geneva.

In The Book of Real-World Negotiations, the author provides 25 short negotiation cases in international business situations, dealing with governments, and daily life. Having access to real world cases is most welcome as too often the supply of cases is limited due to the confidentiality of the negotiations and sensitivities of the parties or negotiators seeking anonymity. Each case starts with a brief background, followed by preparation, the negotiation itself, and ends with lessons learned.

The cases are written like a story in a user-friendly style. Story telling is an effective way of communication by maintaining interest in the subject (Fryer, 2003). Cases written as stories help learning, understanding, and make remembering key issues easier.

Reference is made to the difference between one-time negotiations versus repeated ones. The author mentions that in business, most negotiations between parties are continuous, while one-off negotiations account for only a smaller percentage. This is in line with the 80/20 principle where 80 percent of the market is provided by 20 percent of suppliers (Koch, 1998). Businesses appreciate long-term relationships and do not shift their business to unknown sources unless they have strong reasons to do so (Borgeon and Cellich, 2020). Healthy business relationships between companies and suppliers can lead to lower costs, innovation and improved on-time delivery (Borgeon and Cellich, 2020). To keep long-term relationships with their major partners, negotiators applying collaborative strategies and concentrating on common interests are most likely to reach mutual gains in the long-term.

The book ends with a concluding chapter listing five principles that help negotiators reach superior outcomes as listed below:

> "Preparation (principle 1)
> Mind-set and the importance of the relationship (principle 2)
> Creative problem solving (principle 3)
> Managing the emotional side of negotiation (principle 4)
> Uncovering the hidden dimensions of negotiation (principle 5)"

In addition, there are six other key issues that need to be taken into consideration by negotiators as listed below:

Concentrating on interests not on position
Being flexible
Considering intangibles
Being persistent
Relying on third parties to break a deadlock
Keeping the door open in case of no agreement.

Preparation is the most important element of any negotiation. Part of preparation involves gathering information about one's counterpart, on competition and market conditions, as well as third parties that can influence the negotiation process and outcome. The acronym I FORESAW IT, which lists 10 questions, is used as a reference for preparation and is a useful tool for negotiators improve their preparation skills.

Information is of course vital in any negotiation although about 20 percent of information may not be available by the time both sides meet. That's when experienced negotiators rely on information-seeking questions to find out their counterpart's hidden interests and possibly uncover additional value as well as check on prior assumptions. It is essential that negotiators shift the discussions from position to interests to reach mutual gains (Fisher and Ury, 1981). Questions require negotiators to be active listeners and not to interrupt the other party as in certain cultures, this can lead to a deadlock. Although being prepared is essential, successful negotiators expect the unexpected and adapt their strategies as they gain new information and possibly come up with innovative solutions.

As negotiation is about persuasion, the author frequently refers to Cialdini's (2018) principles of persuasion. Although dated, the principles of persuasion are still relevant today as some of the cases clearly illustrate. These principles are reciprocity, consistency, social proof, liking, authority, scarcity, and unity. Applying these principles of influence enhance the negotiators' success in reaching satisfying outcomes.

There is mention of an innovative idea concerning the concept of Post Settlement. After reaching a deal, both negotiators agree to review the agreement to uncover interests that may have been left out. By doing so, negotiators can further expand the bargaining zone and possibly improve the original deal. However, applying this method implies both sides agree to review the agreement, share information, and negotiate in good faith. This concept can be useful to those negotiators who have a tendency to rush the negotiations or are impatient to conclude, thereby failing to maximize joint gains.

In conclusion, by providing real-world negotiation cases, the author fills an important gap in the existing literature. Although there are a plethora of publications dealing with negotiations, only few provide such a complete set of real-life cases. Cases in Real World Negotiations are powerful tools to learn how negotiators plan, interact, and discover hidden interests through creative thinking to reach beneficial outcomes. The book is an excellent primer for business executives wanting to know how other decision makers were able to negotiate mutually creative solutions despite overwhelming odds. It is equally valuable to scholars considering the development of real-world negotiation cases to supplement their growing body of knowledge in the subject matter. Finally, anyone interested in real negotiation situations can learn from the experience of negotiators in overcoming obstacles to reach agreements in a competitive, disruptive, and unpredictable global environment.

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