

Изолированные сообщества и тенденции автаркии: аннотированная оперативная библиография 2019-2021 гг.

Подготовлено с помощью поисковой машины *scholar.google.com*

поддержка РФФИ, грант № 20-011-00187 А

Содержание

| | |
|--|----|
| Введение..... | 1 |
| Изолированные сообщества..... | 2 |
| Исторические проекции автаркии..... | 5 |
| Под гнетом санкций..... | 11 |
| В поисках технологической самодостаточности..... | 17 |
| Глобальное распространение знаний и научная мобильность в новых условиях | 27 |

Введение

Изолированная социально-экономическая система (автаркия) для развития и выживания использует только собственные внутренние возможности. Понятие автаркии восходит к греческому термину, означавшему «самодостаточность». Такого рода замкнутость может выступать как условие, продиктованное внешними экологическими и географическими реалиями, а также представлять цель обдуманной политики. Степень проницаемости границ автаркии (изолята) определяется интенсивностью так называемого социального и экономического метаболизма. В свою очередь, социально-экономический метаболизм включает обмен разнообразными ценностями: природными ресурсами, территориями, человеческим капиталом, товарами, информацией. Причины нарушения обмена ресурсами с внешним миром различны, при этом даже небольшое ограничение начинает со временем сказываться на развитии полностью или частично изолированного сообщества.

В указателе собраны новые (2019-2021 гг.) источники по проблеме изолированных сообществ и тенденций автаркии. Для России эта проблема обусловлена тем, что сегодня многолетние традиции самоизоляции российской научно-технологической сферы наложились на внешние ограничения. Перспективы международных санкций в этой сфере не очень радостные. Они, скорее всего, будут приобретать всё более изолирующий характер. Уже свернуты разнообразные международные образовательные программы, научные проекты с участием России, введены визовые, финансовые ограничения. Однако проблема связана не только и не столько с экспортно-импортными потерями. Если система в какой-то степени является изолированной, ее главным риском является возникновение «токсичной» управленческой среды. Этот риск связан с отсутствием в изоляте кадровой конкуренции и межстрановой циркуляции квалифицированных специалистов. В результате становится невозможным эффективно использовать даже готовые импортированные современные технологии. Таким образом, поддержание активности научных коммуникаций и международных кадровых обменов становится чрезвычайно важным в нынешних условиях.

Включены новые материалы по общим вопросам изучения изолированных сообществ, по стратегиям выживания сообществ под санкционным давлением, по методам достижения технологической самодостаточности, по вопросам оптимизации научно-технологических обменов, в частности, в условиях санкционных ограничений.

Каждая ссылка для удобства перехода снабжена идентификаторами DOI или URL. Многие из упомянутых публикаций размещены на (в) ресурсах открытого доступа. Приведены не только монографии и статьи из подписных изданий, но и статьи, препринты и иные материалы открытого доступа, в том числе из репозиториев. Таковы веяния времени. Подборка материалов будет полезна для анализа проявления автаркических тенденций в России и в мире с точки зрения состояния, возможностей и условий международного сотрудничества.

Изолированные сообщества

Автаркия декларируется как инструмент обеспечения суверенитета и служит обоснованием для агрессивной политики, направленной на создание обособленного политического и социально-экономического пространства. В современном мире полная автаркия невозможна, однако автаркические тенденции наблюдаются. При неблагоприятных условиях автаркия ведёт к самоизоляции страны, свертыванию внешнеэкономических связей, научно-технологической кооперации, сокращению сотрудничества в области культуры и гуманитарных вопросов.

Концепции автаркии противоположна идея открытой экономики, к которой многие страны перешли к началу XXI века. Открытая экономика способствовала созданию современного мира, в котором готовность к зависимости от других опирается на стремление к поддержанию мира и установившегося миропорядка, так как торговля в первую очередь страдает от войн и спонтанных решений. Мировая экономика в середине 1980-х годов изменила траекторию после того, как Китай, Вьетнам, Индия, Индонезия и некоторые другие страны с изоляционистскими традициями полностью или частично отказались от автаркии в пользу стратегии роста, основанного на открытой экономике.

Не в последнюю очередь к благоприятным факторам, уводящим от автаркии, относятся развитие научно-технологических коллабораций и растущий запас знаний. Количественно это подтверждают расчеты по модели, описывающей распространение инноваций и технологий в среде производителей. Инновации и их распространение моделируются как процесс, включающий сочетание новых идей, разработанных в стране или в отрасли с идеями из других отраслей и стран [Grabner, см. далее].

Принципов открытой экономики придерживаются многие малые страны. Интересен пример группы малых островных развивающихся государств, которые, как правило, являются открытыми экономиками с большим соотношением объема внешней торговли к ВВП. Зависимость этих стран от внешней торговли объясняется небольшим размером их внутреннего рынка и малой ресурсной базой. Стоимость автаркии и поддержания технологической самодостаточности оказывается более высокой в сравнении с крупными государствами. Помимо известного примера – Сингапура – следует упомянуть Маврикий, история успеха которого в значительной степени связана с эффективным партнерством государства и бизнеса. Стратегия Маврикия по привлечению инвесторов предполагает развитие научно-технологических обменов и обеспечение достаточного предложения квалифицированной рабочей силы. Интересно, что тогда как в биологических науках островные сообщества рассматриваются в качестве классического изолята (так называемые островные ценозы), в экономике, наоборот, многочисленные островные государства в большинстве своем являют примеры открытой экономики [Fosu, см. далее].

В связи с пандемией COVID-2019 тенденции автаркии приобрели новые черты [Packard, Bollard, см. далее]. Эти тенденции переходят с мирового уровня на континентальный, на уровень отдельных стран и далее, вплоть до муниципальных округов [Seker, et al., Dada, см. далее]. Анализ динамики изменений в условиях пандемии предсказывает, что в

ближайшем будущем роль государства во всех странах возрастет, а элиты будут продвигать идеи самодостаточности, автаркии и государственного контроля. Этому вопросу посвящены новые публикации.

Packard, M. D. (2020)

Autarkic Entrepreneurship. *The Quarterly Journal of Austrian Economics*. 23(3-4), p. 390-426.

DOI: [10.35297/qjae.010075](https://doi.org/10.35297/qjae.010075)

The so called autistic economy (here autarkic)—the economy of one—has been employed by Austrian theorists as a useful analytic baseline on which to build catallactic (market process) theory, which has included a theory of entrepreneurship. But so far, the autarkic economy has been examined almost exclusively in this way. In this article it is argued that the autarkic economy must be brought forward in our theorizing to be understood not as a mere analytic tool, but as a real and significant aspect of praxeology. It is proposed that catallaxy and autarky be understood as substitutes, complements, and even competitors. Extending Austrian theorizing of the autarkic economy, the entrepreneurial function within autarkic economies is examined and elaborated. It is shown that, far from only a catallactic role, the entrepreneurial function is prominent within the autarkic economy also, in which the entrepreneur plays a significant role in augmenting individual lifestyles and, thus, total economic development.

Balzer, H. (2020)

Can Russia Catch Up/Keep Up? Russian Science and Education in Putin's Fourth Term. In: *Putin's Russia*. p. 127-198

DOI: [10.1142/9789811212680_0006](https://doi.org/10.1142/9789811212680_0006)

As the dissipation of the Soviet Union's hard-won, if deeply uneven, achievements in education and science continues, Vladimir Putin's government persists in making sports facilities and weapons its funding priorities. The fascinating conundrum in this story is how Russia manages to maintain a credible military capacity as its status as a centre of scientific education and research declines. How long this can continue in the face of low economic growth and sanctions and the flight of the creative class has become a crucial question.

Fosu, A. K., Gafa, D. W. (2020)

Development Strategies for the Vulnerable Small Island Developing States (SIDS). In: *Shaping the Future of Small Islands*. Palgrave Macmillan, Singapore. p. 37-70.

DOI: [10.1007/978-981-15-4883-3_3](https://doi.org/10.1007/978-981-15-4883-3_3)

This paper draws on the examples of two well-performing small island developing states (SIDS), Mauritius and Singapore, to provide lessons for vulnerable SIDS on strategies that can help overcome their inherent vulnerabilities and promote economic development. The paper concludes that building human and institutional capacities, boosting exports and infrastructure development, and promoting foreign direct investment and industrialization under a strong public-private sector institutional partnership are key to fostering economic resilience and achieving sustainable development.

Seker M., Özer A., Korkut C. (2020)

Reflections on the pandemic in the future of the world. Ankara: Turkish Academy of Sciences Publications. 997 p.

ISBN: 978-605-2249-53-6

Media, entertainment, and sports sectors affect economic systems and other sectors due to their relationship with other sectors; are areas that concern everyone in the social life, far or closely. The fact that the COVID-19 outbreak, which was on the agenda of the

world at the end of 2019 and was declared as a pandemic by the World Health Organization due to its alarming spread on March 11, 2020, is closely related to this social interest. Right after the declaration of a pandemic because of the symbiotic nature of the sector, in accordance with the decisions taken in the world and in Turkey, entertainment venues closed, media content industry crisis emerged, individual and collective sporting events is prohibited. Prohibitions have revealed short, medium and long-term negativities on each sector, and technological convergence and increased digitalization have enabled these sectors to breathe partially through alternative practices. The process also has the potential to reveal opportunities and threats in the long run. The pandemic situation created a new paradigm in media use and entertainment, and even rituals of religious and cultural origin, such as holidays, have kept up with this change. Digitalization, which received the most criticism in academic life and practice, became more involved in life after the COVID-19 outbreak; It stands out with its potential to be the most effective medium of entertainment and sports. This study aimed to describe what happened in the process of the pandemic in the world and in Turkey, the status of the entertainment and sports industry are analyzed in the context of literature and sectoral data and projections for the future are put forward. In the study, the media and entertainment sector are handled under the same heading with their different dimensions, the interaction of the sectors and their increasing convergence are emphasized.

[Bollard, A. \(2020\)](#)

[Globalisation in the Time of Coronavirus: or One Hundred Years of Solitude for New Zealand? Policy Quarterly. 16\(3\).](#)

[DOI: 10.26686/pq.v16i3.6549](#)

This article considers the effects that the Covid-19 pandemic may have on those aspects of international commerce and trade that are most relevant to New Zealand's economic future. It covers changes to international political economy and the likely impacts of the huge international policy response. Businesses are starting to trade differently, people no longer cross borders so freely, there is changed use of technology, there are challenges for the financial sector, and governments are taking on new roles and issuing huge amounts of debt. Bilateral trade tensions are becoming more acute. People are going to have to live through disruption and pay for this pandemic.

[Dada, M.A. \(2020\)](#)

[COVID-19 Outbreak and Behavioral Maladjustments: A Shift from a Highly Globalized World to a Strange World of Unique Isolationism. Journal of Economics and Behavioral Studies. 12\(4 \(J\)\), p. 43-58.](#)

[10.22610/jebs.v12i4\(J\).3081](#)

The outbreak popularly called COVID-19 which sneaked into the world system generally believed to have originated from China in the city of Wuhan towards the last quarter of the year 2019 in a manner yet to be unfold by the world powers has been judged to be a great threat to human activities and coexistence. The World Health Organization declared COVID-19 as a global pandemic between February and March, year 2020 and since then it has been a strange world. This paper examined the socio-economic changes and behavioral maladjustments resulting from this deadly disease. The demand and supply shocks as well as the use of fiscal stimulus from different countries and how some key variables respond are well analyzed and structured. The paper underlying some of the damages done to the socio-economic lives of people across the globe and highlight some recovery strategies and future prospects. It recommends spirituality as a winning strategy against carnality. The conclusion was drawn by emphasizing the supremacy of God in the fact that a microbe of invisible property could hastily change our world of global village to a strange world of isolated cities.

[Razin, A. \(2021\)](#)

Globalization and Global Crises: Rest of the World vs. Israel. National Bureau of Economic Research. Paper No. w28339.

URL: <https://www.nber.org/papers/w28339>

Post WWII globalization forces are facing headwinds by a cascade of global crises – the “The Great Recession” and the “The Pandemic Recession”. The paper provides an overview of the new globalization trends in the world and in Israel, emphasizing the role of global crises, the Global Financial Crisis, and the Pandemic Crisis, in changing globalization long-term trends.

Grabner, C., Heimberg, P., Kapeller, J., et al. (2020)

Structural change in times of increasing openness: assessing path dependency in European economic integration. *Journal of Evolutionary Economics*, 30, p. 1467–1495.

URL:

https://www.researchgate.net/publication/323224914_Structural_change_in_times_of_increasing_openness_assessing_path_dependency_in_European_economic_integration.

This paper analyzes the dynamics of structural polarization and macroeconomic convergence vs. divergence in the context of European integration, where the latter is understood primarily as an increase in economic and financial openness.

Orenbach, M., Baumann, A., et al. (2020)

Autarky: closing controlled channels with self-paging enclaves. *Proceedings of the Fifteenth European Conference on Computer Systems*. Heraklion, Greece, Association for Computing Machinery: Article 7.

DOI: 10.1145/3342195.3387541

As the first widely-deployed secure enclave hardware, Intel SGX shows promise as a practical basis for confidential cloud computing. However, side channels remain SGX's greatest security weakness. In particular, the "controlled-channel attack" on enclave page faults exploits a longstanding architectural side channel and still lacks effective mitigation. We propose Autarky: a set of minor, backward-compatible modifications to the SGX ISA that hide an enclave's page access trace from the host, and give the enclave full control over its page faults. A trusted library OS implements an enclave self-paging policy. We prototype Autarky on current SGX hardware and the Graphene library OS, implementing three paging schemes: a fast software oblivious RAM system made practical by leveraging the proposed ISA, a novel page cluster abstraction for application-aware secure self-paging, and a rate-limiting paging mechanism for unmodified binaries. Overall, Autarky provides a comprehensive defense for controlled-channel attacks which supports efficient secure demand paging, and adds no overheads in page-fault free execution. Austrian theorists as a useful analytic baseline on which to build catallactic (market process) theory, which has included a theory of entrepreneurship. But so far, the autarkic economy has been examined almost exclusively in this way. In this article it is argued that the autarkic economy must be brought forward in our theorizing to be understood not as a mere analytic tool, but as a real and significant aspect of praxeology. It is proposed that catallaxy and autarky be understood as substitutes, complements, and even competitors. Extending Austrian theorizing of the autarkic economy, the entrepreneurial function within autarkic economies is examined and elaborated. It is shown that, far from only a catallactic role, the entrepreneurial function is prominent within the autarkic economy also, in which the entrepreneur plays a significant role in augmenting individual lifestyles and, thus, total economic development.

Исторические проекции автаркии

Документально подтвержденное стремление к автаркии имело место еще в Древней Греции: автаркия была идеальным состоянием города-государства. На протяжении веков в основе хозяйственной жизни лежали идеи экономики Аристотеля - изолированной системы, ориентированной на домовладение. Помимо экономических причин, к изоляции

приводили политические, социальные, культурные события. Так, с 1639 по 1853 год Япония придерживалась почти полной изоляции от любых экономических и культурных обменов с остальным миром в ответ на предполагаемую угрозу, исходящую от новообращенных христиан и их сторонников. В XIX веке известность получили протекционистские меры Китая, Мадагаскара и других стран, отвергших свободную торговлю и опиравшихся на протекционизм в надежде на собственный экономический потенциал.

На примере Ирана видно, что уходящее в глубь веков стремление этой страны к обособлению опирается на известное в персидской культуре положение о том, что остальной мир нуждается в Иране больше, чем Иран нуждается в остальном мире [Mathee, см. далее]. Идея Ирана как гордой и уверенной в себе нации, способной позаботиться о своих собственных потребностях и готовой противостоять посторонним, стала широко известной еще в начале XX века.

История развития ВПК даже в странах, стремящихся в целом к открытости, дает многочисленные примеры автаркических подходов [Logan, см. далее]. Также отметим, что исследователи по истории автаркии часто обращаются к реалиям авторитарных режимов XX века [Garofalo, Malet, Perugini, Russ, см. далее].

Glowark, E. (2021)

The Christianization of Kyushu: A World-Historical Interpretation of the Jesuit Mission to Japan, 1549-1650

URL: <https://scholarsbank.uoregon.edu/xmlui/handle/1794/26899>

The dissertation locates Japan's place in the world-historical phenomenon of Christianization. Intended as a case study in the spread of Christianity across cultures, it uses the Japanese experience with Jesuit missionary activity to highlight the shared features of Christianization as a "connective" world-historical process over centuries. The project aims: 1. To overturn notions of Japan as an isolated society with negligible participation in world history during the premodern period, focusing specifically on its so-called "Christian Century;" and 2. To explore Japan's place in the inherently polymorphic universe of Christianity that was extended through missionization. With this dissertation, I shed light on how the religion there and elsewhere permits us to see "connections," across time and space, in how we think about seemingly disparate cultures such as the Japanese, the Nahuas, the ancient Romans, and medieval Germanic peoples. Moreover, it demonstrates how early modern Catholicism resonated with Japanese religious sensibilities. Employing four parts, three of which mirror the ecclesiological concept of the Communion of Saints, I show how the Japanese fully engaged Christianization on Kyushu. Part I, "The Mechanics of Christianization," outlines for the first time how this world-historical process played out on Kyushu specifically. Its three chapters focus on three common aspects of the process of Christianization world-historically, namely "missionization," "community," and "tension." Part II, "The Church Militant," examines how Christian forms of exorcism acted as a "native mode of persuasion" in a variety of premodern societies, Japan included. Japanese Christians embraced and practiced Catholic exorcism on their own, thus greatly facilitating the transplantation of the religion. Part III, "The Church Suffering," focuses on how the Christian living and the Christian dead constituted one community on Kyushu. Through "the praxis of purgatory," which included penitential practices, suffrages, and indulgences, Japanese Christians cared for their own "future dead selves" and their dead family members and coreligionists in the afterlife. Part IV, "The Church Triumphant," shows how the translation of relics was an important part of establishing sacred landscapes in both Buddhism and Christianity. On Kyushu, Japanese Christians carried relics as personal loci of sacrality in addition to those enshrined in churches.

Matthee, R. (2020)

Neither Eastern nor Western, Iranian: How the Quest for Self-Sufficiency Helped Shape Iran's Modern Nationalism. *Journal of Persianate Studies*.13 (1), p. 59–104.

DOI: 10.1163/18747167-BJA10001.

This essay identifies an historically-enduring Iranian insistence on self-sufficiency—which can be summed up, in a superordinate manner, as the idea that the world needs Iran more than Iran needs the world. Economically, this insistence is reflected in a (rhetorical) quest for self-reliance in production; politically, it tends to be articulated in an instinctive anti-(neo)colonial, often defiant stance vis-à-vis the world; and culturally, it is often expressed as a claim to civilizational grandeur, indeed uniqueness. The origins of this conceit have to be sought in antecedents combining economic perceptions with cultural assumptions that long precede Western imperialism and modern nationalism. These, in turn, are grounded in patterns of thought that reflect specific pre-modern physical and geopolitical conditions which go back to pre-Islamic notions of paradisiacal abundance as much as to economic realities encapsulated by Aristotle's idea(l) of the self-sufficient household. I also argue that the notion evolved over time even as it retained its moral core. What was an instinctive dismissal of the outside world as dispensable, after 1800 became a self-conscious stance against foreign encroachment, real or imagined. In the course of the twentieth century, a quest for material autarky coupled with an insistence on cultural exceptionalism became an integral part of modern Iranian nationalism.

Торкановский, Е. П. (2019)

В защиту автаркии как современного способа национального экономического развития. *Экономические отношения*. 9(1), с. 157-169.

DOI: 10.18334/eo.9.1.40470

Статья обосновывает стремление к экономической автономии и автаркии как ее крайнему проявлению и естественному направлению национального экономического развития. Раскрыты факторы, обуславливающие тенденцию к автаркии наряду со стремлением к свободе торговли и разделению труда. Дана характеристика факторов, способствующих отказу от свободной торговли. Сделан ряд предположений относительно возможных последствий усиления автаркических тенденций в мировой экономике и политике.

Экономические связи России с остальным миром в настоящее время переживают стрессовое состояние из-за санкций, введенных рядом стран. Несмотря на достаточно привлекательные условия ведения бизнеса, емкий рынок, наличие материальных и трудовых ресурсов, роль нашей страны в глобальной экономике снижается. Такое внешнее воздействие на международные экономические отношения страна переживает не впервые. Достаточно вспомнить ограничения КОКОМ или отказ капиталистических стран осуществлять поставки в социалистическую Россию после гражданской войны. В этой ситуации особую актуальность приобретают вопросы, насколько значимы внешние связи для любой страны, и как связано международное разделение труда с национальным развитием.

Logan, W. A. T. (2022)

A Technological History of Cold-War India, 1947–1969. *Autarky and Foreign Aid*.

DOI: 10.1007/978-3-030-78767-7

Decenters history of technology away from Europe and North American. Examines how indigenization programs contributed to the industrialization of India. Provides wide geographical and chronological scope of Nehruvian development.

This well-written book provides an insightful and succinct “technological history” of development in early post-independence India under the challenges posed by the Cold

War. This nuanced study, drawing on a wide range of materials, persuasively discusses how autarky as practiced with reference to technological indigenization conflicted with the economic and political realities of the Cold War world. Indeed, for those interested in better understanding the India of today, in particular, the changes in the Indian economy, this book provides much food for thought. An important addition to South Asian and India studies.'

Garofalo, P., Farabegoli, G. (2019)

Churches without bells in Fascist Italy. *Modern Italy*. 24(3), p. 245-264.

DOI: [10.1017/mit.2018.48](https://doi.org/10.1017/mit.2018.48)

This article examines how Fascism's economic autarky impacted on church construction in the late 1930s. The shortage of copper in Italy due to sanctions imposed by the League of Nations and the ensuing Italian policy of self-sufficiency led to the installation of loudspeakers instead of bells in newly erected churches. The amplified sound of recordings and of tubular bells could be heard from far greater distances than that of traditional bells. Although these technologies disregarded the Catholic Church's directives on utilising modern technical equipment in liturgy, their use was tolerated because of the economic circumstances. Indeed, some clergy endorsed these sound systems as a means of modernising the Church and as an act of patriotism. The practice, however, risked conflating ecclesiastical and Fascist broadcasts since the use of loudspeakers for political propaganda was widespread. In one case, the Fascist anthem Giovinezza was played regularly from a church belfry: after the war, furious citizens destroyed this audio system. The decision by dioceses as to whether to adopt technological alternatives to bells exposed the conflicting positions within the Church towards both modernity and the Regime.

Malet, A. (2019)

Science and power: Francoist Spain (1939–1975) as a case study. *Centaurus*, 61(1-2), p. 111-132.

DOI: [10.1111/1600-0498.12210](https://doi.org/10.1111/1600-0498.12210)

This paper takes Franco's Spain to be a powerful case study for analyzing the ways in which power shapes science and technology and is shaped by them in return. Spain was the last country in Western Europe to establish closer links with any of the international cooperative institutions emerging after WWII. As such, developments internal to Spanish society were quite autonomous and relatively free from foreign influences. The paper focuses first on the brand new, powerful institution that the Francoist regime created to promote scientific research under tight political control, the Consejo Superior de Investigaciones Científicas. Next it turns to applied science and technology, top priorities for the regime's state-supported programs of industrialization. They were implemented through the politically and financially powerful Instituto Nacional de Industria. Using diplomatic sources, the paper next argues that, until the late 1950s, Spain maintained substantial political and economic isolation essentially because the regime bet on autarkic policies and a model of largely isolated development. In this model, it was crucial for the regime to develop its own technological and scientific resources. Finally, the paper examines how the regime fostered a new Spanish identity in which science had a new role.

Krasnodębski, M. (2021)

Upscaling forest waste the french quest for fuel autarky after world war I. *Technology and Culture*. 62(1), p. 105-127.

DOI: [10.1353/tech.2021.0004](https://doi.org/10.1353/tech.2021.0004)

After World War I, many European nations no longer wanted to depend on foreign fossil fuels and sought national renewable sources. In France, inhabitants of the forest regions of south-west advocated wood as a technological alternative for fuel, envisaging the transformation of forest waste into an inexhaustible energy source for cars and trucks.

Despite the lobbying efforts of political and military leaders, wood fuels failed to gain enough momentum in France. Because of the huge variety of production techniques required specially adapted machines, the challenge to the primacy of petroleum fell short. It mirrors the current debates on establishing a post-fossil fuel world as it shows that the overabundance of technological alternatives may prevent any one of them from reaching a critical mass. The article engages in a dialogue between history of technology and sustainability studies by trying to understand the promises and failures of the past alternatives to the petroleum-based technological paradigm.

Perugini, M. (2020)

In search of stability. Montecatini and the Italian chemical industry between crisis and change (1929-1940). *Studi Storici*, 61(4), p. 873-903.

DOI: [10.7375/98831](https://doi.org/10.7375/98831)

This article reviews the history of Montecatini between 1929 and 1940. The impact of the Great Crisis on the strategies of the Italian chemical industry and its leading company is a crucial but still neglected episode in Italy's industrial history. The disintegration of international markets forced Montecatini to abandon the internationalization strategy pursued during the 1920s and to focus on the internal market. For Montecatini, increasing State intervention during the 1930s, which culminated in the launching of the «autarky plans» in 1937, presented an opportunity to shift its «technological trajectory» from its dependence on hydroelectricity towards the use of coal and coal byproducts, in particular coke oven gas. In spite of the fascist regime's apparent goal to reduce imports and achieve economic self-sufficiency, the scaling-up of production and the development of new products and processes was achieved through the use of imported coal.

Carreras, A., Tafunell, X. (2021)

The Isolation from the International Economy: Civil War and Autarky (1936-1951). In *Between Empire and Globalization*. Palgrave Macmillan, Cham. p. 135-154.

URL: [10.1007/978-3-030-60504-9_6](https://doi.org/10.1007/978-3-030-60504-9_6)

Spain was a closed economy during fifteen years. Initially it was so because of the Civil War—social revolution and war economy included. During Second World War closing was radical as foreign currency was very scarce and military alliances very risky. The new regime deployed a completely closed economy—an autarky—that was defined as a permanent and strategic choice for Spain. Consequently, Spain did not enjoy most benefits of post-war reconstruction, contrary to most Western European countries. This long autarky made a strong imprint in Spanish economy, difficult to overcome. It impoverished the country, it induced regressive distribution and increased inequality. Market intervention was widespread as well as black markets and rationing. The exchange rate was deeply altered, as never before nor after.

Kupchan, C. A. (2020)

Isolationism: A History of America's Efforts to Shield Itself from the World. USA, Oxford University Press. 446 p.

DOI: [10.1080/23739770.2021.1873528](https://doi.org/10.1080/23739770.2021.1873528)

Charles A. Kupchan is Professor of International Affairs in the School of Foreign Service and Government Department at Georgetown University, and Senior Fellow at the Council on Foreign Relations. He was Special Assistant to the President in the US National Security Council during the Obama administration, and also a member of that body during the Clinton years.

With this well-written and interesting book on a traditionally important subject— isolationism in American history and as an ongoing issue—Prof. Kupchan has made a significant contribution to the literature on international affairs. One obvious merit of this volume is that it provides an inside perspective on the development of recent US foreign policy. Kupchan observes that until Pearl Harbor, “isolationism was to America’s identity and sense of purpose what internationalism has been since World War II” (p. 18).

America was isolationist partly because of geography but also because it thought itself special and worthy—a “shining light to the world”—a status it could maintain through self-imposed insulation from the perceived corruption, quarrels, and conflicts of the so-called “old world.” Among various topics, Kupchan explores the objective of preserving social homogeneity as one of the historic pillars of American isolationism. He also discusses some of the anomalous departures from the policy of isolation that occurred even before America’s monumental turn in trajectory had begun in 1941. The author notes that when the British “reasserted control over the Falkland Islands in 1833 and established British Honduras as a crown colony in 1862— moves that violated the spirit and letter of the Monroe Doctrine —the United States did nothing.” It did not even respond symbolically or rhetorically, apparently, nor did Washington answer calls for assistance from the fledgling Latin American republics at the time (p. 116). Kupchan recalls the fact that little Congressional enthusiasm was generated by Secretary of State William Seward’s 1867 purchase of Alaska from Russia, with one member of the House of Representatives declaring: “Those who buy what they do not want will soon want what they cannot buy.”

Russ, D. (2021)

The Ennoblement of Nature: Gleb M. Krzhizhanovskii’s Energetika and the Concept of Metabolism. *Historical Materialism*. 29 (2), 188-218.

DOI: [10.31235/osf.io/b3xy7](https://doi.org/10.31235/osf.io/b3xy7)

Post WWII globalization forces are facing headwinds in the form of global crises—the “The Great Recession” and the “The Pandemic Recession”. Israel’s trade and financial globalization, however, is steadily rising. The pandemic-induced slump in economic activity is deep, as consumer spending, investment spending, and export demand tumble. Central banks, tied down by the zero interest rate, resort to semi-fiscal expansionary policies. Indeed, the stabilization burden falls on fiscal policy. The paper provides an overview of the new globalization trends in the world and in Israel, with emphasis on the role of global crises, the Global Financial Crisis, and the Pandemic Crisis in changing globalization long-term trends. When the coronavirus hit, supply chains and production have been disrupted. However, the impact of the pandemic shock is not on the supply side only. On the demand side, the desire to invest has plunged, while people across the rich world are now saving much of their income. Would this short-term changes can reinforce the re-trending of the globalization, which is observed since the Global Financial Crisis? The paper focuses on globalization and provides comparative overview of experiences of the advanced economies and Israel.

Шелюбская, Н. В. (2020)

Брекзит и научно-техническая политика ЕС. *Инновации*, 9(263), с. 86-90.

DOI: [10.26310/2071-3010.2020.263.9.011](https://doi.org/10.26310/2071-3010.2020.263.9.011)

В статье рассмотрено влияние брексита на основные направления трансформации европейской научно-технической политики на примере формирования Рамочной программы ИР ЕС «Горизонт Европы». Показан эффект брексита на финансирование рамочной программы и формирование новых принципов участия в программе стран, не входящих в состав ЕС.

Martínez-San Miguel, Y., Stephens, M. (2020)

Contemporary Archipelagic Thinking: Towards New Comparative Methodologies and Disciplinary Formations. Rowman & Littlefield Publishers.

ISBN: 9781786612779

The book takes as point of departure the insights of Antonio Benítez Rojo, Derek Walcott and Edouard Glissant on how to conceptualize the Caribbean as a space in which networks of islands are constitutive of a particular epistemology or way of thinking. This rich volume takes questions that have explored the Caribbean and expands them to a global, Anthropocenic framework. This anthology explores the archipelagic as both a specific and a generalizable geo-historical and cultural formation, occurring across various planetary spaces including: the Mediterranean and Aegean Seas, the Caribbean

basin, the Malay archipelago, Oceania, and the creole islands of the Indian Ocean. As an alternative geo-formal unit, archipelagoes can interrogate epistemologies, ways of reading and thinking, and methodologies informed implicitly or explicitly by more continental paradigms and perspectives. Keeping in mind the structuring tension between land and water, and between island and mainland relations, the archipelagic focuses on the types of relations that emerge, island to island, when island groups are seen not so much as sites of exploration, identity, sociopolitical formation, and economic and cultural circulation, but also, and rather, as models. The book includes 21 chapters, a series of poems and an Afterword from both senior and junior scholars in American Studies, Archaeology, Biology, Cartography, Digital Mapping, Environmental Studies, Ethnomusicology, Geography, History, Politics, Comparative Literary and Cultural Studies, and Sociology who engage with Archipelago studies. Archipelagic Studies has become a framework with a robust intellectual genealogy. The particular strength of this handbook is the diversity of fields and theoretical approaches in the Humanities, Social Sciences and Natural Sciences that the included essays engage with. There is an editor's introduction in which they meditate about the specific contributions of the archipelagic framework in interdisciplinary analyses of multi-focal and transnational socio-political and cultural context, and in which they establish a dialogue between archipelagic thinking and network theory, assemblages, systems theory, or the study of islands, oceans and constellations.

Под гнетом санкций

Под санкциями понимается система мер, предпринимаемых субъектом международных отношений и направленных на ограничение возможностей некоего объекта. Субъектом может выступать отдельное государство, группа государств, объединённых в международную организацию (например, Ганзейский союз, Антанта). Объектом санкций может выступать государство, отрасль промышленности, компания, отдельное физическое лицо. В приведенных далее источниках субъект иногда именуется «санкционером», а объект - «целью санкций».

В последнее время интерес к санкциям заметно вырос, потому что в контексте общемирового кризиса, осложнённого пандемией, обостряются различного рода противоречия и конфликты между странами.

История санкций уходит в глубь веков, и некоторые известные события используются в приведенных источниках в качестве рабочих аналогий. Так, термин «ловушка Фукидида», обретший новую популярность в последнее время [Ефременко, см. далее], отчасти объясняет феномены применения силовых методов в международных отношениях. Действительно, планируя достичь определённых преимуществ посредством разрушения договорённостей, достигнутых ранее и обещавших выигрыш за счёт использования сравнительных преимуществ партнёров, санкционер, как правило, сталкивается с определёнными потерями и необходимостью нести затраты для решения вновь возникших задач. Санкционируемый, в свою очередь, может направить свои ресурсы на увеличение других преимуществ.

Обнадёживающим примером для стран, испытывающих санкционное давление, является ответ Китая на попытки США использовать властные возможности великой державы. План «Сделано в Китае – 2025» предусматривает не просто импортозамещение и общий технологический прорыв, но создание техноэкономической платформы глобального уровня и заявление на перехват ценностного и морального превосходства своей социально-технической модели. Моральные преимущества при этом находят выражение, в числе прочего, в успехах научно-технологического развития [Ali, см. далее]. Особо следует отметить фактор социалистического планирования в КНР.

Морально-этические, культурно-идеологические факторы являются существенной составляющей реакции на санкционное давление в Иране, Северной Корее, на Кубе [Nejat, см. далее].

Институционалисты предполагают, что санкции отражают интересы политически влиятельных групп в странах - инициаторах санкций [Кадочников, см. далее], будучи в то время нацелены на политически влиятельные группы в стране – объекте воздействия. Таким образом, ожидается, что санкции не будут затратными для фирм (и избирателей) в стране-инициаторе, но только при условии, что фирмы, уже заключившие договора с объектом санкций, не понесут больших потерь [Hofer, см. далее].

Следовательно, если, например, российские импортеры заключили достаточно долгосрочные контракты на поставку добывающего оборудования, а западные экспортеры получили разрешения от соответствующих органов в своих странах, или обе стороны гибко корректируют контракты, чтобы они были долгосрочными, западные санкции имеют очень ограниченный эффект. Экономическое воздействие ещё более нивелируется с учётом возможностей логистического маневра. Куба и Мьянма приводятся в качестве успешных исполнителей таких маневров [Crozet, см. далее].

Таким образом, применение экономических санкций будет успешным при следующих условиях: (1) затраты, понесенные политически влиятельными группами в стране «отправителя» на осуществление санкций, стремятся к своему минимуму; (2) затраты, понесенные политически влиятельными группами в стране «назначения», стремятся к максимуму; (3) политически влиятельные группы в стране отправителя получают, при прочих равных условиях, пользу от участия в режиме санкций, большую, чем пользу, получаемую от других возможных мероприятий.

В то же время исследования поведения участников взаимодействий по поводу санкций ведутся и в рамках конвенций, отличающихся по формату от «рыночного соглашения». Так, «высота уровня» отношений снижается после объявления о мерах санкционного или иного рода давления. Причём моральная ответственность ложится в первую очередь на «отправителя». Таким образом, он становится не только субъектом санкций, но и объектом за счёт эффекта отдачи. И только искусство дипломатии и медийное сопровождение позволяет широкой общественности не замечать такого положения дел. Пропаганда «отправителя», как правило, преследует цель стигматизации получателя, придания ему, помимо прочего, образа изгоя или как минимум перевода в подчиненное положение.

Тем не менее во многих научных публикациях предлагается рассматривать по отдельности субъекты и объекты санкций. Последние при этом прибегают к различным вариантам прагматичной реакции в ответ на санкционное давление. К таким вариантам относят, в частности, определение правящими элитами региональных фаворитов, импортозамещение, перераспределение торговли, переориентацию торговли в направлении более дружественных партнёров [Belín, см. далее].

Кроме того, получатель санкционного давления может попытаться «сбить спесь» с санкционера, тем или иным образом поставить под сомнение его властные полномочия. Так, Иран в качестве ответа на санкционное давление использует не только цены на нефть [Estrada, см. далее], но и свою роль религиозного центра для региона. Эта роль, а также позиция регионального лидера в других аспектах способствуют в числе прочего преодолению ограничений на передачу знаний и технологий [Nejat, см. далее].

Во многих случаях целями, как атак, так и ответных действий, оказываются лица, принимающие решения [Afanasyev, см. далее]. Они могут прибегнуть к своеобразному арбитражу, переложив часть потерь на бедное население [Мариев, см. далее].

Рукинов, М. В. (2019)

Антироссийские санкции: структура и стратегии противодействия. Управленческое консультирование. 6, с. 91-101.

DOI: 10.22394/1726-1139-2019-6-91-101

В статье выполнен анализ структуры антироссийских санкций с точки зрения их цели и используемых инструментов. Показано, что санкции направлены на ограничение притока финансов в Россию и на противодействие технологическому развитию нашей страны. Выполнен анализ политики импортозамещения как инструмента противодействия санкциям, показана ее ограниченность.

Ефременко, Д. В. (2020)

Двойная ловушка Фукидида. Россия в глобальной политике. №4 .

URL: <https://globalaffairs.ru/articles/dvojnaya-lovushka-fukidida/>

Имеется прямая поведенческая аналогия между США и Афинами периода Пелопонесской войны. Речь идёт о мощной экспансии Афин практически во всём средиземноморском регионе, злоупотреблении торговым эмбарго, фактической экспроприации Афинами общей казны, а также о поборах с союзников и последующих мерах в ходе войны, направленных на максимальную мобилизацию ресурсов. При этом Афины демонстрировали высокомерное пренебрежение недовольством тех, кто рассчитывал на их покровительство.

Рассматриваются отношения между США и Китаем, которые в период президентства Дональда Трампа перешли в стадию открытого соперничества за глобальное доминирование. Америке не удалось избежать опасности развязывания конфронтации с Китаем, о которой предупреждал американский политолог Грэм Элпсон, говоря о «ловушке Фукидида».

Кадочников, Д. В., Пушкина, Д. Б. (2019).

Экономический конфликт США и Китая через призму ключевых парадигм теории международных отношений. Journal of Institutional Studies, 11(4), p. 90-105.

DOI: 10.17835/2076-6297.2019.11.4.090-105.

Дается обзор ключевых парадигм международных отношений (реализм / неореализм, либерализм / неолиберализм, марксизм / неомарксизм и конструктивизм) в институциональном ключе, а также рассматривается текущий экономический конфликт между США и Китайской Народной Республикой с точки зрения каждой из этих парадигм.

Ali, T. M., Kiani, A. K., Malik, K., et al. (2020)

Impact of Science Technology and Innovation (STI) on Economic Growth and Development: A Case Study of Pakistan. Review of Politics and Public Policy in Emerging Economies. 2(1), p. 35-54.

URL: <https://www.researchgate.net/publication/351993401>.

The paper reports the case study research about the impact of STI on economic growth and development. 305 scientists responded the questionnaire. Out of 305, 94% (288) confirmed that STI has the impact on economic growth and economic development. In response to the 2 nd question, about the impact of their research on economic growth and development, 85 %(260) scientists supported that STI has the positive impact on economic growth.

Hofer, A. (2020)

Creating and contesting hierarchy: the punitive effect of sanctions in a horizontal

system. *Revista CIDOB d'Afers Internacionals*, 125, p. 15-37.

DOI: [10.24241/rcai.2020.125.2.15/en](https://doi.org/10.24241/rcai.2020.125.2.15/en)

Sanctions not only stigmatise the target, but create an hierarchy between those who impose punishment and those punished. Such practices go against the principle of sovereign equality and contradict the horizontal structure of the international system. When states react to sanctions, they respond not only to the imposition of stigma, but also to the inferior position in which they are placed. Targets may contest the status quo upon which sanctioners justify their authority, thereby reasserting the norms and corresponding practices they believe should be prioritized

Nigel, G.D. (2020)

Russia, the West and Sanctions. *Survival, Global Politics and Strategy*, 62(1), p. 7-28.

DOI: [10.1080/00396338.2020.1715060](https://doi.org/10.1080/00396338.2020.1715060)

The West's sanctions regime on Russia is unprecedented. Russia is the largest economy ever to be subject to major sanctions. And for the first time, the West is now the major constraint on Russia's participation in the global economy. This experience is driving adaptation and innovation in both Russian public policy and Western sanctions practice. Sanctions have reaffirmed international norms violated by Russia and probably deterred military escalation in Ukraine.

Vorotnikov, I. L., Sukhanova, I. F., Lyavina, M. Y., et al. (2019)

Economic sanctions and import substitution. *Entrepreneurship and Sustainability Issues*. 6(4), p. 1872-1883.

DOI: [10.9770/jesi.2019.6.4\(23\)](https://doi.org/10.9770/jesi.2019.6.4(23))

The losses and consequences, both for the countries imposing the sanctions and for countries under pressure, are identified. Factors affecting the distribution of losses from the imposition of economic sanctions are disclosed. The main directions of the economic sanctions content and application practice transformation in the global economy are identified.

Lee, J., Portela, C. (2020)

Evaluating the success of international sanctions: a new research agenda. *Revista CIDOB d'Afers Internacionals*. 125, p. 39-60.

DOI: [10.24241/rcai.2020.125.2.39/en](https://doi.org/10.24241/rcai.2020.125.2.39/en)

Sanctions scholarship generally considers sanctions to be "successful" when targets comply with sender' demands. This form of evaluation is inadequate. Firstly, without a robust methodology it is hard to determine whether sanctions produce compliance. Secondly, sanctions tend to pursue goals beyond those announced, which may relate to the target, the sender itself or the international system. An evaluation of the effectiveness of sanctions must identify all these goals, recognise their interrelations and measure their success with the help of interpretative method.

Crozet, M., et al. (2021)

Worth the pain? Firms' exporting behaviour to countries under sanctions

DOI: [10.1016/j.euroecorev.2021.103683](https://doi.org/10.1016/j.euroecorev.2021.103683)

New sanctions introduced in Iran and Russia significantly lowered firm-level probabilities of serving these sanctioned markets, while the (temporary) lifting of the U.S. sanctions on Cuba and the removal of sanctions against Myanmar had no or only small trade-inducing effects, respectively. Additionally, the impact of sanctions is very heterogeneous along firm dimensions and by case particularities. Firms that depend more on trade finance instruments are more strongly affected, while prior experience in the sanctioned country considerably softens the blow of sanctions, and firms can be partly immune to the sanctions effect if they are specialized in serving "crisis countries". Finally, the authors find suggestive evidence for sanctions avoidance by exporting indirectly via neighboring countries.

Giumelli, F., Hoffmann, F., Książczaková, A. (2020)

The when, what, where and why of European Union sanctions. *European Security*. 30(1), p.1-23.

DOI: 10.1080/09662839.2020.1797685

The aim of this article is to provide an up-to-date and comprehensive overview of the experience of the EU with sanctions. Specifically, it presents the results of a newly constructed database of EU autonomous sanctions constituted by 48 cases of these restrictive measures, which have been subdivided in 85 episodes. The analysis revolves around four questions that we asked in each case: when sanctions were in force, what type(s) were used, where the targets were located and why restrictive measures were imposed.

Мариев, О. С., Савин, И. В., Тепляков, Н. С. (2020)

Моделирование влияния санкций на неравенство в распределении доходов населения стран-объектов. *Экономика региона*. 16(2), с. 363-376.

DOI: 10.17059/2020-2-3

Показатели экономического роста могут быть связаны как с увеличением, так и со снижением экономического неравенства ввиду нелинейной формы их зависимости. Региональные особенности стран Африки, Северной и Южной Америки определяют предрасположенность этих стран к высокому уровню неравенства, равно как и большую продолжительность санкционных мер. Наконец, санкции не причиняют вреда богатым группам населения, так как они способны перекладывать бремя санкций на остальное население.

De Moor, T., Farjam, M., van Weeren, R., et. al. (2021)

Taking sanctioning seriously: The impact of sanctions on the resilience of historical commons in Europe. *Journal of Rural Studies*. 876, p. 181–188.

DOI: 10.1016/j.jrurstud.2021.08.009

In this article, we demonstrate, based on historical sources covering several centuries, that sanctioning was not always the preferred way of preventing or dealing with free-riding in institutions for collective action, but that the legal context is decisive to understand why commoners in some countries were using more sanctions than those in others to regulate commoners' behavior. We also show the importance of other types of rules, such as differentiated rules, which have hardly been taken into account in literature to date

Vardanjani A.R. (2020)

United States Economic Sanctions on Iran and Their Impacts on the Middle Eastern Art Market. *Arts*. 9(4), p. 132.

DOI:10.3390/arts9040132

The USs' sanctions not only impact the form of marketing exerted by dealers but also directly influence the type of artistic production. Such changes also reshape the art market in the Arab states. The study indicates how the propensity of galleries for a digitally networked economy is becoming a solution to reduce the impacts of the sanctions in order for the galleries to maintain their clientele of international collectors and dealers.

Belín, M., Hanousek, J. (2021)

Which sanctions matter? analysis of the EU/Russian sanctions of 2014. *Journal of Comparative Economics*. 49, p. 244–257.

DOI:10.1016/j.jce.2020.07.001.

Using UNCTAD/BACI bilateral flows data we take a unique opportunity to analyze both sanctions. In particular, we study the effectiveness of narrow versus broadly defined sanctions, and differences in the effectiveness of sanctions imposed on exports and imports. We show that the Russian sanctions imposed on European and American food

imports resulted in about an 8 times stronger decline in trade flows than those imposed by the EU and the US on exports of extraction equipment. These results do not appear to be driven by diversion of trade flows via non-sanctioning countries. Hence the difference in sanctions' effectiveness can be attributed to the limited retroactivity of Western sanctions, which allowed exemptions for exports made pursuant to contracts made prior to 2014.

Estrada, M. A. R., Park, D., Tahir, M., et al. (2020)

Simulations of US-Iran war and its impact on global oil price behavior. *Borsa _Istanbul Review*. 20(1),1-12.

DOI: 10.1016/j.bir.2019.11.002

The WOC-Simulator provides policymakers and researchers with a new, simple analytical tool to study the impact of war between the US and Iran on oil prices. We apply the simulator to different war scenarios between the US and Iran between 1980 and 2025. The US remains the world's only global superpower and Iran is a major oil exporter with significant regional geopolitical influence. Persistent conflict between the two countries in the Middle East, a vital oil-producing region, may disrupt smooth flow of global oil supplies and thus destabilize global oil prices.

Zhiryaeva, E. V., Svetlov, N. M. (2020)

The effect of sanctions on Russian agricultural imports. *St Petersburg University Journal of Economic Studies*. 36(4), p. 653–674.

10.21638/spbu05.2020.405.

In the presence of the embargo the gap in the average imports per unit of the supplier's GDP between the two groups is wider. This is a consequence of the emergence of a new trade barrier. This gap allows to indirectly quantify the trade bans via their tariff equivalent. In this study the methodology is applied to the case of food and agricultural imports. The hypothesis of the study is that the impact of the embargo on the food and agricultural imports does not exceed that of tariff and phytosanitary measures. The study rejects this hypothesis and concludes that the embargo establishes a prohibitive level of protection.

Nejat, M., Bahmani M. (2020)

The economic impacts of foreign direct investment in oil and gas sector: A CGE analysis for Iranian economy. *Energy Strategy Reviews*. 32, 100579.

DOI: 10.1016/j.esr.2020.100579

The current research has tried to study the effects of FDI in the OIG sector on Iran's economy using a regional CGE model. The results showed that if FDI does not lead to productivity spillover, it causes Dutch disease in the economy of Iran. Production and employment have decreased in tradable and increased in non-tradable sectors. If FDI improves productivity of the firms, the impacts of Dutch disease will be reduced or eliminated. Therefore, production will be improved in all sectors, and consumer price index will decrease. In this regard, the absorptive capacity of domestic firms plays an important role in the extent of technology spillover and finally reducing the impact of Dutch disease.

Afanasyev, D. O., Fedorova, E., Ledyeva, S. (2021)

Strength of words: Donald Trump's tweets, sanctions and Russia's ruble, *Journal of Economic Behavior and Organization*, 184, p. 253–277.

DOI: 10.1016/j.jebo.2021.02.002

Using three-stepped empirical framework, we find that escalation of negative sentiment of Trump's Russia-related tweets leads to ruble's depreciation (4–10%) in short-term periods (around 3 days). Though these episodes tend to coincide with imposition or announcement of US sanctions, we demonstrate that US sanctions that were not accompanied by negative tweets of Donald Trump, have not caused ruble's

depreciation. This highlights the role of emotional factors in economic decision-making behavior.

Yokabel, A. (2021)

The Effect of International Organized Punishment of Foreign Policy: A study on the effects of sanctions imposed against the Government of Zimbabwe between 2002-2020. Independent thesis. Basic level (degree of Bachelor), Linnaeus University, Faculty of Social Sciences, Department of Political Science. 52 p.

URL: <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1533882&dswid=7093>

Sanctions have challenged the Government of Zimbabwe's response to economic crises, unemployment and polarisation of internal politics together with many other outcomes. However, the ZANU-PF leadership have surprisingly gained tremendous support in the south African region in their anti-imperialistic fight against the west. In addition, this study questions and criticizes the imposition of sanctions upon weaker states by wealthy and dominant nations in world politics. To support the argument that sanctions operate in contradiction to their intentions and purposes, a detailed empirical examination and analysis of these four categories will be presented: political effects, economy, internal conflict and policy making.

Zhukov, S. V., Reznikova, O. B. (2020)

Iran in the Global Oil Market. Herald of the Russian Academy of Sciences. 90(6): p.708-717.

DOI: [10.1134/S1019331620060106](https://doi.org/10.1134/S1019331620060106)

Iran is the world's fourth largest holder of oil reserves, and the costs of producing Iranian oil are relatively low. The dynamics of oil production has a pronounced cyclical character, and these cycles are set by political factors exogenous for the oil sector. The peak was reached in 1974, and since then Iran's share in world oil production has declined. The authors show that, in a series of powerful exogenous shocks, unilateral and multilateral sanctions have had a strong negative impact on the dynamics of Iranian oil production. The long-term negative effects of the sanctions significantly outweigh the short-term ones. Crucially, owing to the sanctions, the technological level of the Iranian oil sector remains extremely low. Global energy companies and banks refuse to cooperate with Iranian counterparties because the expanding practice of extraterritorial application of US sanctions has turned Iranian hydrocarbons into a "toxic asset." The countries of the Asia – Pacific region that continue to import Iranian oil under the sanctions have become able to establish favorable terms of contracts. Iranian oil is purchased at a price discount for restricted and/or nonconvertible currencies, often in exchange for counterbarter deliveries of goods. With the accelerating race to monetize hydrocarbon reserves and the approaching global peak in oil demand, it is more likely that a significant portion of commercially competitive Iranian oil will remain in the ground.

В поисках технологической самодостаточности

В экономическом плане стремление к автаркии выражается в усилиях (либо риторике), направленных на достижение полной технологической самодостаточности (технонационализм, импортозамещение). Динамика государственного участия в экономической жизни и степень проявления автаркических тенденций зависят и от страны, и от конкретной отрасли. Так, оборонная политика и промышленность Европейского союза движутся по пути развития межстрановой интеграции и кооперации. Напротив, США, Великобритания и Турция в развитии оборонных отраслей движутся в сторону автаркии. Эти три страны объявили о государственных мерах поддержки оборонной промышленности. В особенности это заметно при сопоставлении планов НИОКР КНР с планами, принятыми в ЕС. Следует уточнить, что оборонные проекты высоких технологий с опорой на собственные силы сопряжены с высокими издержками. С одной стороны, государство затрачивает большие средства, развивая внутренние

мощности для самодостаточного производства вооружений, а с другой стороны - оно рискует потерять доступ к глобальным трендам технологического развития. Как это не раз бывало, такие обстоятельства могут привести к напрасной трате усилий и ресурсов на «изобретение велосипеда» [Clemens, см. далее]. Успех «оборонной автаркии» в первую очередь зависит от трех факторов: (а) доли оборонного бюджета, расходуемой на военные НИОКР; (б) доли, расходуемой на закупку вооружений; (в) степени диверсификации линеек продуктов, предназначенных для внутреннего и международного рынков. Даже несмотря на то, что «оборонная автаркия» не является необходимым условием выживания, некоторые страны с сильной открытой экономикой стремятся к созданию самодостаточной базы оборонно-промышленного комплекса для того, чтобы уменьшить влияние стран – поставщиков оружия. Еще бóльшую мотивацию к созданию подобной базы проявляют такие страны, как Турция, Иран и Украина [Kvamladze, см. далее]. Цена успешного поддержания самодостаточности может оказаться высокой, что видно на примере Китая. Китай стремится не только догнать, но и обойти мировых лидеров в области научных исследований и инноваций. Цель Китая – покончить с технологической зависимостью от США и других развитых стран. В надежде достигнуть научно-технологической самостоятельности и самодостаточности Китай увеличил расходы на НИОКР с 327,8 млрд долл. в 2019 г. до рекордной суммы 378 млрд. долл. в 2020 году (США в 2019 году потратили на эти цели 583,5 млрд долл.). При этом объявлены области, в которых технологическая самодостаточность должна быть достигнута в первую очередь. Это исследования мозга, искусственный интеллект, квантовая информация, геномика, клиническая медицина, исследования дальнего космоса и глубоководных районов. Кроме того, при оценке продуктивности ученых будет уменьшена роль наукометрических показателей [Li, см. далее].

Примечательно, что поиск баланса между технологическим суверенитетом и издержками изоляции восходит к классическим работам прошлого века. Так, в известной статье Ф.Р.Сагасты¹ баланс двух процессов рассматривается в целях оптимизации научно-технологического развития развивающихся стран Латинской Америки и Африки, испытывающих тревогу в отношении перспектив своего научного суверенитета. Оптимальная модель предполагает создание условий для технологической самодостаточности, где это необходимо, и всемерное стимулирование международных научных коллабораций там, где это возможно. Задачу обеспечения технологической самодостаточности решают при организации оборонных исследований и разработок даже страны с открытой экономикой.

В политическом плане инстинктивную антиколониальную позицию по отношению к остальным странам занимают, как правило, развивающиеся и стремящиеся к самодостаточности страны.

Существует и важный «неполитический» аспект. Так, понятие энергетической (коммунальной) самодостаточности активно развивается в работах по проблеме развития домохозяйств и отдельных поселений (например, в работах [van Schijndel, Terhoeve]). Экологический аспект коммунальной самодостаточности отражен в работах [Torrijos, Beauchampet] и других.

Матвеев, В.В., Тимофеева, С.А. (2019)

Оценка проблем и перспектив развития нефтяной и газовой отрасли России в современных геоэкономических условиях. Экономические и гуманитарные науки, 4, с.65-78.

¹ Sagasti, F.R. (1976). Technological self-reliance and cooperation among Third World countries // *World Development*. V. 4. No. 10–11. Pp. 939-946. DOI: 10.1016/0305-750X(76)90083-8.

URL:

http://oreluniver.ru/public/file/science/journal/eign/archive/ecgum_4_2019_.pdf#page=22

Дана характеристика деятельности российских компаний нефтяной и газовой отрасли по снижению зависимости от иностранного оборудования и технологий. Проведенный анализ позволяет авторам сделать вывод о потенциальном будущем российской нефтяной и газовой отрасли.

Sun, X. (2020)

What enables technological self-reliance? Theoretical discussion and comparative case study. *Innovative Capabilities and the Globalization of Chinese Firms*, Edward Elgar Publishing, p. 76-95.

DOI: 10.4337/9781786434487.00010

The author provides a conceptual discussion to answer the question, What enables technological self-reliance for indigenous innovation? , as well as empirical studies of three complex product industries in China. This empirical analysis of telecom equipment, concrete machinery and diesel engines helps explore what technological self-reliance means at the sectoral level. The chapter argues that the evolution of embedded demand and the accumulation of national technological capability in a sector can help determine the relative reliance upon imported technology and indigenous innovation. Thus, this chapter proposes that technological self-reliance, as an independent concept which depicts the middle-stage between technological dependence and innovating, is a useful tool to understand the logic and paths of capability building in catching-up countries such as China.

Terhoeve, T. C. (2020)

Researching the willingness of island residents to become self-sufficient: Deploying Discrete Choice Models on Schiermonnikoog.

URL: <http://resolver.tudelft.nl/uuid:3acab98c-9f28-4acf-9c87-c919bf105908>

Schiermonnikoog, just as a lot of other islands worldwide, aims to become energy self-sufficient by 2025. This requires major changes to the current electricity system. As it is desirable to involve the local population to create support for energy self-sufficiency, this paper aims to research the trade-offs that island residents are willing to make to become self-sufficient. This trade-off is formulated as the trade-off between energy self-sufficiency and energy security (consisting of availability, affordability and acceptability). From the results of the deployment of a choice model on Schiermonnikoog it can be concluded that island residents are willing to trade-off (to a certain extent) affordability and availability against self-sufficiency. When it comes to acceptability however, it turns out that island residents very negatively value the deployment of large renewable electricity plants on their island and are therefore not willing to trade-off acceptability against self-sufficiency.

Tsikin, A. M. (2020)

Antinomy of Self-Sufficiency and Openness of the Russian Economy. Human and Technological Progress Towards the Socio-Economic Paradigm of the Future. In: *The (Post)Covid Era: The Middle Class in Focus*. Praha: TOPAZ.

DOI: 10.1515/9783110692082-001

A broad middle class and strong family businesses form the backbone of the social market economic model. In Germany, this economic system is primarily associated with Ludwig Erhard, the longtime Federal Minister of Economics and later also the Federal Chancellor. Under his economic and political leadership, the West Germans experienced the so-called 'economic miracle:' from the ruins of the Second World War a prospering economic life developed again, combined with strong social security, or as the title of the book published by Ludwig Erhard in 1957 says: Prosperity for All. The fact that I feel a special closeness to Ludwig Erhard is not only because he also comes from my Franconian homeland, but I am convinced that his views can still provide helpful guidance even in our times of globalisation and digitization. As a European politician, I

am very pleased that Erhard's goals have been achieved at the European level. The term social market economy has long been a red flag for representatives of pure market capitalism. Article 3 of the Lisbon Treaty currently stipulates, however, that the European Union has set itself the goal of 'a highly competitive social market economy that aims at full employment and social progress.' Such an economic system requires responsible entrepreneurs. There is undoubtedly a great strength in family businesses: company owners who, in the event of crises, do not have to fall back on public money but rely on their private assets. They consequently make their business decisions with great responsibility. The pressing need of that approach is becoming more visible in economically uncertain times, such as the current coronavirus pandemic.

Heidbrink, I. (2021)

Natural, artificial or imported? Ice supplies for the German distant-water fisheries as an example of renewable vs. fossil-fuel based supplies. *International Journal of Maritime History*. 32(4), p. 848-862.

DOI: 10.1177/0843871420977960

From the early decades of the twentieth century the distant-water fishing fleets relied more or less completely on the use of artificially manufactured ice for the preservation of their catches. Large-scale fossil-fuel powered ice factories in the main European fishing ports provided the ice taken onboard trawlers before they left port for the fishing trip. When the fishing grounds of the Barents Sea and the Svalbard region were developed in the 1930s, bunker capacities of trawlers were no longer sufficient for a journey without re-bunkering coal or ice. Northern Norwegian ports therefore became regularly used as bunker stations for coal and ice, with huge natural ice factories being developed in northern Norway for the supply of trawlers. Those with interests in artificial ice production in continental Europe, particularly in Bremerhaven/Geestemünde, started a campaign against the use of natural ice based on the argument that natural ice was unsanitary and would cause bacterial contamination of the fish. Several authorities became involved and finally an expedition by the Reichskuratorium für Technik in der Landwirtschaft was organized to investigate the issue of bacterial contamination of ice manufactured in northern Norway. With the findings of this expedition clearly showing that there was no contamination issue with the natural ice, it became obvious that the whole campaign against natural ice was not guided by quality concerns, but by the commercial interests of German artificial ice producers. In the end, the whole story can be understood as a key example of how a fossil-fuel powered industry tried to push a competitor using a renewable resource (natural ice) out of the market, and how certain authorities were complicit in this attempt.

Li, D., Zhu, C. (2021)

Logical Interpretation of China's Science and Technology Development Strategy in the New Era. *Philosophy Study*, 11(9), p. 677-682.

DOI: 10.17265/2159-5313/2021.09.004

It has been recognized that self-reliance and self-improvement of science and technology is a necessary choice of taking the independent innovation path with Chinese characteristics in the new era, which provides strategic support for the comprehensive construction of a modern socialist country. Containing the theoretical truth of the Chinese Marxist view of science and technology in the 21st century, it follows the 70-year development path of science and technology in New China, and responds to the scientific and technological strategic choice of building a modern socialist country in an all-round way in the new era. This is not only a theoretical deepening of General Secretary Xi Jinping's important statement on scientific and technological innovation, but also a practical guide for China to implement scientific and technological innovation in the new era.

Clemens, C. (2020)

The discourse of the Maven Project - a technological nationalist strategy to enforce hegemony? *Enschede University of Twente*. 2020.

URL: <http://purl.utwente.nl/essays/82387>

Technological nationalist discourses can present strategies to enforce hegemony and in practice impede democratic deliberative processes. Worryingly, scholars increasingly notice analogies between discourses of the former technological nationalist discourse of the Manhattan Project and those accompanying contemporary AI warfare technology projects, like the Maven Project. This raises the question to what extent the discourse of the Maven Project is a technological nationalist one. The question is answered by carving out the conceptual traits of technological nationalism and thereupon deploying a Critical Discourse Analysis (CDA). Thereby, the collected research data consists of official documents like press releases and interview transcripts, as well as of inter alia newspaper articles, corporation statements and consultancy reports. Eventually, the research reveals that the discourse of the Maven Project is invisibly imposed on the American citizens as an ideology, which enables a group of American defense policymakers involved in the Maven Project to reinforce power relationships. This manifests itself in the discourse's function to prevent public scrutiny over their policymaking on the one hand and to force technology companies into cooperations with the Department of Defense (DoD) on the other.

Ali T. M., Kiani A.K., Malik K., et al (2020)

Impact of Science Technology and Innovation (STI) on Economic Growth and Development: A Case Study of Pakistan.

Review of Politics and Public Policy in Emerging Economies. 2(1), p. 35-54.

URL: <https://www.researchgate.net/publication/351993401>.

The study reports the case study research about the impact of STI on economic growth and development. 305 scientists responded the questionnaire. Out of 305, 94% (288) confirmed that STI has the impact on economic growth and economic development. In response to the 2nd question, about the impact of their research on economic growth and development, 85 % (260) scientists supported that STI has the positive impact on economic growth. The STI system of Pakistan is also discussed and found that STI system in Pakistan is very weak. To improve STI system of Pakistan, there is dire need of long-term STI policy. Therefore, at the end of the study on the basis of survey results and STI capacity indicator, the policy recommendations and implications of the study are presented. These recommendations are very useful for STI policy makers and planners for Pakistan as well as developing countries, to improve STI situation

Kvamladze, T. (2020)

Feasibility of defense autarky: comparative case studies of Turkey, Iran, and Ukraine.

URL: <http://hdl.handle.net/10945/65386>

This essay identifies an historically-enduring Iranian insistence on self-sufficiency—which can be summed up, in a superordinate manner, as the idea that the world needs Iran more than Iran needs the world. Economically, this insistence is reflected in a (rhetorical) quest for self-reliance in production; politically, it tends to be articulated in an instinctive anti-(neo)colonial, often defiant stance vis-a-vis the world; and culturally, it is often expressed as a claim to civilizational grandeur, indeed uniqueness. The origins of this conceit have to be sought in antecedents combining economic perceptions with cultural assumptions that long precede Western imperialism and modern nationalism. These, in turn, are grounded in patterns of thought that reflect specific pre-modern physical and geopolitical conditions which go back to pre-Islamic notions of paradisiacal abundance as much as to economic realities encapsulated by Aristotle's idea(l) of the self-sufficient household. I also argue that the notion evolved over time even as it retained its moral core. What was an instinctive dismissal of the outside world as dispensable, after 1800 became a self-conscious stance against foreign encroachment, real or imagined. In the course of the twentieth century, a quest for material autarky coupled with an insistence on cultural exceptionalism became an integral part of modern Iranian nationalism.

Blank, S. (2020)

Can Russia Sustain Its Defence Buildup? In: Putin's Russia. S. Rosenfeld, ed.: 263-288.

DOI: [10.1142/9789811212680_0009](https://doi.org/10.1142/9789811212680_0009)

Virtually every political scientist on Russia and the USSR has noted that an excessive defence burden was a major if not the principal cause for the collapse of the Soviet economy. Moreover, the vast majority of those analysts who predicted an upheaval after Putin pointed to the overall stagnation of the Russian economy — which appears to be an indisputable fact since there has been almost no growth since 2008 to speak of — as the likely culprit of that denouement if it reoccurs. In the light of President Putin's most recent annual address to the Russian Duma, an address that bristled with nuclear threats and at the same time with extraordinarily ambitious economic promises, it is tempting to see the latter as virtually unattainable (which is probably true) and the former as signs of the excessive military burden on the economy that will ultimately cause it to crash ...

James, J. (2021)

Conventional Military Modernization in China and India: A Comparative Historical Analysis. 248 p.

URL:

https://etd.ohiolink.edu/apexprod/rws_olink/r/1501/10?clear=10&p10_accession_num=ucin1627662871990976

This dissertation examines China's and India's military modernization since 1980 demonstrated by advancements in major weapons systems. It examines the impact of four key variables on military modernization—two demand-side variables, i.e. the security threat environment and the obsolescence of existing military forces, and two supply-side variables, i.e. military industrial capacity and the availability of foreign suppliers. This study argues that in periods when most of the explanatory variables, as determined by several indicators, are measured high, particularly security factors and military obsolescence, military modernization is highest. Moreover, the security threat environment plays a larger role in influencing military modernization in both states than previously understood. Additionally, China's rapid advancement ahead of India, despite disadvantages, may be a result of alternative means of procurement and development, to include not only aggressive means of technology transfer through co-option, coercion, and industrial espionage

C Mölling, F Schimmel (2021)

Promoting Technological Sovereignty and Innovation: Emerging and Disruptive Technologies; a Workshop Report.

URL: <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-75843-6>

Emerging and disruptive technologies (EDT) transcend the four-basket logic of the EU Strategic Compass as they touch on aspects of all issue areas. To break down this complex topic, the workshop was based on two input papers that focused on aspects of sovereignty and innovation. While the discussion cannot and should not be held exclusively in relation to the security and defense realm, participants were encouraged to highlight initiatives relevant for the scope of the Strategic Compass process.

Bitzinger, R. A. (2015).

Defense Industries in Asia and the Technonationalist Impulse. Contemporary security policy. 36(3). p. 453–472.

DOI: [10.1080/13523260.2015.1111649](https://doi.org/10.1080/13523260.2015.1111649)

Asia is a region of growing militarization and insecurity. It is increasingly characterized by rising defense expenditures and rapidly modernizing militaries, and subsequently it is increasingly becoming a zone of potential conflict. These security concerns are

exacerbated by Asian countries' expanding capacities for indigenous armaments production. Asian arms production is heavily influenced by concepts of techno-nationalism, which views autarky (self-sufficiency in armaments) as serving not only national defense needs, but also as maximizing national political, strategic, and economic autonomy. The technonationalist model is more than a set of goals; it also embodies a strategy for achieving autarky in armaments production, including the short-term exploitation of foreign-sourced technologies. What is the most interesting about Asian arms industries is how enduring they have been despite the fact that they produce few economic benefits and contribute so little to guaranteeing security of supply or expanding military-technological capacities for national defense. Asian armaments production has rarely been cost-effective or militarily significant in terms of turning out state-of-the-art military equipment. And yet, most large powers in Asia have not abandoned the idea of autarky in armaments production, often with explicit technonationalist industrial strategies. Despite problems with this technological-industrial approach, it is unlikely that these countries will abandon techno-nationalism anytime soon.

Mallapaty, S. (2021).

China's five year plan focuses on scientific self-reliance. *Nature*. 591(7850). p. 353-354.
DOI: 10.1038/d41586-021-00638-3

Global tensions, limits on international collaboration and an emphasis on real-world applications drive the nation's vision for research. Credit: Qilai Shen/Bloomberg/Getty
Global tensions, limits on international collaboration and an emphasis on real-world applications drive the nation's vision for research.

Pencea, S. (2021)

China's Race to Rise and Shine in High Technology. *Global Economic Observer*. V.9. No.1. Pp. 91-99.

URL: http://www.globeco.ro/wp-content/uploads/vol/split/vol_9_no_1/geo_2021_vol9_no1_art_010.pdf

This article looks at the nowadays heated competition for technological supremacy between China, a rising technological power, and the US, the current global authority in high technology and grand creator of new industries, innovative products, processes and services. It mainly addresses China's race to not only catch up, but replace the current global leaders in research, development and innovation, in a huge national push to break the technological dependency on the US and on the other technologically advanced nations and, making use of all the available means, legitimate or not, to accelerate the nation's progress towards self-reliance, self-sufficiency, the innovation-driven economy and to the final goal of reaching global technological dominance.

Rossiter, A., Cannon, B.J. (2019)

Making arms in India? Examining New Delhi's renewed drive for defence-industrial indigenization. *Defence Studies*. 19(4), p. 353-372.

DOI: 10.1080/14702436.2019.1685880

When it comes to states arming themselves, it has become axiomatic among scholars of comparative defence industries that go-it-alone production is no longer an option for most. The processes associated with defence-industrial globalization combined with the ever-rising costs of producing leading-edge weapons systems present huge disincentives for autarky in armaments. Against these strong headwinds, however, India has recently launched, as part of a broader, multi-sector initiative called Make in India, a renewed effort to achieve greater self-reliance in armaments production. This article first places India's recent defence indigenization efforts within wider discussions about states' armament strategies and trends in global arms production. Secondly, it contextualizes the drivers behind New Delhi's latest attempts to transform itself from leading arms importer to major producer (and significant exporter) against the backdrop of past efforts which have yielded little but disappointment. Third, it explicates the main

facets of the current strategy for defence-industrial indigenization and gauges its chances for success. To preview the main findings, we argue that self-reliance in armaments via indigenous production will almost certainly continue to allude India because of systemic, structural and technological constraints.

Tanaka, T., Guo, J. (2020)

How does the self-sufficiency rate affect international price volatility transmissions in the wheat sector? Evidence from wheat-exporting countries

Humanities and Social Sciences Communications, 7(1), Article 26.

DOI: 10.1057/s41599-020-0510-8

Research on international food prices or volatility transmission have concentrated on importing countries and have largely underestimated the importance of food insecurity or food poverty issues in food-exporting countries. This article identifies the causality between global and regional wheat price in exporting countries and explores the determinants of price volatility pass-throughs using a Glosten, Jagannathan and Runkle generalised autoregressive conditional heteroskedasticity (GJR-GARCH) model with dynamic conditional correlation (DCC) specifications. Findings indicate that causal relationships between world and local prices are bi-directional and that self-sufficiency plays an important role in reducing international price volatility spillovers. Moreover, the consumption of substitute goods such as maize or rice functions as a shock absorber, alleviating volatility transmissions from the international market. Due to the COVID-19 crisis, food prices are more destabilised in many countries, along with various factors such as Russia's and Kazakhstan's export restrictions on grain commodities and international transport and supply chain disruptions. Based on the findings of our analysis, high self-sufficiency or autarky policies could help resilience to the shocks from these unexpected events against local retail markets in exporting countries such as the United States.

Михайлов А.А., Комова А.А. 2019.

Проектный менеджмент как инструмент реализации программ импортозамещения в российской авиационной промышленности. Московский экономический журнал. №1. с. 561-569.

URL: <https://cyberleninka.ru/article/n/proektnyy-menedzhment-kak-instrument-realizatsii-programm-importozamesheniya-v-rossiyskoy-aviatsionnoy-promyshlennosti>

Статья посвящена проблеме импортозамещения в российской авиационной промышленности с использованием проектного менеджмента. Определяется сущность проекта как инструмента реализации импортозамещения, обосновывается целесообразность реализации проектного подхода, а также предлагается общий алгоритм реализации проекта по импортозамещению авиационного изделия.

Reis, J. C. G.(2021).

Politics, Power, and Influence: Defense Industries in the Post-Cold War. Social Sciences. 10(1), Article 10.

10.3390/socsci10010010

The post-Cold War era is placing the defense industry at a crossroads. If, on the one hand, it is under great pressure to guarantee warlike efforts around the world, with tight budgets and uncertain lead-times, on the other hand, it is seen as a central instrument for national sovereignty and foreign policy. The purpose of this research is to report the state-of-the-art of the existing literature and explore the most relevant research areas in order to provide the conceptual basis for further empirical research. To do so, this study uses a preferred reporting items for systematic review and meta-analysis (PRISMA), which is an adequate technique as it allows one to discover concepts, ideas, and debates about the defense industry. The results evidenced three different approaches to the defense industry—integration, autarky, and domination. In that regard, we present several case studies in which the defense industry is used as an instrument of foreign

policy or national sovereignty. Future studies may focus on empirical research to validate the theoretical findings or to identify variables that lead some defense industries to seek synergies, resorting to mergers and acquisitions, while other defense companies prefer to obtain State funds.

van Schijndel, P. (2020)

Trends in domestic energy use reduction and private renewable energy production. The 5th International Conference on Energy, Environmental and Information System (ICENIS 2020). E3S Web of Conferences 202, p. 0100.

DOI: 10.1051/e3sconf/202020201009

Households controlling their own usage of energy and home production of electricity can make substantial savings on their energy bills. The paper describes experiences in practical situations using long term scientific and professional experiences.

Mir-Artigues, P., del Rio, P. (2021).

Prosumers' Behavior under a Regulation That Encourages Strict Self-Sufficiency. The Case of Spanish Photovoltaic Micro-Generation.

Energies, 14(4), p. 1114.

DOI: 10.3390/en14041114.

This article explains the key elements of the latest regulation of photovoltaic microgeneration in Spain and, through a stylized model, describes the economic behavior of prosumers in such a regulatory framework. It is concluded that this regulation only encourages prosumer plants which are strictly focused on self-sufficiency because it discourages exports and limits capacities and this regulation discourages the smart renewal of the distribution grid because it prevents prosumers from participating in the electricity market. It is recommended that the aforementioned regulatory limits be removed and pilot experiences for the market participation of prosumers be promoted by creating the appropriate technical and regulatory conditions, for example, at the municipal level.

Firmansyah, I., Carsjens, G. J., Spiller, M. (2021).

An integrated assessment of environmental, economic, social and technological parameters of source separated and conventional sanitation concepts: A contribution to sustainability analysis. Journal of Environmental Management, 295, p. 113131.

DOI: 10.1016/j.jenvman.2021.113131

This study provides a methodological approach to evaluate the sustainability of these sanitation concepts with focus on resource recovery and reuse. St. Eustatius, a small tropical island in the Caribbean, was used as a case study for the evaluation. The higher score of the UASB-TF at community level is mainly due to much better performance in the environmental and economic categories. The case study provides a methodological approach that can support urban planning and decision-making in selecting more sustainable sanitation concepts, allowing resource recovery and reuse in small island context or in other contexts.

Jansenm, S., Mohammadi, S., Bokel, R. (2020).

Developing a locally balanced energy system for an existing neighbourhood, using the 'Smart Urban Isle' approach. Sustainable Cities and Society, 64, p. 102496.

DOI: 10.1016/j.scs.2020.102496

This paper demonstrates the usefulness of the approach for generating various alternative innovative energy concepts for neighbourhoods, based on the local demands and energy potentials, and also describes the resulting energy concept developed for the case study. The paper describes a step-by-step approach for generating various energy concepts for neighbourhoods, based on local renewable resources. The approach is developed within the European research project 'Smart Urban Isle' (SUI). First, the five steps of the approach are introduced, and secondly, these are applied to an existing residential neighbourhood in the Netherlands. The resulting preferred energy

concept for the case study consists of a local, ultra-low temperature heat grid, heated by decentralised heat production from PV-thermal (PVT) collectors on individual roofs and connected to a collective seasonal underground storage (ATES).

Furmankiewicz, M., Hewitt, R.J., Kazak, J. (2021).

Can rural stakeholders drive the low-carbon transition? Analysis of climate-related activities planned in local development strategies in Poland. *Renewable and Sustainable Energy Reviews*, 150, p. 111419.

DOI: 10.1016/j.rser.2021.111419.

This article analyses the objectives, planned actions and performance indicators related to climate change and renewable energy (RE), defined by national and local stakeholders in: (1) the national Rural Development Programme (RDP) 2014–2020 in Poland and (2) in the bottom-up Local Development Strategies financed from RDP and using a Community-Led Local Development approach. The content analysis method was used. The results of the analysis suggest a relatively low level of interest from rural-policy actors in Poland in implementing the climate-friendly objectives of the Europe 2020 strategy. This article contributes to understanding why Poland failed to meet the European 2020 RE development goals. These issues are discussed in the context of national and continental climate policy and problems of transformation to post-carbon society.

Torrijos, V., Dopico, D. C., Soto M. (2021)

Integration of food waste composting and vegetable gardens in a university campus. *Journal of Cleaner Production*, 315, p. 128175.

DOI: 10.1016/j.jclepro.2021.128175

The local composting program of the University of A Coruña (UDC) offers a decentralized service for the treatment of food waste from 11 university canteens using static and dynamic composters located in 9 different composting areas. Considering the three pillars of sustainability, this work describes the characteristics of the different composting technologies used and their investment and operational costs, the routine monitoring process and product quality, the integration of the composting systems as living labs for biotechnology and environmental engineering courses, and the use of compost in the university vegetable gardens. The dissemination of composting practice to society was another important outcome of the project.

Beauchampet, I, Walsh, B. (2021)

Energy citizenship in the Netherlands: The complexities of public engagement in a large-scale energy transition. *Energy Research & Social Science*, 76, p. 102056.

DOI: 10.1016/j.erss.2021.102056.

We investigated how local government stakeholders – the primary facilitators of the transition – perceive the role of citizens and energy citizenship in achieving this transition at household level. Semi-structured interviews were conducted with officials from nine municipalities. Our data show mixed perceptions as to citizen interest and financial willingness and/or capacity to adopt gas-free alternatives. Two alternatives are considered most appropriate in the municipalities that participated in our study: a collective heat network and an all-electric approach.

Echegaray, F. (2021)

What POST-COVID-19 lifestyles may look like? Identifying scenarios and their implications for sustainability. *Sustainable Production and Consumption*, 27, p. 567–574.

DOI: 10.1016/j.spc.2021.01.025

The pandemic's short-term effects are visible to everyone experiencing it, yet the global health crisis will also have long-term effects which are presently unknown but whose configurations can be spotted by identifying scenarios based upon individual relations with their material, symbolic and social environments. This perspective article reviews

changes in two critical domains of practice: consumption and social relations, based on a theory of scarcity, and proposes an approach to foresee post-COVID-19 scenarios across several areas of social practice. The experience of scarcity in consumption and socializing redefines priorities and values yielding two ideal-types of responses for each domain: the assimilation of reduced levels of material wellbeing and social interactions or the drive for self-indulgence to compensate sacrifices in those areas.

Глобальное распространение знаний и научная мобильность в новых условиях

Пандемия усугубила развивающийся в последние десятилетия кризис процессов глобализации. Автаркические проявления, разрушавшие коммуникации и до пандемии, нарастают в различных областях человеческой деятельности. Во времена общественных кризисов, быстрое распространение соответствующих научных знаний имеет первостепенное значение. Реалии 2020-2021 гг. затронули распространение знаний как в областях, непосредственно связанных с исследованиями пандемии, так и в направлениях, далеких от медицины. Неблагоприятная информационная атмосфера в обществе усугубляется тем, что личные контакты экспертов сегодня сокращены. Возросла роль распределённых форм научной деятельности. К распределённым механизмам извлечения знаний добавилась практика распределённой экспертизы.

Считается, что пандемия COVID-19 является «первой пандемией социальных сетей». В связи с происходящими процессами традиционные способы распространения знаний начали подвергаться ревизии. Так, продолжительность издательского процесса в научных журналах, которая представляет собой один из основных факторов, препятствующих быстрой доставке информации, стала меняться в дисциплинах, непосредственно связанных с изучением пандемии.

Поиск баланса «скорость обмена – надёжность информации» заставляет все более широко обращаться к понятию «открытой науки». Открытая наука, в свою очередь, опирается на несколько принципов, причем наиважнейший среди них – открытый доступ (open access) к научной информации. Стала меняться и научная мобильность – также в сторону большей открытости и инклюзивности. Ярким проявлением стали «онлайн» конференции и семинары, доступ к которым получает значительно большее число исследователей. Способы традиционного обмена знаниями путем организации привычных семинаров, практикумов и международных конференций, потеряли свой монопольный характер. Проблема поддержания информационных обменов в последние годы переплелась с грядущим энергетическим переходом в связи с изменением климата. Субъекты научной деятельности стали оцениваться и по вырабатываемому ими углеродному следу. Стал оцениваться углеродный след научных обменов. Например, при организации научных встреч сопоставляют их важность с потенциальным вредом от сопутствующих авиаперелетов, вносящих вклад в содержание атмосферного CO₂.

Buera, F. J., Oberfield, E. (2020)

[The global diffusion of ideas. *Econometrica*. 88\(1\), p. 83-114.](#)

[DOI: 10.3982/ECTA14044.](#)

We provide a tractable, quantitatively-oriented theory of innovation and technology diffusion to explore the role of international trade in the process of development. We model innovation and diffusion as a process involving the combination of new ideas with insights from other industries or countries. We provide conditions under which each country's equilibrium frontier of knowledge converges to a Fréchet distribution, and derive a system of differential equations describing the evolution of the scale parameters of these distributions, that is, countries' stocks of knowledge. The model remains tractable with many asymmetric countries and generates a rich set of predictions about how the level and composition of trade affect countries' frontiers of knowledge. We use

the framework to quantify the contribution of bilateral trade costs to long-run changes in TFP and individual post-war growth miracles. For our preferred calibration, we find that both gains from trade and the fraction of variation of TFP growth accounted for by changes in trade more than double relative to a model without diffusion.

Planells-Artigot, E., Ortigosa-Blanch, A., Martí-Sánchez M. (2020)

Bridging fields: A comparative study of the presence of think tanks. *Technological Forecasting & Social Change*. 162, p. 120377.

DOI: 10.1016/j.techfore.2020.120377;

Think tanks have increased their presence globally as social actors and provide evidence-based research for the complex policymaking process. How they can best influence policymakers is a common topic of analysis. There is an equal increase in the research using them as an object of study and exploring their area of influence. Periodical rankings and studies, both academic and non-academic, have been devoted to the impact of think tanks on media and institutions, analysing their presence, and explaining how, and if, they become influential. Through bibliometric analysis, this article covers the number of publications focusing on the study of think tanks in the Web of Science database since 1985 (n = 2,162). Given the research nature of think tanks, this paper analyses the recurrence of terms which link them to their connection with universities and the media, together with the use of their experts and their advocacy attempts. The goal is to obtain what the most relevant contributions are in terms of geographical and research areas. The article also analyses the frequency of key words which link think tanks with other social actors.

Борусяк Л. (2020)

Молодые интеллектуалы: почему они уезжают из России, а потом решают вернуться? // *Вестник общественного мнения*. 1-2(130). с.191–205.

URL: <https://clck.ru/WjRRh>

Когда вернувшиеся объясняли свою мотивацию к возвращению, практически никто из них (за единичным исключением) не написал о своем патриотизме и желании изменить к лучшему ситуацию в России, чему будет способствовать их более высокое образование, профессиональный опыт, полученные за рубежом. Прозвучали только личные причины возвращения в родную страну, в которой они могут реализоваться, но не смогут, да особо и не стремятся ничего изменить.

Rasser, M. (2020)

Rethinking Export Controls: Unintended Consequences and the New Technological Landscape. Report to CNAS.

URL: <http://www.cnas.org/publications/reports/rethinking-export-controls-unintended-consequences-and-the-new-technological-landscape>.

Current export controls are increasingly counterproductive to U.S. national security. They are in need of reevaluation and redesign. The implications of global technology-related trends and growing impact of unintended consequences as a result of export controls mean that changes are in order.

Гуськов, А. Е., Селиванова, И. В., Косяков, Д. В. (2021)

Миграция российских исследователей: анализ на основе наукометрического подхода // *Библиосфера*. № 1, с. 3–15.

DOI: 10.20913/1815-3186-2021-1-3-15

Для изучения академической мобильности предложен новый метод, который выстраивает историю смены мест деятельности, городов и стран проживания автора по его публикациям. Метод был применен для изучения академической мобильности в отношении публикаций российских исследователей, проиндексированных в БД Scopus в 2000–2019 гг. Показано, что депрессивный процесс «утечки мозгов» в России в 2015 г. преобразовался в процесс

«циркуляции мозгов», когда количество иммигрантов и эмигрантов в науке стало сопоставимым. В 2007–2011 гг. больше всего ученых уезжало в европейские страны (в частности, Германию) и в США. В 2015–2016 гг. отток был скомпенсирован выросшим примерно в два раза количеством ученых, приехавших в Россию из стран СНГ. Внутрirosсийская миграция исследователей на 76 % связана с Москвой, куда из регионов приезжают больше, чем в них уезжают. Выделяются также Санкт-Петербург, где наблюдается равномерный приток ученых из других регионов, компенсирующий количество уехавших в столицу, и Новосибирская область, являющаяся центром миграционных процессов Уральского и Сибирского федеральных округов и крупнейшим «донором» для других территорий. При этом во всех трех научных центрах отток исследователей за рубеж в 2012–2016 гг. заметно превышал их приток из других регионов. В остальных субъектах РФ академическая мобильность в указанные годы была заметно слабее.

Kwiek, M. (2021)

The Globalization of Science: The Increasing Power of Individual Scientists. The Oxford Handbook of Education and Globalization. Ed. Paola Mattei, Xavier Dumay, Eric Mangez & Jacqueline Behrend. Oxford: Oxford University Press.

URL: <https://ssrn.com/abstract=3851630>

National science systems have become embedded in global science and countries do everything they can to harness global knowledge to national economic needs. However, accessing and using the riches of global knowledge can occur only through scientists. Consequently, the research power of nations relies on the research power of individual scientists. Their capacity to collaborate internationally and to tap into the global networked science is key. The constantly evolving, bottom-up, autonomous, self-regulating, and self-focused nature of global science requires deeper understanding; and the best way to understand its dynamics is to understand what drives academic scientists in their work. We are particularly interested in the contrast between global science as a largely privately governed and normatively self-regulating institution and global science as a contributor to global collective public goods. The idea that science remains a state-driven rather than curiosity-driven is difficult to sustain. In empirical terms, we describe the globalization of science using selected publication, collaboration, and citation data from 2000-2020. The globalization of science implies two different processes in two different system types: the growth of science in the Western world is almost entirely attributable to internationally co-authored publications; its growth in the developing world, in contrast, is driven by both internationally co-authored and domestic publications. Global network science opens incredible opportunities to new arrivals—countries as well as institutions and research teams. The global system is embedded in the rules created by scientists themselves and maintained as a self-organizing system and nation-states have another major level to consider in their science policies: the global level. Globalization of science provides more agency, autonomy, collegiality, and self-regulation to scientists embedded in national science structures and involved in global networks.

Юревич, М., Еркина, Д., Цапенко, И. (2020)

Измерение международной мобильности российских ученых: библиометрический подход. Мировая экономика и международные отношения. 64(9), с. 53–62.

DOI: 10.20542/0131-2227-2020-64-9-53-62

В статье обосновывается и демонстрируется применимость и адекватность библиометрического подхода для изучения трансграничной мобильности российских научных кадров. С помощью данной методологии оцениваются масштабы и характер передвижений представителей социальных наук. Выявлено, что большая часть идентифицированных мобильных ученых-соотечественников вовлечена в глобальную циркуляцию научных кадров, при гораздо меньшей доле постоянно работающих за рубежом исследователей,

которых можно отнести к научной диаспоре.

Lee, J. J., Haupt, J. P. (2021)

Scientific globalism during a global crisis: research collaboration and open access publications on COVID-19. *Higher Education*, 81, с. 949–966.

DOI: 10.1007/s10734-020-00589-0

This study sought to understand the nature of scientific globalism during a global crisis, particularly COVID-19. Findings show that scientific globalism occurs differently when comparing COVID-19 publications with non-COVID-19 publications during as well as before the pandemic. Despite the tense geopolitical climate, countries increased their proportion of international collaboration and open-access publications during the pandemic. However, not all countries engaged more globally. Countries that have been more impacted by the crisis and those with relatively lower GDPs tended to participate more in scientific globalism than their counterparts.

Rajan, I. Pattath, B. (2021)

Kerala return emigrant survey 2021: what next for return migrants of Kerala?

URL: <http://14.139.171.199:8080/xmlui/handle/123456789/623>

The report concerns emigrants who returned to Kerala between May and December 2020 in the midst of the Covid-19 pandemic. We document the experiences of 1985 return emigrants (REM) through a quantitative survey conducted via Computer Assisted Telephonic Interviews (CATI). While the REM have been a demographically, politically and economically significant component of Kerala's population, the COVID-19 REM represent a unique case in history that has the potential to not only affect the economy, society, and psyche of Kerala for many years to come, but to also provide valuable insights into the future of global labour migration governance.

Tang, H. (2020)

Globalization in Crisis.

URL: http://faculty.wvu.edu/~patrick/envs342-geo312/AA%20new%20readings/tang-2020_Globalization%20in%20Crisis_agi_paper_short.pdf

Globalization is in its deepest crisis since World War II. The world has been deglobalizing for over a decade, starting with the end of the 2008-2009 Great Financial Crisis. Structural factors are partly to blame, including ageing and automation, but so are inward-looking protectionist policies supported by anti-globalizers around the world. Recent anti-globalization events, most notably Brexit and the U.S.-China trade war, expedited the trend. Above all, the Covid-19 pandemic, which already caused the largest economic contraction on record in many countries, has brought the global economy to its knees. Drawing insights from the two waves of globalization and deglobalization that have taken place since the mid-19th Century, this essay aims to shed light on the impact of the escalating U.S.-China tension and Covid-19 on globalization. It addresses both the short-run and long-run prospects of globalization, drawing on historical accounts and recent academic research.

Horbach, S. P. (2020).

Pandemic publishing: Medical journals strongly speed up their publication process for COVID-19. *Quantitative Science Studies*. 1(3), p. 1056-1067.

DOI: 10.1162/qss_a_00076

In times of public crises, including the current COVID-19 pandemic, rapid dissemination of relevant scientific knowledge is of paramount importance. The duration of scholarly journals' publication process is one of the main factors that may hinder quick delivery of new information. Following initiatives of medical journals to accelerate their publication process, this study assesses whether medical journals have managed to speed up their publication process for coronavirus-related articles. It studies the duration of 14 medical journals' publication processes both during and prior to the current pandemic. Assessing 669 articles, the study concludes that medical journals have indeed strongly accelerated

their publication process for coronavirus-related articles since the outbreak of the pandemic: The time between submission and publication has decreased on average by 49%. The largest decrease in number of days between submission and publication of articles was due to a decrease in time required for peer review. For articles not related to COVID-19, no acceleration of the publication process is found. While the acceleration of the publication process is laudable from the perspective of quick information dissemination, it also may raise concerns relating to the quality of the peer review process and of the resulting publications.

Gelenbe, E., Brasseur, G., Chefneux L., et al. (2021)

On sharing knowledge and fostering "open science". Ubiquity Magazine. May, p. 1-13.

URL: <https://dl.acm.org/doi/pdf/10.1145/3462221>

The crucial importance of science and technology and its accurate peer reviewed dissemination, has once again been demonstrated during the current pandemic. Thus the COVID-19 pandemic together with the inevitable energy transition required by climate change, lead us to consider the issue of scientific and technical communication, both for the written papers and proceedings that have largely moved online (but not always in open access), and the various types of seminars, workshops, and symposia that frequently involve air travel with substantial CO2 impact. Online meetings that have become recently very popular, as well as online repositories for publications, themselves have a significant CO2---as well as environmental---impact, due to the massive use of electricity by information and communication technologies (ICT) and of the environmentally unfriendly manufacturing processes and decommissioning of ICT equipment. Presented is a broad overview of these aspects, and some recommendations regarding the future organization of scientific and technical communication, including: (1) peer-reviewed journals and proceedings with online open access; (2) the importance of face to face seminars and symposia, together with online meetings, to maintain the serendipity and importance of direct human contact while reducing the need for air travel; (3) the peer evaluation of research and of academic and research staff and its dependence on publications and their qualitative---rather than excessively quantitative---evaluation, where the concept of impact should include the usefulness of research to education, industry and society; (4) and the crucial role of ICT in all these aspects and the questions raised by the sustainability of ICT itself.

Rosenberg, H., Syed, S., Rezaie, S. (2020)

The Twitter pandemic: The critical role of Twitter in the dissemination of medical information and misinformation during the COVID-19 pandemic. Canadian Journal of Emergency Medicine, 22(4), p. 418-421.

DOI: [10.1017/cem.2020.361](https://doi.org/10.1017/cem.2020.361)

As the world finds itself in the middle of the COVID-19 pandemic, social media has become inundated with content associated with the virus. Although all social media platforms (e.g., Facebook, Instagram, blogs) are currently providing us with medical content, perhaps no other consistently plays a more prominent role in the medical world than Twitter. Emergency medicine (EM) is on the bleeding edge, where practice at the bedside is continually being shared on social media and this pandemic has resulted in immense activity on Twitter. Twitter is a microblogging and social networking service where users post messages using "tweets" that are limited to 240 characters. For well over a decade, Twitter has become increasingly used as a platform where medical practitioners exchange ideas, information, and commentary. The hashtag #FOAMed garners thousands of tweets per hour, and at this momentous period in medical history, no subject is more prominent than COVID-19. With the free-flow of messages and ideas that are not vetted or peer-reviewed, unlike classic medical educational resources, is there a risk of harm? What are the benefits to the EM community from Twitter? Finally, how does the average emergency physician (EP) get the most out of the information out there?

Grove, J. (2021)

Data sharing on COVID-19 research 'disappointing', says EU chief. Times Higher Education. May, 26.

URL: https://www.timeshighereducation.com/news/data-sharing-covid-research-disappointing-says-eu-chief?utm_source=newsletter&utm_medium=email&utm_campaign=editorial-daily

Just 9 per cent of coronavirus papers have made efforts to help replication of experiments, European Commission open science champion tells summit

Yeo-Teh, N.S.L., Tang, B.L. (2021)

An alarming retraction rate for scientific publications on Coronavirus Disease 2019 (COVID-19). *Accountability in Research*. 28(1), p. 47-53.

DOI: 10.1080/08989621.2020.1782203

The ongoing Coronavirus Disease 2019 (COVID-19) global pandemic has triggered a flurry of associated research publications, numbering to ~137 papers a day since February 2020. This rate of publication appears to be exceptionally high, when compared to research papers published on other similar topics. Searches of COVID-19-associated publications on PubMed and Retraction Watch Database indicate that the retraction record appearance rate for COVID-19-related research is also exceptionally high compared to other related research topics in viral epidemics/pandemics and surpasses the basal level of about 4 in 10,000 papers. This finding serves as a reminder and caution against any lapses in the standard of work, peer review, and publication of COVID-19-related research.

Chan, A.K.M., et al. (2020)

Social media for rapid knowledge dissemination: early experience from the COVID-19 pandemic. *Anaesthesia*. 75(12), p. 1579-1582.

DOI: 10.1111/anae.15057

In the current COVID-19 pandemic, social media has the potential, if responsibly and appropriately used, to provide rapid and effective dissemination routes for key information. The example provided validates this possibility. In summary, the infographic presented met the majority of above proposed criteria. The success of the dissemination was, we believe, promoted by the existing reputation of the institution, quality of the infographic imagery and content and the rapid dissemination by social media platforms with professional participants. This allowed several institutions to utilise the time-consuming work already done in the original institution, and not have to repeat the investment of time and energy to reproduce similar material. Free and rapid access to high-quality information from verifiable sources is valuable to optimise the global medical response to crises such as the current COVID-19 pandemic.

Yingjie F., Horvat, M. (2021)

How National Science Funders Can Strengthen Global Collaboration and Avoid Isolationism // *Issues in Science and Technology*, June 9.

URL: <https://clck.ru/WjSAw>.

National science funding organizations provide the infrastructure that supports an international exchange of scientists and fosters cooperation among international research teams. Policymakers have the opportunity to improve conditions for international scientific collaborations, so that scientists can work together to address global challenges such as infectious disease outbreaks. Here we suggest refinements to these conditions and explore how funders can strengthen their collaborative activities. Funders, as a result of these changes, will be better able to build trusted global science networks for the advancement of science and the benefit of society.

Molęda-Zdziech M., Pachocka M., Wach D. (2021)

Perspectives. In: Local Integration of Migrants Policy. Palgrave Studies in Sub-National Governance. Palgrave Macmillan, Cham.

DOI: [10.1007/978-3-030-50979-8_10](https://doi.org/10.1007/978-3-030-50979-8_10)

This chapter presents the immigration and integration policies in Poland in recent years in various aspects—institutional, political and social. It explores the issues of immigration to Poland, the situation of foreigners and immigrants, and their integration within Polish society. It focuses on the integration activities and policies dedicated to foreigners, including those implemented by both central and local authorities as well as non-governmental organisations (NGOs). This interdisciplinary paper reflects different theoretical approaches and scientific disciplines represented by its authors, both researchers and practitioners, including migration studies, sociology, political science, public policy and media studies.