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Athens Journal of Social Sciences

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Gregory T. Papanikos
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- Acceptance of Abstract: 4 Weeks after Submission
- Submission of Paper: 8 April 2024

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(Ri) educate to Political Participation:  
The Democratic Challenge

By Letizia Carrera*

In recent decades, an increasingly significant break in the bond that binds politics and subjects has been affirmed. An increasing number of citizens have distanced themselves from politics and its party drift and have ceased to recognize themselves in it and in its institutional representatives. This process has pushed the subjects towards individualistic orientations and privatization of the experience. The increasingly low level of political culture of the citizens, both outcome and cause of the growing disaffection and deresponsibilization, exposes to the risk of an increasingly demagogic, populist and low democratic policy. The last decades, therefore, have undermined the conditions for the existence of a “critical citizen”, a priority objective to ensure fully democratic decision-making and government processes. The goal of a full and widespread democratic participation requires training courses of political culture, starting from a rethinking and a redesign of the times and spaces of training so that widespread conditions of learning knowledge and skills elicitation for a full voice are guaranteed

Keywords: democracy, participation skills, third spaces, cities, complexity

Introduction

In recent decades, a break in the link between policy-makers and an increasing proportion of citizens has been growing. Citizens have distanced themselves from politics, ceasing to recognize themselves in it and in its institutional representatives. This process reflects and amplifies the crumbling of the sense of belonging to a political community and of personal and collective responsibility for a process of improvement that has ceased to be thought as possible.

The sense of betrayal that many citizens have experienced because of what we can define the partisan drift of politics has contributed to trigger this distance from the public arena (Canfora 2022), from the agora as Bauman wrote in 2002, ending with the production of vicious circuits of renunciation to any forms of vocality (Hirschman 1983) that could instead allow a virtuous reversal of march.

One element that played a major role in the process of loss of confidence in the political system has been the progressive expropriation of the most significant choices from the political system in favour of the economic one. Thirty years ago Touraine (1997) wrote that compared with the classical formula of a political sub-system called upon to define the aims and the economic one required instead of organizing the resources for the pursuit of the ends, increasingly, it seems that the economy whereas fulfils the function of identifying ends, forcing politics to a

*Professor, University of Bari Aldo Moro, Italy.
dramatic run-up. This process of progressive contamination of the political sphere with the economic one has in parallel emptied the political community of part of its decision-making power by transferring it to the economic area. However, the economic area contains regulatory mechanisms, profoundly different from the political ones and not calibrated on the plurality and the comparison of differences, and often not tempered by a rationality with respect to the value.

The subjects found themselves increasingly poor in power and opportunities to participate in the government of the state and local communities. These dynamics have produced the further effect of accelerating the progressive distance-taking and the growing distrust towards the institutions and the loss of the sense of belonging to civil society. These processes have accentuated and accelerated the shift towards individualistic orientations and privatization of experience that expose the subjects to the risks of blocks by strategic rationality (Cassano 1990). As consequence, the conditions for collective action are no longer met, while the risk of free riding is becoming more marked. This term alludes to the entirely rational choices of abstention from participating in collective action by those subjects who, in a completely strategic way, know that they cannot be excluded from any possible benefits even if they have not borne any cost. As noted by Franco Cassano, the absence of a strong value orientation that can temper the purely rational choices ends up denying the conditions of collective action. This phenomenon of “downward participation” represents a sign of a democracy in distress (Mindus 2014).

The private withdrawal is accentuated by the low degree of political effectiveness perceived by subjects and collectively. The feeling of not being able to affect the political level, in fact accentuates the distance lived with respect to the public dimension and the idea of the common good itself.

These processes are circularly linked to the progressive impoverishment of the level of political culture, also because of the disappearance of the role of political formation played in the past by the parties and the absence of other collective players able to fill that gap. The ever-lower level of political culture of citizens is together the outcome and the cause of this growing disaffection and de-responsibility, exposes them to the risk of an increasingly demagogic and populist policy that loses its anchorage of legitimacy in the legal-rational dimension. 

1“Since the 1960s and especially the 1970s, global national projects have been exhausted, paralyzed internally and attacked from the outside (...) the World Bank and the International Monetary Fund (...) pushed all countries to implement structural adjustments that firstly involved the demolition of the old political controls on the economy” (Ceri and Borgna 1998, p. 28).

2“Democracy exists when all citizens participate to decide on every issue relating to the direction and government of their politeia. And of course, decisions on every issue are taken by all citizens by majority voting” (Papanikos 2022b, p. 108).

3It is essential to be aware that culture as school or universitary qualification is anyway a guarantee of solid and consolidated democratic processes. On the contrary, the culture understood as knowledge and sedimented experience can create the conditions for a full affirmation of democracy. “Political ‘animals’ are able to get more education which is a necessary condition to build a better politeia. It is not sufficient though; democracy requires its ‘animals’ to have virtue. Pedagogy makes an ideal individual to be a citizen of an ideal democracy. In the meantime, and through education with virtue, political ‘animals’ can become better. Improvement is the objective of a modern politeia. Perfection and other utopias can wait” (Papanikos 2022a, p. 360).
move towards the charismatic-personalistic one\(^4\). Reciprocally there is a growing reference and reliance on individual political personalities and new leaders who, too often, move the debate from the rational level to the emotional one (Biorcio 2003).

The last decades, therefore, have undermined the conditions for the existence of a “critical citizen”, as wrote Norris (2003) already twenty years ago, a necessary and priority objective to ensure fully democratic decision-making and government processes. Democracy is suffering from a legitimacy crisis (Papanikos 2022b; Cecchi 2018, Facello 2012, Corbetta and Tuorto 2005, Tuorto 2002), starting from the betrayal of public expectations at different level due to several factors: demand (rising public aspirations for democracy), information (negative news about government), and supply (the performance and structure of democratic regimes) (Norris 2011)\(^5\).

The complexity of the socio-political scenarios which the subjects are called to deal with, makes it increasingly necessary a thought complex itself. Only this kind of thought is able to not indulging in mere choices of simplification that expose the subjects to the risk of heterodirect models, starting from a difficulty in developing its own political thinking. This can encourage the uncritical research of what Antonio Mutti defined as the “mediators of trust”, subjects to be trusted and that mediate precisely, simplifying, the complexity of the scenarios in which the subjects live and are called to operate their choices\(^6\).

In the absence of high levels of political culture, complexity becomes a chaotic universe in which subjects struggle to venture. Even if democracy is not a static concept (Papanikos 2022b), education is, today more than in the past, one of its essential prerequisite: “a better democracy requires better-educated voters; people who read and write is a necessary, but not a sufficient condition. Reading an article and recalling the message it portrays is a key issue for democracy. How people process this information becomes an integral part of the democratic process and is the necessary condition for a better democracy” (Papanikos 2022b, p. 91). Canfora (2017, p. 48) writes “How can the foolish people decide for themselves?”, resuming the debate on democracy written by an Anonymous Athenian. It is precisely for these reasons that in a more and more complex world, a low level of culture and political culture determines continues attempts to escape from complexity (Ceruti and Bellusci 2020, p. 13) and its multiple interconnections in favor of what Edgar Morin defined as the “paradigm of simplicity” (2000, 2007) become more and more frequent. At political level, citizens are frightened by increasingly global processes which they do not understand and over which they feel they have no control, with the consequence of being exposed to the risks of populist, simple and simplified solutions. A dramatic example is the increasingly widespread verbalization of hatred of those who have marked the boundaries,

\(^4\)According to Buskila et al. (2022) that examine Netanyahu’s political personality, also Papanikos states that, “beyond the specific political figure considered by the authors, the emotional intelligence may be used to manipulate others to meet their personal political objectives” (Papanikos 2022b, p. 92).

\(^5\)Norris (2011) has continued to examine the symptoms by comparing system support in more than fifty societies worldwide, challenging the pervasive claim that most established democracies have experienced a steadily rising tide of political disaffection during the third-wave era.

\(^6\)For a broad analysis of the theme cfr, among others, Carrera (2006).
making them the identity markers, in the name of a newfound essentialism that, once again, exposes people to the risk of political paths guided by traditional and rigid identity models (Sciolla 1993, 2003). Certainly, identity, as an important opportunity for continuity that persists in change, appears particularly essential in the over-modernity which Marc Augé writes about. In the current fluid society, characterized by an incredible acceleration in terms of events, spaces and times, in a fluid society (Bauman 2000) the contact with the other becomes daily (Bettini 2020). In this complex scenario, the identity, represented as a threat in a clear polarity, is simplified and reassuring. It is the boundary of “we” that defines at the same time who is “other”, who does not belong, who - recalling again Bettini (2020)- “has got the wrong forest”.

Identity is one of the keys that more than others could be an effective reducer of complexity, understood in the Luhmanian sense. Within the current socio-political scenarios, identity can fulfil the function of simplifying processes, of strengthening borders, of being a criterion of sense and choice. But it can be translated into its most extreme version becoming a real “identity obsession” (Bettini 2020, Appiah 2019). Populism is often sustained by the dissatisfaction of ordinary people who do not know what to do, by their exasperation towards complexity. “Populism is at the same time a determinant and an effect of the crisis of the political parties as representative bodies” (Fruncillo 2022, p. 285). It is “an ideology that considers society as being divided into two homogeneous and antagonistic groups, the ‘pure people’ and the ‘corrupt élite’” (Mudde 2004, p. 543).

The philosopher Slavoj Žižec states that in many cases, this incompetence to govern complexity, takes the form of the “mysterious figure behind the scenes” whose presence can explain everything is happening and that otherwise seems meaningless. It is the conspiracy culture which Arendt wrote about (2004), which represents a sort of effort to normalize reality (à la Harold Garfinkel), the attempt to report what appears meaningless within known conceptual frameworks that make plausible and normal what is different from the reality taken for granted.

7The identity, writes Bettini (2020) is actually a lexical bubble. The identity of a person, of a community, of a place is a process of continuous changes, a flow that is consolidated from time to time in norms, values, models, even words, but that soon exceeds becoming other and in need of new words that are able to account for it. But to accomplish its task, this trait is concealed in favor of fixity.

8One of the traits used by Domenico Fruncillo to define populism rests with its positive assessment of the figure of the strong leader, which shows not only what populism opposes, but also what it favors. In the logic of populism, the leader does not simply represent the citizens’ interests, but actually personifies the people and incarnates their hopes, expectations and fears. The leader can take decisions quickly because he or she has a direct connection with the people and is not conditioned by the structures of representation, rules and procedures which govern decision-making in representative democracy. Populism thus presents itself as a form of democratic government, but without the parties (Fruncillo 2022, p. 287).

9“The modern masses do not believe in the reality of the visible world, their own experience; they do not trust their ears eyes, but only their imagination that can be affected by what is seemingly universal is in itself coherent [...] what the masses refuse to recognize is the randomness that pervades the whole reality and they are predisposed to all ideologies because they explain the facts as simple examples of certain laws and eliminate coincidences by inventing all-encompassing omnipotence that is supposed to be the root of every totalitarian propaganda thrives on this escape from reality in fiction, from coincidence in coherence” (Arendt 2004, pp. 485–486).
The Intelligence of Complexity

Gastón Bachelard writes that the simple does not exist, it is instead the simplified. There are not simple phenomena because every phenomenon is the result of a network of relationships\textsuperscript{10}. It is necessary to recognize the deep distance that separates the modern complexity made of bonds, of interactions, of integration, of emergency of unbreakable connections from what is rather only “complicated”. It is because of this changed scenario, that each theory is called to test itself not for its ability to reduce complexity to simplicity, but rather for knowing how to translate complexity into a theory from a later approximation aimed at defining always dynamic equilibrium levels. In this dynamic there is the echo of Georg Simmel, with his amazing capacity for analysis\textsuperscript{11}, who had described the need and, at the same time the impossibility, of enclosing the complexity of the world in theories and words defined once and for all. He described and named this scheme “the tragedy of life”. The continuous pattern of references and excesses between “forms” and “life” takes shape in the continuous search for new theoretical categories able to fix a constantly changing and increasingly complex reality. He started from the recognition of a progressive complexity of the reality that requires an equally progressive complexity of our theoretical and conceptual apparatus. Simmel wrote, “Every higher culture of our species is paradoxically based on this: that, in the measure of our development, we must tread, for our purposes, increasingly longer, more detailed, richer stations and curves”. The need, therefore, more than the possibility of dealing with complexity imposes a new epistemology of complexity capable of distinguishing and linking, going beyond the principles of identity and of “non contradiction”.

Dioguardi writes, “the great variety of interdependencies often not evident and the total effects usually unpredictable, (...) determine a state of complexity (...) that cannot be understood starting simply from a Cartesian analysis carried out in a partial and reductive form on the individual elements. It is essential to make an observation on the global behavior of the system, thought of as unitary, even in its composition of partially autonomous variegated parts” (2017, p. 135). The reference is the “ecological thought” about which Morin (2000, 2007) writes. Interaction and integration need to be understood not as sum, overlap of technologies, but as system of organization of knowledge: “The structure of knowledge, which functions as principles and rules (...), involves operations of interconnection (conjunction, inclusion, implication) and separation (differentiation, opposition, selection, exclusion). The process is circular and goes from separation to connection, from connection to separation and then from analysis to synthesis and from synthesis to analysis. In other words, knowledge entails, at the same

\textsuperscript{10}There are no simple phenomena; the phenomenon is a plot of relationships. It hasn’t a simple nature, a simple substance; the substance is all a tissue of attributes. There are no simple ideas, because a simple idea, as Dupréel has noticed, must be inserted, in a complex system of thoughts and experiences, so that we can understand it” (Bachelard 2018, p. 131). For a deepening of the Bachelardian themes cf. among others, Polizzi (2015) and Castellana (2020).

\textsuperscript{11}Jurgen Habermas defined Georg Simmel a “zeithdagnostiker” by commenting on his ability to analyze the incoming modernity makes him able not only to understand his time but also to identify its lines and trends of development.
time, interconnection and separation, analysis and synthesis. Our civilization and, consequently, our teaching have favored the separation more than the interconnection, the analysis more than the synthesis. As consequence, interconnection and synthesis are remained underdeveloped. This is the reason because of what both separation and accumulation, without the interconnections of knowledge, are favored more than the organization that interconnects knowledge” (Morin 2000, pp. 18–19).

Therefore, generating this competence of complex thought becomes the difficult but necessary challenge that is faced by every democratic project. At every territorial level, in fact, the governance of processes presupposes a systematic and capable of interrelationship thought.

The goal of exploiting differences and different points of view is the basis of democratic pattern and requires learning processes of knowledge and skills to govern complexity. In this perspective, skills for complexity are necessary both for citizens and for administrators (Bobbio 1985, 2007). The growing need for a rethinking of public administration structures, based on a different training of officials and managers is focused on a new kind of responsibilities for the governance of complexity. This complexity has been improved by the need to include citizens within the decision-making processes through participatory, widespread and inclusive paths.

The world of second modernity, overwhelmed more than ever by that pathology of acceleration that already authors like Simmel, Benjamin, Nietzsche, recognized as the founding character of the modern era, has become the place of the multiplication of possibilities, without that the previously selected possibilities can however be the guiding criterion for the subsequent choices. In this perspective, a complex thought, necessary more than useful for the governance of complexity, has to be interdisciplinary and contaminated by other knowledge. It is the critical knowledge, the critical awareness able to avoid the risk of the semiculture from which Theodor Adorno warned in the last century. Semiculture could be defined as a large body of information that does not consolidate in critical knowledge and exposed to the dangers of speeding up the experiences denying the conditions for the process of knowledge that instead requires time for reflection. Subjects are increasingly overwhelmed by “a flood of information, without the time to succeed, if ever possible, in elaborating them all, sucked as we are in the vortex of an accelerated life” (Ceruti and Bellusci 2020, p. 12).

The complex nature of political thought is intimately linked to the conditions for a full affirmation of democracy, understood as plurality of voices that do not degenerate into fragmentation and chaos (Prigogine 2014).

In order to return to “take over the world” (Cacciari 1976), we need to reconstruct cultural and material conditions in order to generate a complex thinking capable of ecological approaches able to accept the risk and the limits to confront differences and interconnections. We need an intelligence of complexity, a competence to exercise a complex thought that knows how to connect and welcome nuances, that is able to give shape to what is not simple, to grasp the gap between the complexity that is made of bonds, of interactions, of integration, of emergency of unavoidable connections, and the complication made, instead, of accumulation, of differentation, of decomposable and sampleable compounds.
The method of complexity can show how much the whole is the result of interconnecting of the single parts, and the need of interdisciplinary approaches and of specific skills for the political culture. The complex nature of political thought is, in fact, intimately connected with the conditions for a full affirmation of democracy, understood as plurality of voices. It is therefore presented as a fundamental competence to be able to express voice choices, and the ability to know how to vocalize their own point of view and, with equal competence, to be able to compare themselves with other ones (Runciman 2019). This lowers the risk of individualistic exit choices and free riding behaviors which deny the conditions for collective action.

Complexity and democracy live a strong bond, and the inadequacy of thought in a scenario that Ulrick Beck defines as risky one - because everyone is exposed to the consequences of the secondary consequences of choices -, opens up the risk of a search for monocausal explanations of events. Faced with scenarios that seem incomprehensible to us for the multiplicity of variables and interconnections that characterize them, and not being prepared for multicausal approaches and causal circularity, often the results of this simple thinking is both the mechanisms of denial of the need for change, in analogy to those analyzed by Edgar Schein, and the search for scapegoats guilty for what lived.

Building the Material Conditions of Political Culture

The goal of full widespread and diversified democratic participation requires training paths of political culture, starting from rethinking and redesigning the practices to favor the participation. The awareness of the diversification of forms of political participation made necessary to ensure recognition not only of the form of traditional participation, but also of that of non-traditional participation and invisible participation (Carrera 2010).

In these decades the conception the practices to favor the participation have been very different from the political one of struggle of the years ‘60 and ‘70 that involving emotional with consisting in taking part in debates and simulations of conflictual situations. Social media has introduced other interactive forms that are expressed at a basic level with likes, tweets, but also through blogs, Youtube, Facebook. Other important experiences have been carried out in the social artistic field to give life to architectures, urban planning, co-planning of innovative processes (De...
times and spaces to ensure the structured conditions of learning knowledge and skills elicitation for a full democratic voice. It is essential, in fact, to go beyond the episodicity of these paths, in favor of structured and repeated occasions over time, and also to foresee the existence of public or semi-public spaces where those paths can be realized. In this perspective the third space is a very strategic opportunity (Carrera 2020a). It is the set of places built ad hoc or re-designed for this objective, such as “neighborhood houses”18, school auditoriums, associative spaces spread over territories that can be the place for those opportunities of training aimed at citizens in an undifferentiated way and regardless of the specific place of residence, thus protecting the principle of territorial democracy (Carrera 2020b).

Third spaces are urban experiences of overcoming and crossing borders that can generate inclusive practices of encounter and cultural contamination. Bhabha (2001) already assumed them as central within the process of hybridization between differences, as area of negotiation of meanings and representations. A space able to destabilize the hierarchies and the defined and consolidated schemes, a place in which new opportunities and new possible reconfigurations of meaning can be created. Within the given city and the defined spaces, the third space is the place of possibilities, of uncertainty, it is the gap through which change can make its way. In this perspective, third spaces present themselves as a material occasion to recover the awareness given to us by Heinz von Foester when he urged us to act in such a way as to increase the number of possibilities, not only for ourselves but also for others.

In this perspective, the city and the (re)design of urban space are strategic elements for the implementation of training political processes, starting from the implementation of minimal and widespread structural interventions within the urban territory (Amendola 2000, Villanti 2006). New forms of appropriation of urban space are generated also from the need to create a new knowledge which finds physical form in cities, but that goes beyond these. Participation skills put to the test starting from the urban plan, the territorial level closest to the citizens. Cities, in fact, are laboratories that should be observed and governed as organisms in continuous metamorphosis that cannot disregard the categories and paradigms of processing and complexity; the challenge of articulating heterotopic practices from the perspective of creative rebellion for the right to the city and the transition to a new and shared urban and political future (Dos Santos Jr 2014).

Third spaces present themselves as well as opportunities and tools to weaken the risk of resentment, a feeling that arises, as Max Scheler writes, in response not only to an experienced discomfort and to the presence of the other perceived as the cause of that discomfort, but also to the sense of powerlessness, to the systematic inhibition of any possibility of response. “A particularly violent tension between the development of the impulse of revenge, hatred, envy on the one hand, and

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18The House of neighborhood in Turin is a very important reference for this kind of spaces and, starting from this experience, in 2010 was born the Turin network on neighborhood Houses, to the date eight, and more numerous other experiences at the national level. https://www.retecasedelquartiere.org/.
impotence on the other” (Scheler 1912, p. 4). The resentment that undermines the conditions of the encounter is weakened if it finds spaces - figurative and literally - to represent itself and to dilute itself in the recognition of the different identities and rights claimed. Third space, as a place of meeting and of expression, but also of planning and therefore of change can be the space where people can earn back their political powerfulness and, consequently, a possible antidote to the self-poisoning of the soul (Scheler 1912) that undermines the deepest premises of democracy.

Conclusions

Political participation, starting from the paths and skills that are functional and indispensable to create its appropriate conditions, is itself a strategic tool able to create the conditions of fully democratic contexts. Participation, in turn, requires a thought capable of complexity and therefore of interdisciplinary skills, critical awareness and political culture. This “intelligence of complexity” needs specific and structured times and spaces offering the conditions for its full realization. In this perspective, third spaces represent an important resource, capable of providing the conditions for political skills and mutual recognition meeting and difference mutual recognition in order to overcoming the idea of “the others” relegated to the role of obstacles, or even of enemies. If, as Stefano Tomelleri observes in the Introduction to René Girard’s Essays, “the fusion of two or more equally desirable gazes in a single horizon inevitably entails the risk of conflict” (Tomelleri 1999, p. 4), it is precisely the politics, the Weberian art of mediation and compromise, that can be able to govern complexity.

The enhancement of third spaces and opportunities for political skills building processes is one of the solutions related to the double loop learning model about which Argyris and Schön wrote. This defines the path towards the solution of an ethical refoundation or, in other words, of a cultural and political refoundation of democratic participation. This is therefore the way to build processes of (re)education to political culture and therefore to the skills necessary for a full participatory democracy.

In conclusion, starting from these political and cultural paths, the cities and their government can facilitate the perspective of “emotionalization of democracy” which Lash wrote about (1999). This means the opportunity to bring emotions, enthusiasm, identity into play. The emotional charge seen as a drive to collective action (Walzer 2001), is able to overcome the sense of futility and to pose as an alternative to the sense of duty, questioning the primacy of cognition. This means adding to the capacity of synthesis, which is already beyond the one of disaggregating analysis, the ability of keeping in play the emotions spread, creating the conditions for a full social expression of the problems and consequently weakening the risk of resentment. Starting from the cities, we can imagine a future that is not a mere prolongation of the existent tendencies (Belli 2006) and to pursue the objective to support every urban part to extend its ability to find a role and a place in the city governance, considered as a system of
interdependent parts. Creating the conditions needed by the citizens to design a personalization of the political space, starting from the urban space, means countering the risk of a wider incapacitation (à la Sen). Attacking the mechanisms that determine social exclusion means reinforcing the active role of social actors starting from inclusive participatory processes that know how to go beyond the tolerance of the different, towards models of full recognition of the right to each own diversity and to fully participate in political life.

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Home Care Employees’ Experiences of Collegial Peer Support during the Pandemic

By Hannele Laaksonen*, Anne Boundy†, Kirsi Järvinen° & Pirkko Kivinen*

Employee wellbeing has in many cases weakened and peer support has lessened. Nurses’ exhaustion and decisions to change jobs are major challenges to the social and health care field. The purpose of this study was to chart home care employees’ experiences of collegial peer support during the pandemic. The study questions were what is employees’ collegial peer support like? And how could collegial peer support be developed? This study is part of a national project. The data were collected through themed group interviews conducted via the Teams platform. The participants were 15 nurses who work in the Pirkanmaa region. The data were analyzed through inductive content analysis. The home care nurses’ collegial peer support is based on trust and is visible as peer support that reinforces employee agency, multichannel communication and a customer-focused, organization-based approach. The respondents wished for supervisors’ support, official permission and training in experimenting with different forms of peer support. Through this study, collegial peer support in nursing has been made visible and modelled on a new conceptual level. The organization-based peer support that rose as part of the results offers an important perspective on the growing labor shortage in the social and health care field. The opportunities offered by collegial peer support between social and health care professionals require further study.

Keywords: collegiality, peer support, employees, home care, Finland

Introduction

In 2020, much of the world switched to remote work because of the COVID-19 pandemic and still has not returned to the old normal. Superiors in particular have switched to remote work, but so have to some degree employees working in professions that allow for it. The changed situation requires rethinking interaction and communication, as close contacts and informal hallway meetings have become rarer or even ceased. The COVID-19 pandemic has been found to increase employee anxiety. They need therapy, well-being activities, counseling and psychological, telephone and culture and religion-based support (Siddiqui et al. 2021). In remote work, social connections can easily decrease to just one’s family and local friends. Late e-mails and a work culture where everyone works constantly...
can also increase. This challenges superiors to examine both their own and their employees’ well-being at work (Grant et al. 2013). The decrease in social connections is a threat to peer support, which is often given and received in normal everyday situations. When such situations are rare, giving and receiving peer support may suffer. Remote peer support requires technological skills and access to communication devices (Haapakoski et al. 2020).

In home care, as in many other areas of the social and health care field, many professionals work independently without the presence of their colleagues. Without contact with their colleagues, they may receive little professional peer support. They can instead receive professional and collegial support remotely, which can improve the quality and sense of their work (Heikkonen and Ylönen 2010).

Home care personnel resources mainly consist of home care assistants, home helpers and practical nurses. They help and support clients who need assistance because of an illness or diminished capability in matters such as everyday tasks and personal functions (STM n.d.a 2022). As the population ages, the number of clients who require home care services will increase, which will cause a need for more resources. The home care service field is undergoing change, and in the future more services will be offered to clients at their homes. This qualitative study charts home care employees’ need for peer support and its realization during the pandemic. The study is part of a broader national project.

Theoretical Background

Peer Support: Processing Emotions

On a practical level, daily or weekly opportunities for colleagues to communicate officially or unofficially create opportunities for peer support (Noguchi-Watanabe et al. 2016). One central prerequisite for peer support is confidentiality (Kuipers et al. 2013). An encouraging workplace culture and organizational support also advance discussions of difficult matters as part of peer support (Elmir et al. 2017). During a crisis such as the pandemic, effective leadership and communication are particularly needful (Siddiqui et al. 2021).

Collegial peer support is needed in nursing to process emotions. Matters that arouse emotion include patients’ care, their loved ones and ethical questions related to care. Managing relationships with colleagues and ideological and organizational demands and conflicts can also arouse emotion (Riley and Weiss 2015). A study focusing on oncological nurses (Ventovaara et al. 2021) found that a lack of time and insufficient personnel resources were the most common factors causing moral anxiety, which could be reduced through good collegial relationships.

The results of a study conducted among young doctors (Riley et al. 2021) show that collegial support was seen as an important buffer between emotional anxiety and the negative effects of work conditions and cultures. Young doctors want to work in an encouraging workplace culture which has good relationships, a strong team morale and a shared responsibility of the workload.
Employees may avoid seeking collegial peer support if they are afraid that seeking help would mark them as weak and incompetent. If people in leadership positions openly tell the workplace community about their personal struggles, it may have a positive effect on employees and advance their seeking peer support (Emerson and Bursch 2018).

Peer support relationships with colleagues may also be challenging, which is why those who need peer support may fail to seek it out of fear of burdening their colleagues (Billings et al. 2021). In Billings et al.’s (2021) study, colleagues and co-workers were the first supporters of workers in the social and health care field. The study also found that receiving peer support quickly was often necessary. According to the respondents, people of similar ages are the quickest to give peer support and can also identify with the speaker’s experiences.

Lampinen et al. (2018) studied the sense of togetherness among lower and middle managers in the social and health care field. Superiors’ sense of togetherness was improved by e.g., support, in which factors such as mutual help and support, collegiality, sharing experiences, open access to information, professional guidance and personal relationships and networks were important.

Noguchi-Watanabe et al. (2016) studied how peer support can enhance a workplace’s retaining power. Peer support would help nurses express their emotions in e.g., situations where the nurse had felt hurt by a client’s words or attitudes. Peer support made them feel better when a colleague would listen actively and show compassion. As home care nurses work highly independently and make decisions at the client’s home, they told each other what they did for the client and received support for their decision from each other. Colleagues also gave each other subtle hints on how issues could be approached from a new perspective.

McDermid et al. (2016) studied the formation of resilience among nurses who became academic researchers. Peer support helped improve nurses’ ability to change, to reflect on difficult situations, to learn from them and to continue working. Developing collegial relationships may create firm, positive bonds that help in meeting challenges at work (McDermid et al. 2016). Collegial support, a robust workplace culture and emotional well-being are, according to Riley et al. (2021), connected to the ability to cope with the demands of work. A supportive workplace culture involves offering practical support and sharing responsibility and the workload. Collegial peer support may also increase a sense of togetherness (Lampinen et al. 2018).

**Peer Support in Crisis and Acute Situations**

Elmir et al. (2017) found in their study that collegial peer support is needed in crises related to unexpected events at work, such as difficult deliveries. An encouraging workplace culture and organizational support help employees’ process their emotions, guilt and feelings of incompetence caused by acute situations. Collegial peer support in crisis situations is highly important in enabling the affected to continue working (Elmir et al. 2017).
Johnson et al. (2019) studied medical physicists’ needs for seeking social peer support. The results show that medical physicists sought social support after stressful situations and medical errors. Stress can be caused by personnel conflicts, bullying and physical and verbal aggression by co-workers. Stressors on the organizational level include a lack of support from the leadership and a lack of sufficient resources (Foster et al. 2021).

Finney et al. (2021) studied the “second victim” experience and support for it among midwives and nurses. The concept “second victim” refers to a situation where an employee has made a professional error or there has been a “close call”, which has traumatized the employee. Nearly half of the nurses participating in the study (n=310) had experienced such a situation, which had caused psychic suffering, plans to change jobs and the lowering of professional self-esteem. Ninety-six percent of the respondents found peer support the most desirable form of support.

In Rodrigues et al.’s (2021) study, those who work in mental health also found that they needed collegial peer support through sharing their experiences after various acute care situations. The participants would have needed more peer support than they received. Nurses who switched to careers in academic research wished for more peer support in managing difficulties and challenges related to their new role (McDermid et al. 2016).

Collegial peer support is highly important in crisis situations to ensure that the affected person can continue working (Elmir et al. 2017). Peer support can also be a source of collective power in managing outside threats or resisting excessive and groundless demands from above (Swedberg et al. 2013). Collegial support can also have a positive effect on creativity, as Zaitouni and Ouakouak (2018) found in their study, whose targets were superiors and employees at eight different organizations.

Remote Peer Support

Mercieca and Kelly (2018) studied collegial support and its need among teachers in the beginning of their careers by interviewing 22 teachers. The respondents’ primary source of collegial support was Facebook, in which the teachers participated in private online groups to receive support during various brief and casual employments. They also received collegial support through connections they had formed during their pedagogical studies. The teachers sought support in challenging situations, such as when they found their work environment hostile.

Jenkins et al. (2021) studied online peer support among recently graduated nurses and found that such support could be particularly important in managing anxiety and overstrain during the pandemic, as many employees are isolated and working under pressure. Some also wished for in-person meetings, in which trust could be built. Others felt that fully anonymous participation in peer groups should be possible (Jenkins et al. 2021).

Online peer support can offer a durable and easy way of advancing personnel well-being and job retention (Jenkins et al. 2021). The ideal peer supporter was a
colleague from a different facility who knows the job conditions but is sufficiently distant (Johnson et al. 2019).

**Peer Support Programs**

The basis for a peer support program created by the Royal Brisbane Hospital and a women’s hospital’s department of anesthesia and perioperative medicine was the mental strain and mental health problems experienced by doctors. The peer support group was tailored for local needs and offered confidential peer guidance and a psychological safety net focusing on collegial support in stressful situations and the advancement of a culture of understanding at the workplace (Slykerman et al. 2019).

Kuipers et al. (2013) studied professional peer group guidance in multiprofessional groups that offered professional support to healthcare professionals (n=613). The groups were not based on leaders or experts, but on peers challenging and supporting each other in developing practices and seeking to find solutions. The average size of the groups was five and 60% of them met monthly for 1-2 hours at a time. Some of the groups made formal documentation of their meetings while others did not. The groups that used formal documentation and assessed the groups’ functioning in some form felt that their groups had better processes and results than groups that did not. These groups also had established ground rules (Kuipers et al. 2013).

Shapiro and Galowitz (2016) have modeled the central phases of peer support discussions in their peer support program: forming contact, breaching the topic, listening, reflection, reframing, utilizing experience, discussing coping strategies, ending discussion and ensuring the other person’s access to resources. The peer supporter contacts the supportee via e-mail, explains their reason for contacting them and asks the supportee to call the peer supporter or to inform them on when they are available for contact. When the call or meeting happens, the supporter asks the other party to tell them what has happened. Listening in this conversation means that the peer supporter asks about the supportee’s condition during the acute situation (Shapiro and Galowitz 2016).

During reflection the peer supporter shows respect and reinforces the supportee’s emotions by e.g., highlighting the facets of the supportee’s emotions related to their sense of responsibility and commitment to work. During reframing the situation is placed in a correct perspective. The supporter tells the supportee that everyone makes mistakes and that it is the organization’s responsibility to create a system where the effects of mistakes are not felt by patients. They emphasize that the supportee is not a bad doctor or nurse. Utilizing the experience involves the peer supporter encouraging the other party to use the event to create positive quality and safety changes within the organization and their personal life (Shapiro and Galowitz 2016).

In coping strategy, the peer supporter tries to gain an understanding of the supportee’s personal coping strategies, discusses their support systems and emphasizes the importance of self-care. They can ask how the supportee has previously managed similar situations. Finally, the peer supporter calms the
situation by telling the other party that they will feel better with time. However, if the situation continues to bother the supportee, they will always receive help upon contact (Shapiro and Galowitz 2016).

One suggestion that has been made by Rodrigues et al. (2021) is that the employer should create a program of peer support and arrange for an independent advisor, who could help in various situations. The study participants wished for trained trauma and peer support workers, who would have a professional understanding of their work and experiences (Rodrigues et al. 2021).

**Summary**

In summary, the basic prerequisite for collegial peer support is trust between the parties, upon which communication is built. The persons seeking peer support needs courage in making themselves vulnerable and their need visible. An encouraging workplace culture and organizational support can create an environment for peer support to thrive. Opportunities for technology-based, anonymous participation grants additional chances for receiving support independent of time and place.

Collegial peer support is needed to process emotions caused by workplace experiences. These experiences are related to e.g., ethical questions, conflicts, stress, feelings of guilt and incompetence, management of relationships and experiences of anxiety and overstrain. Various challenging situations at work arouse emotions. Situations of change at work or in one's work role also create a need for peer support. The most serious situations shown by the results are employees’ serious errors and “close calls”.

The studies clearly showed that collegial peer support is primarily given in-person from one individual to another during everyday work situations. Virtual individual or group support is a newer form of support that can work as e.g., a non-stop virtual break room or a closed Facebook group. Along with individual support, these results show the importance of support groups, whose size and participants can vary depending on the day. More organized forms of peer support also exist, such as individual peer support programs for doctors, multiprofessional and multidisciplinary peer support groups for healthcare professionals and a modeled process of peer support conversation.

Collegial peer support can advance work retention, personnel stability and well-being and individual skills, capability, performance and creativity. Peer support can increase a sense of togetherness in the workplace community, which can help in meeting work challenges. Strong collegial support also increases employees’ collective power.
Conduct of the Study

Aims and Objectives

This study was conducted as part of the national The More Remotely – work in social and health care is changing project (2019-2022) in 2021. The purpose of the study was to chart the experiences and needs of peer support among social and health care field employees working in home care. The aim was to produce new information on collegial peer support that can be used in the social and health care field and disseminated nationally and internationally. This study answers the following research questions:

1. What is employees’ collegial peer support like?
2. How could collegial peer support be developed further?

Method

Data Collection Instrument

The study’s target group was employees of different home care units in the Pirkanmaa region who participated in the More Remotely project. This target group was believed to give the most comprehensive answers to the study questions. They were also chosen because they could give the perspective of employees on these topics.

Pirkanmaa has 23 municipalities and more than half a million inhabitants according to data from 2020. Home care is provided as a social and health care service to all inhabitants over the age of 18 who require it due to diminished capability, illness or other reasons. Home care consists of home service and home nursing. Older adults are the largest group of clients (https://tampere.fi/en).

Fifteen nurses from home care took part in the group interviews. The contents of the group interviews were formed using previous studies and literature on the topic, yielding the following themes: 1) peer support as a concept and practical action, 2) remote peer support as a concept and practical action, 3) peer support during the project in in-person and remote meetings and 4) needs for further development of in-person and remote peer support.

Data Collection

The interviews were conducted in September and October of 2020 during three separate sessions. Due to the COVID-19 pandemic, the interviews were held remotely and saved through the Teams application. The themes of the group interviews were sent via e-mail to the interviewees prior to the sessions. The save function was tested beforehand. The interviewee groups consisted of 2-9 people and the sessions lasted for 38-45 minutes. Some of the interviewees participated in the middle of their workday, which is why distracting noises could sometimes be
heard in the background. Some interviewees participated by sharing a computer. Some interviewees did not have access to a web camera or a microphone, so they participated via written messages sent through the Teams chat function. The interviewers read these messages aloud to the other interviewees to stimulate conversation.

The group interviews were scheduled well ahead of time. The themed questions were sent to each home care employee invited to the group interviews via email beforehand to allow them to better prepare for the interviews. Some interviewees had to leave the session during the group interviews. This did not, however, hinder the other interviewees’ participation. Some interviewees left the sessions in the middle without comment or participating in the interviews. They have not been counted among the 15 interviewees.

The interviewees were allowed to comment freely on the themes in all three remote group interviews. The functioning of the Teams application was tested at the beginning of each interview and the interviewers ensured the interviewees could all hear them. The aim of the group interviews was to foster free and spontaneous discussion. The interviewers only participated by clarifying the themes at the interviewees’ request and to move the conversation further by theme, based on the questions. The interviews progressed according to the pre-planned structure. The interviewees showed respect to each other by giving each one a chance to speak.

Data Analysis

The data were analyzed through inductive content analysis (Tuomi and Sarajärvi 2018), as the subject was a phenomenon that has received scant scholarly attention in Finland. As cultural features and the effects of the pandemic on peer support vary, study results between countries may vary as well. Qualitative research can be used to discover the specific features of peer support in Finnish nursing. The basis of qualitative research is the description of existing life, which includes the thought that reality can be multifaceted. The aim of qualitative research is to study its target as openly as possible, without preconceptions and to reveal and discover facts (Hirsjärvi et al. 2013, p. 161). Qualitative research is based on humans with their sphere of life and related meanings (Kylmä and Juvakka 2014, p. 16).

The interviews were saved through the Teams application for transcription. The data were transcribed by the researchers into text. The transcription left out pauses, vocal emphasis and symbols from the messages sent by the interviewees. This was considered sufficient accuracy for reliable results. Some dialect and colloquial expressions were also given more standard forms to ensure anonymity.

After transcription the data were read through several times to form a complete picture before analysis. Significant original expressions were found and then reduced and placed in a table. The reduced expressions were searched for similarities and differences, which were combined to form subcategories. The subcategories were combined to form categories. Finally, the categories were combined to form main categories that serve as unifying concepts. The content
analysis is based on inductive reasoning. Examples of the process are presented in Table 1.

The employees’ experiences and development suggestions related to collegial peer support yielded 147 reduced expressions. These were grouped into 46 subcategories. These were then combined into 13 categories, which were then formed into 4 main categories.

Table 1. An Example of the Analytical Process

<table>
<thead>
<tr>
<th>Reduced expression</th>
<th>Subcategory</th>
<th>Category</th>
<th>Main category</th>
</tr>
</thead>
<tbody>
<tr>
<td>The clients receive even-quality service</td>
<td>Peer support in client work and with clients’ business</td>
<td>Peer support to ensure client-centric services</td>
<td></td>
</tr>
<tr>
<td>Using others’ ideas and support in client work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussing challenges to clients’ coping at home</td>
<td>Thinking about clients’ coping at home</td>
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<td>Thinking about clients’ coping at home</td>
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<tr>
<td>In difficult wound care</td>
<td>Difficult wound care</td>
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<td></td>
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<tr>
<td>Severe wound</td>
<td></td>
<td>Peer support in demanding care situations</td>
<td>Peer support that reinforces client-centric care</td>
</tr>
<tr>
<td>Memory patients’ behavior issues</td>
<td>Memory patients’ care</td>
<td></td>
<td></td>
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<tr>
<td>Memory patients’ eating.</td>
<td></td>
<td></td>
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<tr>
<td>Increasing services</td>
<td>Increasing services or transferring their start</td>
<td>Peer support to ensure necessary and correctly timed services</td>
<td></td>
</tr>
<tr>
<td>Transferring services</td>
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<td></td>
</tr>
<tr>
<td>Client coping</td>
<td>Client coping at home</td>
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<td></td>
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<tr>
<td>Client’s worsening condition</td>
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</tbody>
</table>

Ethical Approval

According to the guidelines of the Finnish National Board on Research Integrity (TENK 2012), only research that is conducted according to good scientific practices can be ethically acceptable and reliable and believable in its results. The study participants were informed of the study’s contents, progress, voluntariness and the expected duration of the interviews. The participants were told how the information would be used, how the results would be published and how the data would be destroyed. The study was authorized by the project’s manager. The study was conducted using good scientific practices, such as honesty, accuracy
and diligence throughout the research process, in saving and presenting the results and assessing the study and its results (TENK 2012).

The participating employees were sent the interview’s structure and a research notice before the interviews via e-mail. The interviewees electronically signed a document stating their informed consent to participating in the study. The notice contained information about the interview’s topic, duration, location and the fact that it was being recorded. The notice also stressed the voluntary nature of participation. The original expressions were stripped of identifying information such as names and locations, and dialect and colloquial expressions were rewritten to standard Finnish to anonymize the participants.

Results

Nurses’ Collegial Peer Support Model

Inductive content analysis of the data yielded the concept of nurses’ collegial peer support, which contains forms of peer support that reinforce agency, client-centricity, use of multiple channels and an organization-based approach (Figure 1).

Figure 1. Nurses’ Collegial Peer Support Model

Peer support was experienced broadly as reflection on both small and large matters. Peer support takes place and is used practically daily during shifts. Support is given and received multiple times a day. The respondents emphasized that peer support should happen all the time so that it remains a regular mode of operation. The nurses reported being such a close working community that they could discuss matters freely with each other.

Peer Support that Reinforces Agency

Peer support that reinforces agency is confidential and reciprocal support that reinforces well-being at work and the ability to reflect (Figure 2)
Peer support requires trust between the parties so that they can ask for things and support. Peer support is used to transmit information and to review the workplace community’s rules, operating models and agreements. The respondents felt that their current level of support was sufficient.

“I guess peer support would need to… be based on trust…”
“…so that we remember the ground rules and what we’d agreed…”

Peer support was seen as reciprocal. The nurses felt that peer support is highly important for colleagues doing the same work. Peer support was also seen as a highly significant element in care work, and work was seen as much more cumbersome and difficult without peer support. The nurses felt that all contribute to giving, receiving and asking for peer support. The nurses felt that they could not manage their work without others and that without peer support their well-being at work would certainly weaken. There are always opportunities for offering peer support by e.g., asking how a coworker is doing or how they are feeling. It is not always necessary to wait for the other party to say they were in a difficult situation, as peer support can be offered without prompting.

“… I couldn’t manage, if well-being at work wasn’t on the level it is now.”
“…and then you can ask the coworker how you’ve been doing with this (client)…”

Based on the interviews, the nurses felt that sharing difficult and challenging matters with others helps and creates a feeling of not being alone with problems. They also thought that challenging work situations depended on how the nurses experienced the situation. Reflecting and reminiscing on difficult situations together was also seen as a necessary practice.

“…if there’s a more difficult or conflicting matter, it’s nice to share it with a coworker.”
“You feel that at least you aren’t alone with the problem.”

The nurses felt that it was important to receive support for their own thoughts. They described their sense of security being reinforced if they had discussed matters with colleagues, which allowed them to feel more secure in their skills at
the client’s home. They also emphasized the importance of discussing matters that troubled them at the office.

“…You feel more secure the next time you go to the client’s, if you’ve talked about it with colleagues…”
“…That way you can sort of get reinforcements for your thoughts from others…”

Joint decisions and solutions in unclear matters were seen as peer support. Thinking about decisions and solutions together made matters clearer. They felt that they would learn from experience, which would improve the quality of their work. This was seen as important between people doing the same kind of work. The importance of discussing matters together arose when something exceptional had happened.

“…we think a lot about decision making and solutions together, when they aren’t so clear.”
“That’s of course important, when we do the same work, to share those things…”

Peer Support that Reinforces Client-centricity

Three categories emerged under peer support that reinforces client-centricity: peer support to ensure client-centric services, peer support in demanding care situations and peer support to ensure necessary and correctly timed services (Figure 3).

**Figure 3. Peer Support that Reinforces Client-centricity**

![Peer Support Diagram]

Nurses used peer support to ensure client-based services in client work and when managing clients’ affairs. Peer support is needed to ensure clients receive even-quality service. Peer support is also needed in the case of clients who are marginalized or have mental health or substance abuse problems.

“...so that the clients receive even service…”
“You of course use others’ ideas and peer support in client work…”

The responders felt that they needed peer support for difficult client meetings or situations. For instance, nurses could immediately tell a coworker if they
needed support after a difficult house visit. Discussing matters together was seen as giving support with demanding care situations. Some such situations included difficult wound care or anomalous test results, which cause the nurses to discuss the client’s dosage. Nurses also feel that they need peer support in choosing suitable care measures. Caring for clients with memory illnesses was also seen as challenging, and the nurses sought peer support particularly in matters related to behavior disorders and eating. The nurses also consulted their coworkers in acute situations that involved sending the client to a hospital.

“…some clients respond well to one care measure for the same issue, when others need something else.”
“...if there’s already a difficult care situation, then …”

In relation to ensuring necessary and correctly timed services, the nurses mentioned discussions of the client’s ability to manage living at home. The nurses would discuss rescheduling the start of a service or care or potentially adding some new service. Nurses talk about the challenges clients face in managing at home, their worsening condition and when they should intervene.

“…what services are given or if some service should be rescheduled…”
“…when the client’s condition starts to worsen, we do talk about if we should do something and at what point …”

Peer Support that Reinforces the Use of Multiple Channels

Peer support that reinforces the use of multiple channels includes in-person and remote support, swift telephone-mediated support and communication channels during a crisis (Figure 4).

Figure 4. Peer Support that Reinforces the Use of Multiple Channels

Video-mediated peer support was considered difficult and foreign. It was not something the nurses had missed, and they believed they did not have time for it. Technologically mediated remote peer support works when the participants know each other already. The nurses did not believe that trust could necessarily be built via an application like Teams. They also had difficulty separating peer support and remote peer support from each other. They felt that sharing matters felt easier in
common break rooms or while working. The nurses preferred seeing their colleagues in-person to virtual meetings, where others felt one-dimensional. The pandemic had made in-person peer support rarer, which made giving and receiving peer support more difficult. Long breaks and vacations were seen as hindrances to peer support, as were summer vacations that made meetings more difficult. The nurses wished for time reserved for peer support.

“I personally like seeing people face-to-face…”
“People seem so one-dimensional on the phone and on Teams.”
“Well, remote peer support works… when we know each other… from before…”

During the More Remotely project, there was more discussion during in-person meetings than remote ones. The nurses felt it was pleasant and useful to hear how other nurses in other areas were doing. They also mentioned feeling relaxed talking with others, as they otherwise worked alone.

“… in those groups… it was pretty nice and useful, and nice to hear how the others were doing …”
“It’s also relaxing when you can talk with others…”

The nurses had become familiar with remote connections and the Teams application during the pandemic. They felt that even older employees had had the opportunity to learn their use. The nurses felt that they could not have helped learning to use applications for remote communication. Remote peer support was mainly conducted via phone, tablet, Teams or messages between nurses. The nurses had access to Teams but had used it very little as part of care work. They had not had significant problems with remote connections or Teams.

“You kind of had to learn how to use these remote connections…”
“Using phone and e-mail during remote work…”

As other technological means were unavailable during the beginning of the pandemic, phones were seen as enablers of swift and efficient peer support. Examples of phone-mediated peer support were venting calls or discussions about difficult clients. The nurses often ensured matters via calls to their colleagues, particularly in connection with new situations.

Peer Support that Reinforces an Organization-based Approach

Based on the interviews, the nurses wished their superiors were involved with planning peer support together with the employees. They wished that peer support would be developed through training and workshops. Nurses hoped they would receive sufficient training on remote peer support, along with a workshop in which the entire workplace community would participate (Figure 5).
Figure 5. Peer Support that Reinforces an Organization-based Approach

The nurses believed that some employees had insufficient communication skills, so there would be room for training and practicing communication skills at the workplace. Some were bothered by their colleagues’ failure to acknowledge their lacking communication skills.

The interviewees were, however, skeptical if advice given in training would become part of their workplace practice. They believed remote peer support done during the project was successful and felt that it was at a sufficient level.

“…the superior being there with us, developing peer support…”
“…I hope … that we’d receive enough training then…”
“… If we could get a workshop-type training…”

Discussion

Collegial peer support among home care nurses can be seen as peer support that reinforces agency, client-centricity, the use of multiple channels and organization-based approaches. Through this study, collegial peer support in care work has been made visible and modeled on a new, conceptual level (Figure 1). Facets of collegial peer support that were emphasized in the interviews were discussing and processing issues together, as was also found in the study by Elmir et al. (2017). The results of the study show that home care peer support is not organized, but rather spontaneous and instant support that occurs during the workday in various situations.

Peer support that reinforces agency emphasizes mutual trust, reciprocity and the strengthening of well-being at work and the ability to reflect. In this context, a person with agency is someone who recognizes their own scope for action, wishes to bear responsibility and to influence that which they can (Ruutu and Salmimies 2021, p. 17). Kuipers et al. (2013) also emphasize trust as the basis for peer support, as did the home care nurses. The interviewees did not mention fearing being branded as incompetent or weak if they asked for help, which was mentioned in the study by Emerson and Bursch (2018). The interviewees did not mention a failure to seek support out of fear of burdening one’s colleagues either, as was discussed in the study by Billings et al. (2021).
Workplace communities in home care use a great deal of peer support, in which all participate by giving and receiving support. Peer support also helped in reinforcing well-being at work in e.g., conflict situations, as was also found in the study by Jenkins et al. (2021). Nurses’ agency was reinforced when they received a colleague’s support for their own care decisions and reflections. Through sharing experiences, the nurses felt that they were learning new things and improving the quality of their work. Similar results were reached by Noguchi-Watanabe et al. (2016). According to Lampinen et al. (2018), supportive workplace cultures involve giving practical support and sharing the workload. Collegial support can also be used to increase a sense of togetherness (Lampinen et al. 2018), which can be detected in the interviewees’ responses.

The need for anonymous peer support was not raised in the interviews (Mercieca and Kelly 2018). This may be because home care is conducted in fairly small teams, which allows for actively sharing experiences in-person. The respondents were somewhat reluctant to use remote peer support and considered video-mediated interactions difficult. The study by Siddiqui et al. (2021) found that employees were anxious over the pandemic, which was not expressed in the interviews.

Peer support that reinforces client-centricity includes serious care situations and ensuring the provision of client-centric, necessary and correctly timed services. The interviewees felt they needed support with e.g., difficult meetings with clients, choosing the right care measures, starting or rescheduling of services and encountering clients. The study by Rodrigues et al. (2021) also found that nurses needed peer support that involved sharing their experiences after acute care situations. Johnson et al. (2019) and Finney et al. (2021) also mentioned seeking peer support after medical errors or “close call” situations.

In Riley and Weiss’s (2015) study, difficult and challenging situations aroused various emotions among nurses, who needed peer support in processing them. In this study, the home care nurses did not specifically mention emotions, but their descriptions of difficult and challenging care situations show that they too had had such experiences. The interviews did not include discussions of moral anxiety either, which was found in the results of Ventovaara et al.’s (2021) study.

Peer support that reinforces the use of multiple channels includes both in-person and remote support. Giving and receiving peer support in-person and via phone were more familiar and thus more popular. Video-mediated peer support was foreign to the interviewees before the pandemic, but video meetings conducted through Teams became familiar to them during the project and as the pandemic grew longer. Some of the interviewees did not see video-mediated support as necessary because it was foreign and unavailable to them at the beginning of the pandemic due to their lack of access to relevant technology. Some of the nurses reported Teams working well without problems. However, the studies by Jenkins et al. (2021) and Mercieca and Kelly (2018) found that online peer support enables swift and easy access to support. The pandemic has increased technological skills and advanced the use of remote peer support, as the home care nurses have reported.
Peer support that reinforces an organization-based approach expects superiors to participate in developing peer support, personnel training and workshops on teaching peer support. Some of the nurses felt that their workplace communities needed training on communication skills. The interviewees were interested in developing peer support and considered the participation and leadership of their superiors highly important. As previously mentioned, international peer support programs have already been developed (Slykerman et al. 2019, Jenkins et al. 2021, Shapiro and Galowitz 2016), which could be used as models in Finland. Collegial peer support can advance nurses’ work retention, as was found by Jenkins et al. (2021) and Noguchi-Watanabe et al. (2016).

Limitations of the Study

The interviews in this study lasted for 38-45 minutes. The interviews were conducted via the Teams application because of the COVID-19 pandemic. It was difficult to gain contact with the interviewees with means other than calling them directly by name, even when their cameras were on. In the final interview, most responses were written messages sent through the chat. These messages were read aloud by the researchers to stimulate conversation. In the previous two interviews, the researchers also repeated some of the questions, as sometimes the interviewees said nothing after the question was first asked. Some of the interviewees participated in the study during their workdays, which may have hindered their concentration. Distracting noises could occasionally be heard in the background, as the interviewees could occasionally be in the same space with their coworkers.

Some of the interviewees did not have a clear understanding of what the term “remote” meant. This became clearest at the end of the first interview. The researchers prepared for this by further clarifying the concept for the next two interviews in a more concrete fashion: it means all communication that does not take place in-person. Some were still confused and considered only video-mediated communication remote.

The interviewees’ remote devices were lacking, which may have affected the study’s reliability. Some interviewees did not have their own device and participated e.g., through a computer shared with another interviewee. Some of the interviewees did not have access to a microphone or a camera, so they contributed through written messages sent via the Teams chat. Some of the interviewees who participated through written messages were also on shared devices. The interviewees were asked to introduce themselves both via video and text to ensure the interviewers were aware of all participants.

Conclusion

Based on the many benefits of peer support discussed in the literature review and the results of this study, it is worth considering how collegial peer support could be systematically developed in Finland to increase the retaining and
attracting factors and general well-being at work in organizations of the social and health care field.

The concept of peer support has been used in the social and health care field for a long time in the context of peer support among patient and client groups and experts by experience. Collegial peer support between social and health care professionals thus requires clarification and new research on its potential and efficiency.

Peer support that reinforces organization-based approaches offers an important consideration for the growing labor shortage in the social and health care field. The impact of well-being at work on job satisfaction is significant, as was found by e.g., Ylitörmänen (2021). Cooperation increases nurses’ job satisfaction, which means organizations should identify and advance factors that increase cooperation between nursing staff (Ylitörmänen 2021).

The long-term labor shortage in the social and health care field has brought rapidly changing personnel to the field through part-time work and temp services. Brief and changing employment hinders the creation of tightly knit work teams, which also weakens retaining factors. There is no time to become familiar with one’s colleagues on a deeper level and collegial peer support cannot develop in an ideal fashion. The situation challenges organizations to consider how they can support professional peer support through e.g., commonly agreed familiarization programs and work practices.

The increased remote and multi-location work caused by the reforms in the social and health care field challenge organizations and personnel to consider the possibilities of collegial peer support. Remote connections to colleagues require versatile and functioning devices and knowledge of their use. Questions related to secrecy and the safety of the programs and devices used are highly important in the social and health care field and must also be considered in relation to communication between peers. All discussions are not within the purview of rules related to secrecy, so personnel training is important in this context.

The traditionally hierarchical nature of the field is often seen as a hindrance to developing one’s own job. As was discovered in this study, the respondents wished for support and official permissions from their superiors to experiments with different forms of peer support. Reinforcing agency with colleagues is built on mutual trust between both colleagues and employees and superiors. Collegial peer support enables both shared and broad-based responsibility in everyday patient and client work. Client-centric peer support also supports reinforcing the personnel’s agency.

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Belt and Road Initiative: 
Case Studies from Sri Lanka, Nepal and Thailand 

By Robert Smith *

The Belt and Road Initiative (BRI) has proved controversial amongst some members of the international development consultant community. Whilst the concerns are no doubt genuinely held, the questions that need to be answered are: What are the issues of concern? Are they unique to the BRI, or do they apply to all International Financial Institutions (IFIs)? Developing countries desperately need funds to achieve the 17 Sustainable Development Goals. They largely depend on International Financial Institutions (IFIs) such as the World Bank Group, Asian Development Bank, European Bank for Reconstruction and Development, and Asian Infrastructure Investment Bank. In addition, grants and loans can be provided by individual donor countries. Despite the number of IFIs, funds are limited, especially for major projects such as ports and airports. Examples from Sri Lanka, Nepal, and Thailand are provided to discuss the issues surrounding BRI projects in these jurisdictions. The most benefits to the country will come with the maximum level of involvement of all levels of society in the project. Nonetheless, China has made some miss-steps along the way.

Keywords: BRI, Belt and Road Initiative, International Financial Institutions, international development, infrastructure

Introduction

The Belt and Road Initiative has proved controversial amongst some members of the international development consultant community. Whilst the concerns are no doubt genuinely held, the questions that need to be answered are: What are the issues of concern? Are they unique to the BRI, or do they apply to all International Financial Institutions (IFIs)? How might they be ameliorated? Should the concept of caveat emptor apply, or should the lender have a higher level of responsibility?

Developing countries desperately need funds to achieve the 17 Sustainable Development Goals. They largely depend on International Financial Institutions (IFIs) such as the World Bank Group, Asian Development Bank, European Bank for Reconstruction and Development, and Asian Infrastructure Investment Bank. In addition, grants and loans can be provided by individual donor countries. Despite the number of IFIs, funds are limited, especially for major projects such as ports and airports. The Belt and Road Initiative has a role in providing additional funds. For instance, in 2018, the Organisation for Economic Cooperation and Development (OECD) considered that as a ballpark figure, BRI investments would add over US$ 1 trillion of funding for foreign infrastructure for the ten years from 2017 (OECD 2018, p. 3). The borrower must never forget that the BRI

*PhD Candidate, University of New England, Australia.
loans are often at “commercial” rates and need to be repaid in most cases (see, for instance, the analysis in Bandiera and Tsiropoulos (2019)).

Because of the somewhat opaque definition of what constitutes a BRI project, this paper focuses on the more common types of BRI investments in the three sample countries, namely loans and grants. As will be seen later in this section, BRI is also a branding exercise and can cover Foreign Direct Investment (FDI). Provided both parties are in agreement, there would not appear to be an issue with a country, sovereignly, deciding with a neighbour to invest in infrastructure.

Examples from Nepal, Sri Lanka, and Thailand are provided to discuss the issues surrounding BRI projects in these jurisdictions. In Nepal, the Government provided a long list of projects to the Chinese Government, which asked the Nepali Government to reconsider. At the same time, the Nepali government was split over signing a contract for a grant from the Millennium Challenge Corporation. In the case of Sri Lanka, there has been some international comment about how it overcommitted itself in loans. Thailand agreed to be part of the BRI by participating in the high-speed rail project, eventually connecting Portugal with Singapore. Thailand decided to commit to using Chinese designs and technology, but unlike Lao PDR, they would build and operate the high-speed rail within Thailand (Damuri et al. 2019).

The paper will then identify issues of concern from the examples cited above. Many of the issues are common to all IFIs, including the BRI. The lending conditions of the IFIs are generally more favourable than those of the BRI, with least-developed countries obtaining loans at very low-interest rates (see, for instance, Asian Development Bank (2021)). To obtain the most beneficial outcome for its country, the Government must ensure that the terms of the loan can be met, including the potential exchange rate fluctuations. The borrower should ensure that its social and environmental requirements will be met. The most benefits to the country will come with the maximum level of involvement of all levels of society in the project.

Nonetheless, China has made some missteps along the way. China may not have been as prudent as it might have been in its lending policies, leading some countries to over-commit. At times China, like the United States with the Millennium Challenge Corporation, has tried to interfere in the politics of the potential recipient (e.g., Nepal).

The Belt and Road Initiative

Chinese President Xi Jinping proposed the initial concept for revitalising a series of ancient overland trading routes between Europe and Asia in 2013 (Jie and Wallace 2021). In 2014 this concept was extended to include a “maritime silk road” connecting China, Southeast Asia, Africa and Europe but avoiding the Strait of Malacca.

OECD (2018) assessed the speeches of Chinese leaders and identified six objectives of the BRI, namely:
a. Increase trade and investment in the BRI.
b. Promote the establishment of free trade zones along the Silk Road.
c. Enhance financial cooperation to fund infrastructure.
d. Gain access to natural resources.
e. Strengthen transport infrastructure in the BRI corridors.
f. Deepen cultural exchanges in the region (p. 10).

Their analysis also identified six Chinese motivations for the BRI: connectivity, openness, innovation, sustainable development, energy and food security, more balanced regional development, and improved efficiency (pp. 13-15).

Whilst many foreign policy analysts argue that the BRI is an attempt by China to achieve political leverage over its neighbours, an analysis by (Cai 2017) shows that China’s motivations are more complex. He considers that among the aims of China are:

a. To spur growth in its underdeveloped hinterland and rust belt, it will have a “heavy domestic focus” (p. 1).
b. To address its chronic excess capacity, “[i]t is more about migrating surplus factories than dumping excess products” (p. 1).
c. “to export China’s technological and engineering standards. Chinese policymakers see it as crucial to upgrading the country’s industry” (p. 1).

A study by Chatham House assessed the BRI. It concluded that it is more about infrastructure and is an effort “to develop an expanded, interdependent market for China, grow China’s economic and political power, and create the right conditions for China to build a high technology economy (Jie and Wallace 2021 n.p.). They consider that China has three primary motivations:

a. Rivalry with the United States, including the need to create more secure trade routes to bypass the Strait of Malacca with China dispensing funds to other nations purely based on economic interests.
b. Providing an alternative market for its state-owned companies beyond its borders.
c. To stimulate the economies of its central regions, which are lagging behind the more prosperous coastal areas.

Their analysis found that the BRI was “a fragmented collection of bilateral arrangements made on different terms”. Fifteen ministries have some responsibility for BRI projects. In addition, there is the involvement of provinces and diplomats. They claim that the “vacuum of information from China feeds confusion and after mistrust.

“The Chinese state is the underwriter for the initiative via its four state-owned banks lending to state-owned enterprises. Other governments have criticized the Belt and Road for the lack of private sector participation, but there is little enthusiasm for the
Zawacki (2021) notes that while the “idea that China’s BRI projects trap recipient countries in debt has been challenged by researchers at a wide range of institutions, it is still a dominant narrative in Washington and elsewhere”.

It appears that the BRI may have mutated to become the Global Development Initiative (Brînză 2022). This conclusion is based on her analysis of speeches by Chinese leaders posted, in English, on the Ministry of Foreign Affairs of China website. There seemed to be a softening of language with the greater use of words such as “cooperation” and “partnership” instead of “initiative”. She suggested that, as the BRI has an “historical resonance through its Silk Road association”, “China shouldn’t give up on the BRI brand, but it should better articulate its goals and future actions in a way that won’t be perceived as harmful by other countries and entities such as the United States, the European Union, Japan, or India” (n.p.).

The Green Finance & Development Center, FISF Fudan University Shanghai, has analysed available BRI data up to the first half of 2022 and has provided several key statistics based on “provisional data” (Nedopil 2022, p 3). The key findings were:

(a) BRI financing and investments are at lower levels than in 2021, with 42% through investments.
(b) Cumulative BRI engagement stands at US$932 billion, with US$561 billion in construction contracts and the remainder in non-financial investment.
(c) No coal projects received financing or investments in H1 of 2022.
(d) Oil and gas constituted around 80% of energy investments and 66% of Chinese construction contracts.
(e) Green energy engagement was around US$2 billion.
(f) The average deal size for construction projects dropped from US$558 million in 2021 to US$325 million in H1 2022. Average deal size for investment projects increased due to a single US$4.6 billion oil transaction.
(g) The major recipient of Chinese investment was Saudi Arabia.
(h) BRI engagement increased in H1 2022, particularly in the technology sector.
(i) Engagement with BRI countries continued to outperform non-BRI countries.
(j) State-owned enterprises dominated BRI engagement.
(k) In 2021 global foreign direct investment (FDI), excluding China, grew by 40% over 2020 levels compared to BRI investments which decreased by 25%.
(l) Uncertainty in H2 2022 is expected to result in Chinese BRI engagement at lower but stable levels.
(m) Five project types are more likely to be investment targets: “strategic assets (including ports), trade-enabling infrastructure (including pipelines,
roads), ICT (e.g., data centres) resource-backed deals (e.g., mining, oil, gas), high visibility projects (e.g., railway)\(^{(n)}\).

In H2 2022, investing in smaller projects that are quicker to implement will provide better opportunities, whilst some projects may be mothballed.

With their “growing experience and requirements of Chinese regulators in applying international environmental standards”, Chinese contractors “can increasingly benefit from international and multilateral financing” (Nedopil 2022, p. 3).

Three statistics stand out. Chinese investment in the BRI has stabilised and is falling (point k above). This could be due to the economic impact of COVID-19 but also more conservative funding policies due to the uncertain economic times. Even more significantly, from a Chinese perspective, is the fact that it is providing income for its SOEs. They can now compete more competitively in the global market, which was one of the important aims of the BRI, as identified by the analysis cited earlier in this section. Nevertheless, the Chinese private sector does not seem to benefit from the BRI.

**Methodology**

This research focuses on three different Asian countries. They were chosen because of the author’s knowledge of the current situation in relation to their economic development, having undertaken international development activities in all three. It used the documentary research concept where reputable contemporary resources are analysed to understand better the BRI's impact in each of the jurisdictions – both benefits and disbenefits.

Sri Lanka has become the cause célèbre of the BRI sceptics. This gives rise to three basic questions:

(a) Why has Sri Lanka become a cause célèbre?
(b) Is the BRI responsible?
(c) Is the international response reasonable?

Nepal and Thailand illustrate the limited approaches available to a least-developed country compared to those available to a middle-income country. Both appear prudent in their approaches compared to Sri Lanka, which made one poor decision after another to enter a spiralling debt trap.

As the BRI has proved controversial amongst some members of the international development consultant community and the concerns are no doubt genuinely held, the questions that need to be answered are:

(a) What are the issues of concern regarding the BRI?
(b) Are they unique to the BRI, or do they apply to all International Financial Institutions (IFIs)?
(c) How might they be ameliorated?
(d) Should the concept of caveat emptor apply, or should the lender have a higher level of responsibility?

The paper analyses the available contemporary reputable sources to provide details of the history of the BRI in the three sample jurisdictions. It then seeks answers to the two sets of research questions.

Analysis

Each of the three case study countries will be considered individually. Sri Lanka will be considered first as it is often considered a case study of the adverse impact of Chinese funding on a national economy. The second case is that of Nepal, whilst at the same time was in negotiation with China about funding from the BRI. The final case study is that of Thailand, which has a much stronger economy and, at least as far as the fast rail project, has opted to reject BRI funding and rail operations but to adopt the Chinese specifications. Finally, the analysis investigates some missteps China has made in implementing its BRI program.

Sri Lanka

Background

Sri Lanka has become the cause célèbre for the BRI sceptics. This raises two questions:

a. Why has Sri Lanka become a cause célèbre?
b. Is the international response reasonable?

Sri Lanka occupies “an enviable strategic geographical position” (Kohona 2018). It sits in the middle of the Indian Ocean at the southern tip of India, opposite the Indian state of Tamil Nadu. This location is “the meeting point of the monsoon winds and swirling ocean currents” (Kohona 2018).

The close relationship between Sri Lanka and China is not surprising, as it has existed for around 2,000 years. Sri Lanka and China entered into diplomatic relations around the first century BCE (Weerasinghe 1995, p. 98). Buddhism was one of the driving forces responsible for developing cultural relations between China and Sri Lanka (p. 19). China came to know Sri Lanka from the time of Buddha up to the seventh century CE. There was a two-way flow of monks between India/Sri Lanka, and China along the Silk Road. Visits from China, including those of pilgrim monks Hsuan-Tsang (596-664 CE), I-Tsing (635-712 CE), wrote about Sri Lanka but did not visit (p. 19). Fa-Hsien travelled to Sri Lanka in 411 CE and stayed for two years (p. 23). Similarly, Buddhist monks and nuns travelled from Sri Lanka to China (p. 27).

The Sri Lankan population comprises 74.9 per cent Buddhist Sinhalese and 11.2 per cent Hindu Sri Lankan Tamil (Kohona 2018). In 1983 a civil war broke out between the Sinhalese-dominated Sri Lankan government and the Liberation
Tigers of Tamil Eelam (LTTE) insurgent group (Kohona 2018). The civil war did not end until 2009.

Some blame the BRI as the cause of the near destruction of the Sri Lankan economy. The Hambantota Port Project is given as a prime example to justify this position. As will be seen, the Hambantota Port was neither a BRI project nor a Chinese debt trap. Several other factors were the major contributors to the economic disaster that followed: a mismanaged attempt to move from chemical fertilisers to organic fertilisers resulting in significant reductions in crop yields; Parliament disregarding legal and economic advice and committing to the Colombo Port City; the actions of the Rajapaksa oligarchy as they ruled the economy to achieve their own ends.

Hambantota Port

Hambantota is the home base of the Rajapaksa family, whose forebears represented their native Hambantota on state and regional councils from before independence (Jacinto 2022). They came into prominence when Mahinda Rajapaksa became Prime Minister in 2004. “At the height of their power, the Rajapaksas appeared invincible as they signed mega infrastructure contracts and amassed fortunes while cracking down on minorities and journalists – and successfully evaded accountability in a state where they held all the reins” (Jacinto 2022). One of their early mega-projects was the Hambantota Port Project.

The history of the project has been documented by Brautigam and Rithmire (2021). The Canadian International Development Agency commissioned SNC-Lavalin to carry out a feasibility study which in 2003 found the building of the port was feasible. In 2006 the Danish consulting firm Ramboll came up with a similar conclusion but argued that the initial phase should be for transporting non-containerised cargo. The Colombo port, one of the world’s busiest, was already reaching capacity and was constrained by being in the middle of the city. The Sri Lankan Government approached the United States and India for funding which was rejected. China Harbor Group learned about the project and lobbied hard for it. The China Eximbank agreed to funding, and China Harbor Group won the contract. Sri Lanka was offered a 15-year USD 397 million commercial loan with a four-year grace period. When offered the loan with a fixed or variable interest rate, they chose the fixed rate of 6.3 per cent.

Instead of waiting to generate income from Stage 1 as recommended by Ramboll, the Government borrowed a further USD 757 million from the China Eximbank at an interest rate of 2%.

As they say: the rest is history and is discussed further below.

The Fertiliser Debacle

April 2021 saw the President prohibit the use of chemical fertiliser with the two-fold aim of promoting organic farming and reducing the outflow of US dollars to import fertiliser (De Silva 2022). Protests erupted, and the farmers demanded continued importation of chemical fertilisers or provision of organic fertiliser. The Government approached China and imported Chinese fertiliser, which was found to contain an organism that could cause crop failure. The
shipment was rejected, but Chinese pressure resulted in Sri Lanka paying compensation, Sri Lanka altering the quality standards and being required to have the samples tested in a laboratory of the company’s choosing.

Port City
In May 2021, the Colombo Port City Economic Commission Bill was approved by the Sri Lanka Parliament (Selvachandran 2021). Approval occurred despite the Sri Lanka Supreme Court observing that several clauses of the Bill were unconstitutional (Abeyagoonasekera 2021). As approval occurred during the COVID-19 pandemic:

> [...]he environment was conducive towards suppressing the democratic mechanism of public protest, discussion, and to bulldoze the Bill through. There are ample mechanisms in the Sri Lankan government’s political toolkit to turn down the Bill. It was simply not used against China. In other cases, such as India’s East Container Terminal project or for the US MCC grant, there were public protests and expert committees of inquiry. China’s strength in handling the local agency [...] is clear through this (Abeyagoonasekera 2021).

The Far-reaching Role of the Rajapaksa Family
The stories concerning the Rajapaksa family are legion. For the case of brevity, the focus will be on the swearing-in of the cabinet on 12 August 2020, as reported by Jacinto (2022):

> At the inauguration of the new cabinet, the President [Gotabaya Rajapaksa] took on the defence portfolio, contravening a constitutional amendment barring the country’s head of state from holding a cabinet post. His powerful brother, Mahinda Rajapaksa, became Sri Lanka’s new prime minister and was also named head of three ministries: finance, urban development and Buddhist affairs. The President then swore in his eldest brother, Chamal Rajapaksa, as minister for irrigation, internal security, home affairs and disaster management. Chamal’s son Sashindra was made junior minister for high-tech agriculture. The prime minister’s son Namal became minister of youth and sports. Barely a year later, Basil Rajapaksa was named finance minister, taking over the important portfolio from his brother, the prime minister.¹

This meant that by 2021 the President, Prime Minister, and four family members held the reins of power. The family’s senior members held eight ministries, and the two nephews took on more minor roles. Such a concentration of power could easily lead to a blinkered approach to economic crises, and subsequently, so it did.

The Collapse of the Government
By mid-2021, Sri Lanka was facing a major economic crisis (Selvachandran 2021). By January 2022, the crisis had reached the stage where the Government had to pay off debt or fund milk, medicines and fuel (Thowfeek 2022). Ten-hour power cuts occurred in late March due to a lack of fuel, and stand-by generators

¹Italics added.
owned by individual businesses were also useless for the same reason (Reuters 2022a). Civil unrest erupted, declaring a state of emergency on 1 April (Jayasinghe 2022). On 12 April, the Central Bank governor announced that Sri Lanka was temporarily suspending foreign debt payments (Reuters 2022b). On 9 May, as the major protests continued, Prime Minister Mahinda Rajapaksa resigned, leaving his brother Gotabaya to remain president and find a new prime minister (Dias 2022, Fraser 2022). The President offered to surrender some powers to the Parliament as the crisis grew (Francis 2022a, Hodge 2022, Perera 2022). The new prime minister, Ranil Wickremesinghe, a long-term opponent of the President, took office as prime minister for the sixth time (Francis 2022b). The President was forced to flee Sri Lanka and resigned on reaching Singapore on 14 July, with the Prime Minister serving as acting president (Masih and Farisz 2022). On 20 July, Parliament elected Wickremesinghe as the new president (Fraser et al. 2022). At the of writing in October 2022, the situation was calm, but the economic hardship of the population continued as the Government negotiates an economic bail-out.

Whose Fault is it, Anyway?

Sri Lanka was the cause célèbre of the BRI sceptics several years before the current economic crisis.

Singh (2022) has identified three arguments used by Chinese authorities and columnists to lay the blame:

a. *It is Sri Lanka’s fault* due to a weak economic foundation, lack of self-sustaining capacity, and long-term excessive borrowing with inappropriate debt structures.

Neither China nor Chinese loans are the main causes behind Sri Lanka’s economic challenges. After all, China has not forced Sri Lanka to borrow money. According to the Chinese, all loan requests have been made by Sri Lanka—an independent, sovereign nation that denominates its lending, investment, and project decision, according to its own needs—so it cannot blame China for its economic woes. The debt problem of a debtor country cannot be the responsibility of the creditor country (Singh 2022).

b. *It is the United States’ fault* because of Sri Lanka’s dependence on the United States dollar; as much as 60 per cent of Sri Lanka’s debt must be repaid in United States dollars. This is exacerbated by the increasing exchange rate as “the US is exporting inflation and tightening monetary policy” (Singh 2022).

c. *It is India’s fault* because they were the mastermind behind the “dubious debt trap theory”. Chinese commentators argue that India is upset about Chinese influence as India considers that Sri Lanka is within its sphere of influence. They also argue that India is anxious about Sri Lanka’s increasing closeness to China and India’s inability to match China’s ability to provide investment, loans, and aid to Sri Lanka (Singh 2022).
Despite the “blame game”, Singh (2022) argues that Sri Lanka’s ongoing economic crisis is a major cause of embarrassment to China. China is also worried that the crisis may “strengthen negative impressions on Chinese investments in other countries and impact their judgement about participating in the Belt and Road Initiative (BRI) now and in the future” (Singh 2022).

In an opinion piece in the China Daily, Xiaoqiang (2022) argues that the Sri Lankan debt trap is a “creation of the west” and is facing a foreign exchange shortage, not a debt crisis. He points out that Sri Lanka only owes China $3.38 billion in loans. In dollar terms, this is around ten per cent of the country’s debt in US dollars. In fact, China is only Sri Lanka’s fourth-largest creditor after the Asian Development Bank and Japan. This view is supported by Wignaraja and Attanayake (2022). They noted that external debt owed to China amounted to about 10% in April 2021, with 47% owed to international capital markets, 22% to multilateral development banks and 10% to Japan.

Jones and Hameiri (2020) investigated the role of recipient countries in shaping the BRI and concluded that the argument that it was shaped by Chinese debt-trap diplomacy was a myth (p. 2). One of the case studies was explicitly related to the Hambantota Port project, which is consistently used as an example of the pitfalls of dealing with China. They identified several misconceptions:

a. The project was proposed by the then Mahinda Rajapaksa government “in cooperation with a profit-seeking Chinese SOE [State Owned Enterprise]” (p. 13).

b. It was a commercial venture which created “vast surplus capacity” and “was one of several ‘white elephant’ projects promoted by Mahinda Rajapaksa as part of a corrupt and unsustainable developmental programme” (p. 13).

c. Debt arise from excessive borrowing “on Western-dominated capital markets and from structural problems within the Sri Lankan economy” (p. 13).

d. There was no debt for equity swap associated with the port lease but hard bargaining for a commercial lease. The terms of the lease resulted in the payment of $1.1 billion that Sri Lanka used to liquidate other debts and boost their foreign reserves (p. 13).

e. The port will be used by Sri Lanka’s southern naval command and not the Chinese navy, which cannot use the port (p. 13).

The last point is disputed. Ramachandran (2018) noted that analysts opine that this could change as Sri Lanka’s debt level increases and, with it more dependent on China. This concern gained traction when Chinese submarines docked in Colombo harbour twice in 2014.

More broadly, De Silva (2022) argues that:

Sri Lanka’s weak economic position, coupled with the Rajapaksa family’s past connections with Chinese President Xi Jinping, undermines Sri Lanka’s ability to exercise independent agency and autonomy. The fertiliser debacle [as discussed above] also demonstrates the likelihood that small states — particularly ones facing
economic hardships relating to debt repayment — will be forced to swallow China’s ‘bitter pill’ regardless of whether it is in the national interest of the country.

Unsurprisingly, China did not provide funding to Sri Lanka in H1 2022 (Nedopil 2022, p. 3). Conclusion: It is reasonable to conclude that China, and the BRI, in particular, are not to blame for Sri Lanka’s debt crisis.

Nepal

Nepal, a least developed country, is an interesting case study in that the Government has been negotiating with China concerning BRI projects and the United States concerning the Millennium Challenge Corporation (MCC). Since 2015 Nepal has been on devolving into a three-tier Federal system whilst the various political parties were part of a relatively dysfunctional political system (see, for instance: Ghimire 2022, Joshi 2021, Mulmi 2021, Sangroula 2021, Smith and Smith 2022, Wagle 2021).

BRI Agreement with Nepal

Nepal signed up for the BRI in May 2017 (Lamichhane 2022a). Nepal then prepared a list of 35 projects to prepare under the initiative. After assessing this long list of projects, China requested Nepal to reduce it to nine. The nine projects are:

- a. Kerung-Kathmandu Railway – railway linking Kathmandu and Tibet (further details are provided in the next section).
- b. Ratomate-Kerung 400 KV Transmission Line will be a joint project of the State Grid Corporation of China and the Nepal Electricity Authority. A cooperation agreement was signed between the parties in June 2018, but as of February 2022, there had been no meeting of the Joint Technical Group, and neither the Environmental Impact Assessment nor the Detailed Project Report had been completed (Fiscal Nepal 2022).
- c. Koshi-Gandaki-Karnali Economic Corridor.
- d. Madan Bhandari Technical University – Nepal sought a grant during President Xi’s October visit to Nepal. Apparently, China considered the proposed site unsuitable (Ghimire 2019). Nepal disagreed and is self-funding the institution. It also changed the original focus from a technical university to a general one, despite its proposed name being Madan Bhandari University of Science and Technology.
- e. Kimathanka-Hile Road.
- f. Tamor Hydropower Project – a 762-megawatt reservoir hydropower project (further details are provided below).
- g. Phukot Hydropower Project.
- h. Galchhi-Rasuwasagdi Road Upgrade.
- i. Dipayal-China Border Road.
Nepal is adamant that BRI projects should be grant-based and not loan based as its internal resources are not sufficiently large to debt-finance such large projects (Lamichhane 2022a). That the Government of Nepal acknowledges, this limitation shows a degree of sophistication on the part of its treasury and monetary authorities. It also leaves it open to the Chinese authorities to propose alternative funding modalities which would be acceptable to both parties. Such modalities could entail a mix of grants, loans and FDI. Another factor to consider is that China may consider some of the proposed projects not to be financially viable, regardless of the mode of delivery.

Kerung-Kathmandu Railway

The 170 km railway would link Kerung in southern Tibet with Kathmandu (Bhushal 2021). China prepared a pre-feasibility study, but it has not been released. The route encounters extremes, including topography, weather, hydrology and tectonics. These will make construction a challenge that will be further complicated because it cuts through the mountains near a fault zone. Although only around 1/3rd of the line lies within Nepal, it would consume almost half of the construction costs. It is estimated that 98% of the railway on the Nepal side would consist of tunnels and bridges. Nepal is seeking a grant, but China is reticent.

Nepal estimated that a detailed study for the railway would cost an estimated USD 313 million (Bhushal 2021). To further complicate matters, the proposed route will bypass major population centres meaning that the local population will receive little benefit from the railway. It will also traverse two national parks: one with endangered and vulnerable species, such as the red panda and the snow leopard; the other home to more than 300 bird species.

Even if these obstacles are addressed, there is a concern that the railway will significantly benefit China as it will have rail access to India and little benefit to Nepal trade (Bhushal 2021).

Tamor Hydropower Project

In October 2019, the Government awarded a contract to the Hydroelectricity Investment and Development Company Ltd (HIDCL) of Nepal and the state-owned Power China Corporation to construct the 762-megawatt Tamor reservoir hydropower project (Himalayan News Service 2019). It was to be built on a government-to-government basis under a public-private-partnership (PPP) model, with HIDCL investing 46% of the project cost and Power China 54%. The concession period is 30 years.

It is claimed that the Tamor Reservoir Project if installed at the design capacity of 765 MW, will affect and possibly submerge the under-construction Kabeli’ A’ and Lower HewaKhola Hydropower Project (21.5 MW), which has been generating electricity since April 2017 (New Business Age 2021). The “[h]igher water level in the Tamor river to meet the electricity generation output will increase the flow of water of its tributaries Kabeli and HewaKhola”.

It has not been decided how the two projects will be compensated to develop the Tamor Reservoir Project. Thus, on the one hand, ambiguity exists as to who will build such a large hydel project and how. And on the other, more complexity has
been added by allowing other projects to be built in the area where a larger project could be built (New Business Age 2021).

MCC Controversy

In September 2017, four months after signing up to the BRI, Nepal signed an agreement on a USD 500 million grant from the United States Millennium Challenge Corporation (Lamichhane 2022a). It has two components: a 400 kV high-voltage transmission line that will allow the export of excess power to India and the upgrading parts of the road network. It was Nepal’s largest grant agreement. Nepal was qualified to receive it as it met 16 of the 20 policy indicators set by the MCC. Parliament approved it on 27 February 2022 (Millennium Challenge Corporation 2022).

The internal machinations concerning the MCC have been reported in-depth in by the local news media (see for instance: Baral 2022, Bhattarai 2020, Giri 2022, Kafle 2022, Kumar 2021, Lamichhane 2022b, myRepublica 2022a, 2022b, 2022c, Sigdel 2020, Wagle 2022b). In essence, the question boils down to accepting one of two hypotheses: is it part of the United States Indo-Pacific Strategy to contain China? or is it a grant requested by Nepal to assist in developing its electricity and road infrastructure? In China’s view, as trumpeted by Jianxue (2022) in the Chinese Communist Party’s mouthpiece: the Global Times, is that:

[t]he US’ push for Nepal in terms of Millennium Challenge Corporation (MCC) and its once again baseless slander over China demonstrate that the MCC is nothing more than a pact with the geopolitical purpose of targeting China. […] MCC from the very beginning was a geopolitical tool under the disguise of infrastructure construction. Nepal is a country with independent sovereignty. It has the right to decide its own foreign policy. Nepal is China’s neighbour and the tradition of friendly exchanges between the two countries has lasted for thousands of years. The China-Nepal relationship is a model of mutual equality. Therefore, it’s unlikely for the US to pry Nepal away from China and such an attempt has, of course, caused dissatisfaction from the Nepali side. It is believed that Nepal will make very careful consideration on whether to ratify the MCC deal.

At the time (Wagle 2022a) noted that:

Lately, China was perceived to have cultivated more intense “brotherly” relations with the major communist parties of Nepal, clearly, at the expense of state-to-state sovereign engagement. This became more apparent recently by the frequent calls from Chinese Communist Party leaders to Nepali communist top hats when political opinion was vertically divided regarding the MCC with some for and others against it. It gave the impression that China was more interested in placating some chosen communist outfits of Nepal than consolidating official diplomatic relations.

The United States in Kathmandu expressed its view following parliament’s ratification. It stated that the decision as to whether or not to ratify the MCC Nepal Compact rested with the Government of Nepal (myRepublica 2022d). Further:
The Government of Nepal signed the MCC grant in 2017 after determining its goals to modernize Nepal’s energy and transportation sectors with the hope of helping more than 23 million Nepalis, which is nearly 80 per cent of the total population.

**Thailand**

The final case study is that of Thailand, a middle-income economy with a very extensive infrastructure portfolio. Whilst the current Government has a very close relationship with China, it has been reluctant to sign up for BRI projects. Le (2020) considers this results from a more prudent approach “mainly out of commercial considerations”. Even the number of BRI projects in Thailand is clouded by the fact that some categorise Chinese-funded projects outside the BRI agreement as BRI projects (Zawacki 2021). Analysis by Zheng (2022, p. 5) from verified sources found that since January 2021, Thailand had awarded one bid, started construction on one project, signed two contracts and had one project in progress. Of the five projects, two were in energy (one gas and one hydro), one in health and two in transportation (p. 6).

More broadly, and a concern for the ten nations of the ASEAN region, is the role of state-owned enterprises undertaking China-financed BRI projects. Seventy-six per cent of the Chinese companies undertaking BRI projects since January 2021 were state-owned (Zheng 2022, p. 7).

China hoped that Thailand would sign on to two signature projects: the Kra Canal and the Kunming-Singapore rail link.

**Kra Canal**

The Isthmus of Kra is the narrowest neck of land (135 km wide) through the Malay Peninsula, which joins southern Thailand with west Malaysia. A canal through the Isthmus of Kra has been a dream since at least 1677, during the reign of King Narai the Great, who initiated an investigation that found the project impossible (Cameron 2021). The dream has gained impetus over the last 40 years or so.²

The Government dismissed the concept of a sea passage in 2020 (Cameron 2021). The concept became a Thai Land Bridge that would use road and rail transport to carry goods to and from deep-sea ports on the Gulf of Thailand and the Andaman Sea. As well as costing less than digging a canal, it would avoid the generation of excessive environmental waste, as would be the case with a canal. It would also not be seen as cutting off the southern part of the country as the five southernmost provinces are embroiled in an insurgency. This solution would cut approximately 1,200 km and 2 to 3 days from a journey through the heavily congested Straits of Malacca.

China would no doubt prefer the Kra Canal as control of it would allow a more secure route for its oil and gas imports and allow easy access of its naval vessels to the Indian Ocean (Cameron 2021). Zawacki (2021) opines that the Kra Canal “may seem like only a sub-issue of the BRI in Thailand, but it exposes a

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²In 1991 the author was shown a letter signed by the then Prime Minister of Australia, Bob Hawke giving Australian government support for the company by whom the author was employed to be in a consortium to develop the Kra Canal. Nothing further proceeded at that time.
much larger challenge confronting the country and its citizens”. The concept of a Canal is also politically controversial as it would significantly impact fellow ASEAN members Malaysia and Singapore (Oxford Business Group 2018).

**Kunming to Singapore Railway**

The current phase is the 607 km link between Bangkok and Nong Khai on the border with Laos. Significantly this link is being fully financed by Thailand with Chinese design and technology (Damuri et al. 2019, p. 37). It will also be operated by Thailand (O’Connor 2022). In December 2017, the Thai Prime Minister signed a design and supervision contract for the Bangkok-Nakhon Ratchasima section (Oxford Business Group 2018). This 253 km double-track section has been designed to carry passengers only at a maximum speed of 250 km/h (Ghoshal 2022). In addition, Thailand denied China’s request for development rights within the right of way and on the adjoining land.

China continues to conduct a charm offensive about the benefits of the railway. This included quoting the Deputy Director of the Thai-China Belt and Road Research Centre: “[t]he China-Laos railway has inaugurated a new era for Laos. Thailand, if not being able to accelerate the construction of the railway project, will miss out on the opportunity” (Xinhua 2022). The charm offensive continued in May 2022 during an online meeting between the First Deputy Speaker of the Thai House of Representatives and the Vice Chairman of China’s National People’s Congress (Johjit 2022). During the meeting, the Vice-Chairman “said China is looking to connect railway routes from the country to Thailand’s EEC special economic zone” (Johjit 2022).

None-the-after less

Thailand seems more interested in connecting Bangkok with Nakhon Ratchasima in the northeast, Chiang Mai in the north, and to beach resorts like Pattaya and Hua Hin, than being part of some broader Chinese scheme for the entire region. Most of those plans, despite Bangkok’s years of repeated assurances to Beijing the plan is on track, remain on the drawing board (Lintner 2021).

Even the goal for the Nakhon Ratchasima to Nong Kai link may differ between Thailand and China as “Bangkok’s sights are firmly fixed on the narrow objective of boosting trade and exports into Laos and onto Southern China” (O’Connor 2022).

**Ambiguity in Thailand’s Response to the BRI**

The ambiguity in Thailand’s response to the BRI is best summarised in the following extracts:

As Thailand itself presents a unique situation to the BRI as a U.S. treaty ally, the world’s twenty-second largest economy (2019), an authoritarian democracy, and a superlative social media consumer, its civil society alternately ignores, accepts, welcomes, and opposes its numerous elements. This has been the case in Thailand for

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3What they failed to say is that the research centre is part of the Asian Institute of Technology and is formally called the AIT Belt & Road Research Centre (Asian Institute of Technology 2019).
the past eight years and can be expected to hold for the foreseeable future (Zawacki 2021).

The lack of progress on the rail project and partnership with China reflects growing unease in Bangkok about Chinese expansionism, even within the economic sphere, with the kingdom being pulled between competing financial and commercial interests from the United States and Thailand’s biggest investor Japan (O’Connor 2022).

But as Bangkok’s tarrying on the train is by now more clearly unstated policy than mere bureaucratic torpor, some observers, diplomats and officials perceive China’s slow but deliberate “encirclement” of the kingdom in an increasingly hard power play to get its way with the Thais (Crispin 2022).

**China’s BRI Lending Policy**

The whole BRI process appears to be somewhat opaque as the number of the projects, and their loan conditions are challenging to obtain (see, for instance, Bandiera and Tsiropoulos 2019, Zawacki 2021). The BRI financing must be considered in conjunction with a country’s total borrowing capacity:

Lack of transparency around the terms and size of Chinese financing also poses significant risks for countries and other creditors. Debt transparency is critical for borrowers and creditors to make informed decisions, ensure efficient use of available financing, and safeguard debt sustainability. It is also important for citizens to be able to hold governments accountable to their actions. In this context, it will be critical to build on past successful engagements with borrowing countries and the international creditor community, including China, while further enhancing the coordination of sustainable lending practices and debt restructuring regimes (Bandiera and Tsiropoulos 2019, p. 35).

It would be prudent for the BRI authorities to actively coordinate with the other IFIs so that there is no duplication of effort and all loan funds are considered in the loan negotiations. This would help to avoid situations such as that which occurred in the case of Sri Lanka where excess borrowing from various sources resulted in the collapse of the economy followed by the collapse of the government. To be effective, all donors and lenders should commit to such coordination, whether multilateral or bilateral donors and lenders.

**Wolf Warrior Diplomacy**

As noted earlier in the comments from (Wagle 2022a), during the deliberations about parliamentary approval of the MCC, China was perceived to have cultivated more intensely with the major communist parties of Nepal [of which there are a number] “at the expense of state-to-state sovereign engagement.” This was exacerbated by acerbic and inflammatory articles such as those from Jianxue (2022) in the Global Times.

Crispin (2022) considers that “the innately non-confrontational Thais” would prefer that the United States and China “would refrain from jousting for power and influence within the kingdom”. He claims that the recently appointed Chinese ambassador’s “go-go style [is seen] as pushy if not tone deaf”, with the result that
it “hasn’t won him many allies or advocates at Thailand’s Ministry of Foreign Affairs”. He concludes by quoting an anonymous top-level Thai official stating, “China sees us as a customer; the US views us as a partner; that’s always been the difference.”

Discussion

What has become clear from an analysis of the three case studies is that the BRI is an amorphous creation. Each of the three states has taken a different approach in its dealings with China.

Sri Lanka is in a dire financial state due to its previous profligate government policies and poor governance. It is currently beholden to China, but that is an outcome resulting from its behaviour and not the cause. At all times, the Government was responsible for its actions. Its issue was that it overcommitted in USD-denominated debt, which drained its foreign reserves. In retrospect, the international lenders and multilateral financial institutions should have been more rigorous in their due diligence and restricted their lending. To blame the BRI for its crisis is gratuitous at best and wrong, in fact. Despite this, it continues to this day to be a cause célèbre for the BRI sceptics, particularly those opposed to an expansionist China. In summary, a debt-ridden country, but the BRI is not the cause.

Nepal, on the other hand, although a least developed economy, has been more prudent in its approach to the BRI. The prudent approach has been the case even during periods of instability due to political infighting and the emergence of several so-called “communist” parties, all of which have very little in common with communist dogma except for their relationship with the Chinese Communist Party. Nepal has recognised the limits of its borrowing capacity and is pushing China for grant funding which China is rejecting. The nine projects accepted as BRI projects, notably the Kerung-Kathmandu Railway and the Tamor Hydropower Project, will be significant undertakings if they actually reach the construction stage. It is possible that Nepal may rethink the railway project if they do not see a benefit to Nepal and instead see it as an intermediate stop between China and India, with trade between the two flourishing at its expense. The furore over the MCC funding with political posturing and foreign diplomatic interference is a salutary lesson for governments to ensure that their constituency is well-informed and false narratives are not allowed to flourish. Most negative comments were ill-informed and purely used for party political purposes. In summary, a least-developed country with divisive politics but decisive decision-making (at last!).

Thailand already has a vast infrastructure programme and is not reliant on multilateral financial institutions for financing. Thailand has really dealt a blow to the two signature projects promoted by China. In the case of the Kra Canal, Thailand is developing a Land Bridge of a road and rail corridor with deep sea ports at each end. China desperately needed an alternative maritime link to the Indian Ocean to avoid the congested Strait of Malacca. From Thailand’s perspective, the political risk within its borders and with its ASEAN neighbours,
Malaysia and Singapore, would be too great. As for the Kunming-Singapore railway, Thailand has other rail priorities and appears reluctant to open a freight link as it perceives that it will benefit China to its detriment. Regardless Thailand will construct and operate the railway using its resources but has undertaken to use Chinese designs and technology. In summary, Thailand is not being duplicitous in its dealings with China but instead displaying common sense.

Conclusion

In conclusion, it is proposed to expand on the insights provided in the review by Jones and Hameiri (2020) as they apply to the three case studies presented in this paper and whether, in fact, they apply more broadly to all International Financial Institutions (IFIs):

- Project governance needs to be improved. As it stands, there is no clear indication as to what projects are BRI projects nor what China’s lending policies are. The only data available is from independent sources. Whilst there are specific concerns about project governance concerning BRI lending policies, which appear to vary project by project, governance is an issue that impacts all IFIs. Their lending and grant awarding policies may be transparent, but their overall governance still has issues. Project oversight can be variable and dubious practices can occur during the award and delivery of projects. Whilst the IFIs have systems in place to monitor and detect such abuses, they are still dependent on the honesty of the recipients and those in the supply chain, including Consultants and Contractors. Unfortunately, this is not always the case. Knowledge management is also an issue that must be addressed to provide the information across the entire organisation. This may also require a change to the organisational structure to improve governance.

- Chinese State-owned Enterprises (SOEs) are very active in BRI projects. Checks and balances must ensure they meet their fiduciary duties and adhere to the highest social and environmental protection standards. For instance, how will Chinese SOEs manage the extremes of topography, weather, hydrology, tectonics and environmental protection on the Kerung-Kathmandu Railway? The same checks and balances must be applied by all IFIs and recipients on all projects, with greater oversight on complex and sensitive projects.

- Policymakers, whether those involved with BRI projects or potential recipients, need to improve their capacity to have a realistic understanding of and appropriate responses to the BRI and be able to evaluate, negotiate and regulate BRI projects. Whilst not BRI-related, Sri Lanka has failed disastrously in this regard. Nepal and Thailand have fared much better, with Nepal only wishing to have grant aid and Thailand rejecting Chinese financing for the railway project and Chinese participation in the operation of the railway whilst at the same time utilising Chinese designs and
technology. Thailand also decided to develop a high-speed passenger line and not a freight line preferred by the Chinese. These issues are also a genuine concern with funding from other IFIs. Whilst the financial terms might be quite clear. This does not mean that the borrower has a good understanding of the impact of the funding. With multiple IFIs offering funding, there is a clear risk that more than one IFI provides funding to undertake an essentially similar task, especially with technical assistance. It would appear that IFIs need to consider whether the borrower is really as sophisticated as it first appears. Undertaking a risk analysis is a helpful starting point, and negotiations are undertaken at a sufficient level to ensure that each party is fully aware of the impact of its commitments. IFIs should share a higher responsibility than just adopting a caveat emptor approach.

- Infrastructure funding is desperately needed, and there are limits to current funding sources. Chinese funding should be welcomed, provided it is on just terms and for the right projects. Move away from the name-calling, whether it be about the BRI being part of China’s geopolitical strategy or the MCC being part of the United States’ geopolitical strategy. In the end, all funding has an ideological bent. What is often lacking is coordination between any or all of the IFIs operating in a country. Such a process should be required as part of each IFI’s governance structure and should be introduced on a sector-by-sector basis so that input can be obtained from the line departments of the recipient. The BRI organisations should be part of that process.

- All multilateral financial institutions and bilateral lenders should investigate other financial modalities. This will assist nations in meeting their development needs without falling into a debt trap, however caused. Foreign direct investment should be encouraged provided the recipient has assistance, if necessary, to develop the appropriate oversight framework and does not outsource these functions to the FDI provider.

- Engage recipients and China to improve BRI governance, especially the transparency of mega projects. The same rules should apply across all projects, with all IFIs ensuring that their governance and that of their clients meet best practice.

- Civil society and political opposition need to recalibrate campaigning and ensure they have the facts before embarking on a pro- or anti-BRI, MCC or other funding modality. This applies equally to all projects and all donors.

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A Study of Expected Demand and Aggregate Employment in the United States from 1948 to 2021

By L. Jan Reid*

The paper provides interim results of my PhD dissertation. The research hypothesis is “Firms increase and decrease employment in response to changes in expected demand.” The paper seeks to answer the question “What are the determinants of changes in aggregate employment in the United States of America (U.S.)?” This is an important research topic because significant increases in unemployment can have a profound effect on an entire society, not just on its unemployed workers. When employment declines, public health declines, crime increases, suicides increase, and public revenues decrease. The paper uses quarterly data from 1948-2021 to estimate the effect of important macroeconomic variables on aggregate employment. The macroeconomic variables include personal consumption expenditures, U.S. federal government expenditures, nominal GNP, international trade (imports plus exports), M3 money stock, the minimum wage level, non-residential fixed investment, non-manufacturing employment, and U.S. federal tax receipts.

Keywords: expected demand, employment, consumption, money supply, trade

Introduction

The paper takes the work of Lucas and Muth on expectations theory and applies it to an analysis of the labor market. The research problem is: “What are the determinants of changes in aggregate employment in the United States of America (U.S.)?” This is an important research topic because significant increases in unemployment can have a profound effect on an entire society, not just on its unemployed workers. When unemployment increases, public health declines, crime increases, suicides increase, and public revenues decrease. Government is then placed in the unenviable position of facing increased demand for public services at the very time that public revenue is declining (see Bell 2015, and Hawton and Haw 2013).

The author investigates the causes of changes in aggregate employment in the U.S.; to find whether theories exist that explain such changes; and to attempt to develop a new approach that will accurately analyze and explain changes in U.S. aggregate employment.

The paper focuses on aggregate employment rather than on the unemployment rate because of the problem of labor-force dropouts affecting the calculation of the unemployment rate. The unemployment rate is calculated by dividing the number of unemployed by the number of labor-force participants. An individual is not considered to be a member of the labor force unless either employed, or unemployed and actively seeking employment. When a recession occurs, some

*PhD Student, Cracow University of Economics, USA.
people tend to stop looking for work and thus are not counted in the official U.S. unemployment rate.

When the U.S. economy starts to improve, the size of the labor force will increase as more individuals start looking for work. The reverse is true when economic conditions deteriorate. For these reasons, the official U.S. unemployment rate might increase when economic conditions improve, and decrease when the economy declines.

Subsections *Historical Economic Theory, Rational Expectations & Growth Models* of the Literature Review were used to identify specific variables that some labor economists believe have a significant impact on employment. Based on the literature review, the following variables were used in the paper’s initial regression analysis: consumer price index, total nonfarm civilian employment, gross national product (GNP), percent of manufacturing employees, M3 money stock, federal minimum wage, nonresidential fixed investment, personal consumption expenditures, federal tax receipts, and trade (imports plus exports).

The literature review identifies one major research gap concerning studies of aggregate employment in the U.S.: a shortage of papers on the effect of expected demand on aggregate employment. Additionally, at the time of this writing, papers on aggregate employment have not been updated to account for the economic effects of COVID-19, which began in 2019. The author addresses these research gaps by submitting a paper on expected demand and aggregate employment and by using data for the period 1948 Q1 to 2021 Q4; thereby accounting for the economic effect of the COVID-19 pandemic.

Much is unknown about the relationship between expected demand and employment. Economists do not know how expected demand interacts with other macroeconomic variables such as taxes, government spending, gross national product (GNP), money supply, trade, and other variables. The most recent paper on the subject was written in 2017 by Mauro Boianovsky (Boianovsky 2020). Thus, there are no papers on the subject that account for the economic effect of COVID-19.

Public Policy

There are significant public-policy implications associated with this research. In an inflationary or in a recessionary environment, government should attempt to change consumer expectations and thereby decrease inflation or increase aggregate employment. It is common for government to allocate substantial funds in order to combat a recession. However, government often pays inadequate attention to whether the allocation of funds will effect economic expectations. A good example of this phenomena is the U.S. government’s experience with the American Recovery and Reinvestment Act (ARRA).

On February 13, 2009, the U.S. Congress passed ARRA in response to widespread fears that the U.S. was in danger of slipping into a 1930s-style economic depression (Reid 2009). The primary objectives of ARRA were to save
existing jobs and to create new jobs quickly. The Act included direct spending on infrastructure, education, health, and energy; federal tax incentives; and expansion of unemployment benefits and other social-welfare provisions. The rationale for ARRA was derived from Keynesian macroeconomic theory, which argues that during recessions, government should offset the decrease in private spending with an increase in public spending in order to save jobs and to stop further economic deterioration. Despite its provision of substantial funds, ARRA did not have a substantial impact on economic expectations in the U.S. as measured by public-opinion polls.

Right Direction/Wrong Direction (RD/WD) polls are often taken as a measure of forward-looking expectations. The last RD/WD poll conducted before the passage of ARRA (Associated Press-Ipsos) found that 25% of respondents felt that the United States was headed in the right direction. This fell to an average of 17% for the remainder of 2009. Expectations started to improve in January 2010, as 26% of respondents (NBC News Wall Street Journal Poll) felt that the U.S. was moving in the right direction (RealClear Politics 2021).

Hypothesis and Research Question

The objective of this paper is to determine the effect of expected demand on aggregate employment in the U.S. The Research Hypothesis is “Firms increase and decrease employment in response to changes in expected demand.” The paper confirms the hypothesis and finds that firms are risk averse and thus are overly pessimistic during both high growth and recessionary periods (See Table 2).

A variant of Okun’s Law is used to measure employment deviations from their expected values. The paper estimated that the coefficient of a 1% change in GNP with respect to the percent change in employment was 0.50 (See Table 12 in the Appendix). The expected value of the modified Okun Coefficient is 0.50 and that value is used in the analysis of the data shown in Table 2.

Literature Review

The literature review is somewhat nontraditional. In a traditional literature review, the researcher compares their paper to other papers on the same subject. Due to the shortage of papers on expected demand and aggregate employment, this was not possible.

The purpose of this literature review is to provide a historical overview of literature on employment, and to identify variables that some economists believe to have an effect on aggregate employment. The typical literature on employment focuses on a small number of variables which the researcher believes are statistically or theoretically significant. Thus, Okun focuses on GNP, Keynes on effective demand, and neoclassical economists on perfect competition.
The literature review helped me to identify the following variables that some economists believe influence aggregate employment. The ten variables (or groups of variables) suggested by the economic literature are:

1. Minimum Wage Level
2. Nominal Gross National Product (GNP)
3. Taxation
4. Education Level (only available annually)
5. Non-Manufacturing Employment
6. Unionization (only available annually)
7. Personal Consumption Expenditures
8. M3 Money Stock
9. Proxies for fiscal policy shocks
10. International Trade (Imports plus Exports)

The literature review explored the five subjects listed below. These subject areas were chosen because, taken together, they help explain much of the effect of the suggested variables on aggregate employment during the period of the study. The five subjects are: historical economic theory, rational expectations, growth models, labor economics, and data discrepancies.

**Historical Economic Theory**

The classical theory of employment was developed by Ricardo (1817), Say (1834), Mill (1848), Smith (1778), and Pigou (1933). Their theories postulate that if market forces are allowed to operate in an economic system, they will eliminate overproduction and make the economy produce output at the level of full employment. Other theories about employment include the neoclassical theory of employment (Vercherand 2014), and Keynesian theory (as described in “The General Theory of Employment, Interest, and Money”) (Keynes 1936).

Economic theory should not be taken as providing a definitive answer to an economic problem. Instead, researchers should view theory as guidance for the development of new research and applications. The paper notes that the theories mentioned above were first published from 85-204 years ago.

The U.S. economic system has changed significantly since those theories began to be published. These economic changes have included the abolition of slave labor, technological changes, democratization, urbanization, increased regulation, and legislative changes.

That an economic theory is inconsistent with current economic data does not invalidate the theory. It does suggest that more research is needed, and that the theory should be updated. For example, neoclassical economics is essentially an update of classical economics. Neoclassical economics integrates the cost-of-production theory from classical economics with the concept of utility maximization and marginalism.

Neoclassical economists argue that employment policy should attempt to achieve greater labor market flexibility and wage flexibility so that perfect
competition can be achieved. According to neoclassical economists, perfect competition will lead to the solution of the problem of unemployment (See Bentolila and Saint-Paul 1992, and Emerson 1988).

Keynes believed that employment depends upon effective demand. He defined “effective demand” as the point of equilibrium where aggregate demand equals aggregate supply. Effective demand results in output that creates income and employment. Keynes theorized that effective demand is determined by two factors: the aggregate supply function and the aggregate demand function. In Keynes’ view, the aggregate supply function depends on those physical or technical conditions of production that do not change in the short run.

Rational Expectations

Thomas Sargent has explained that “The theory of rational expectations was first proposed by John F. Muth of Indiana University in the early 1960s. He used the term to describe the many economic situations in which the outcome depends partly on what people expect to happen” (Sargent 1986).

Muth’s (1961) original work was popularized by Robert Lucas in the 1970s. Lucas incorporated the idea of rational expectations into a dynamic general equilibrium model (Lucas 1972). Lucas has argued that expected inflation influences price-setting behavior, and therefore expected inflation becomes actual inflation. Employment is affected by a similar process: expected demand affects the behavior of employers regarding increases or decreases in employment.

If employers expect that demand for their products and services will increase in a future period, they will increase employment to ensure that they retain their existing customers. Conversely, if employers expect that demand for their products and services will decline in a future period; they may dismiss workers in order to maximize profits or reduce expected losses.

Growth Models

Although the paper addresses the relationship between expected demand and employment, it is also useful to review the predictions of economic growth models. Okun’s Law is a linear model which states that a 2% increase in output (GNP) corresponds to a 1% decline in the rate of cyclical unemployment; a 0.5% increase in labor force participation; a 0.5% increase in hours worked per employee; and a 1% increase in output per hours worked (Okun 1962).

In the U.S., nominal GNP and total non-farm employment are highly correlated (0.80) for the period 1948 Q1 to 2021 Q4. The paper found that the relationship between GNP and non-farm employment was similar to the relationships predicted by Okun’s Law. As preliminary evidence, the paper estimated that the coefficient of a 1% change in GNP with respect to the percent change in employment was 0.50, which means that a 1% increase in nominal GNP should result in a 0.50% increase in total non-farm employment. Regression statistics are given in the Appendix to this document (See Table 12 in the Appendix).
Christopoulos et al. (2019) found that Okun’s threshold variable was endogenous and suggested a non-linear model. Guisinger et al. (2018) found that “indicators of more flexible labor markets (higher levels of education achievement in the population, lower rate of unionization, and a higher share of non-manufacturing employment) are important determinants of the differences in Okun’s coefficient across states.”

Nebot et al. (2019, p. 203) found that “differences between Okun coefficients below and above the threshold are consistent with the firm’s ‘risk aversion hypothesis,’ according to which unemployment responds more strongly during recessions than during expansions.” This paper confirms Nebot’s findings.

Robert Solow’s model explains changes in economic growth as a function of capital, labor, and technical progress.¹ The savings rate is determined exogenously. Using his model, Solow (1957) calculated that about four-fifths of the growth in U.S. output per worker was attributable to technical progress. One of the major flaws in the Solow model is that fluctuations in employment are ignored.

Labor Economics

Labor markets function through the interaction of workers and employers. Labor economics looks at the suppliers of labor services (workers) and the demanders of labor services (employers), and attempts to understand the resulting patterns of employment, wages, and income. These patterns exist because each individual in the market is presumed to make rational choices based on the information that they know regarding wages, the desire to provide labor, and the desire for leisure.

David Romer has explained that “Firms’ demand for labor is determined by their desire to meet the demand for their goods. Thus, as long as the real wage is not so high that it is unprofitable to meet the full demand, the labor demand curve is a vertical line in employment-wage space. The term effective labor demand is used to describe a situation, such as this, where the quantity of labor demanded depends on the amount of goods that firms are able to sell” (Romer 2019, p. 248).

Romer (2019) does not account for the marginal product of labor, or for the time lag between hiring workers, training workers, producing a product, and selling that product. This paper notes that the amount of goods that firms are able to sell in a future period is unknown.

Using a New Keynesian model, Gali (2013) found that wage flexibility (e.g., no minimum wage) does not always improve social welfare. Gali (2013) criticized the classical theory of employment for implicitly assuming that firms view themselves as facing no demand constraints.

Graham and Anwar (2019) noted that labor markets are normally geographically bounded, and found that the rise of the Internet has brought about a “planetary labor market” in some sectors (Graham and Anwar 2019).

Labor economists have suggested five subject areas that may explain changes in aggregate employment. These subject areas are discussed below.

¹Technical progress is often referred to as “knowledge” or the “effectiveness of labor.”
The Minimum Wage Level

The effect of increasing the minimum wage on employment is a controversial subject. Alan Manning has pointed out that “A central concern in the [employment] estimates . . . is whether one has controlled appropriately for economic conditions affecting employment other than the minimum wage. Failure to do so effectively will lead to bias if the minimum wage is correlated with the omitted economic conditions” (Manning 2021, p. 12).

Meer and West (2016) found a negative employment effect using long lags in aggregate employment data. Neumark et al. (2014) used a synthetic control effect and found a negative employment effect. These authors used a typical synthetic control effect by comparing data between different counties in the same U.S. state.

Bailey et al. (2022) studied the large rise in the minimum wage due to the 1966 amendment to the Fair Labor Standards Act. They found that the amendment increased wages and reduced aggregate employment.

Giuliano (2013) and Hirsch et al. (2015) used payroll data and found that increases in the minimum wage resulted in wage effects, but did not result in significant decreases in employment. Finally, Manning recently reviewed some of the literature on the economic effect of changes to the minimum wage.

Manning concluded that: “A balanced view of the evidence makes it clear that existing evidence of a negative employment effect is not robust to reasonable variation in specification, even when the wage effect is robust. . . . one has to acknowledge that the impact of the minimum wage on employment is theoretically ambiguous” (Manning 2021).

Distortionary Taxation

Distortionary taxes are taxes that affect the prices of items in a market. Several authors have published papers concerning the effect of distortionary taxation on employment (See Greenwood and Huffman 1991, Baxter and King 1993, and McGrattan 1994).

“Harberger triangles” refers to the deadweight loss occurring in the trade of a good or service due to the market power of buyers, of sellers, or because of government intervention. The size of a deadweight loss is proportional to the size of the Harberger triangles. Greenwood and Huffman used 1948-1985 U.S. annual data and found that the Harberger triangles were associated with distortionary taxation. Major weaknesses of their analysis are (1) it did not account for the effect of the costs and benefits of government spending programs; (2) it measured government spending, not taxation; and (3) it incorrectly assumed that all government spending is funded by federal income taxes.

Baxter and King found that “output falls in response to higher government purchases when these are financed by general income taxes” (Baxter and King 1993, p. 333). McGrattan (1994) studied the effects of distortionary tax policies using a dynamic recursive stochastic equilibrium model. She estimated that the welfare costs of taxation were eighty-eight cents per dollar for capital taxes, and thirteen cents per dollar for labor taxes.
Economic Shocks

There have been a large number of papers concerning the effect of economic shocks on the labor market.\(^2\) Mortensen and Pissarides (1994) found that an aggregate shock induces negative correlations between job creation and job destruction, whereas a dispersion shock induces positive correlations. The job-destruction process is shown to have more volatile dynamics than the job-creation process. (Mortensen and Pissarides 1994) Their work implies that firms are risk averse.

Blanchard and Wolfers (2000) reviewed economic shocks in Europe since the 1960s and analyzed the relationship between economic shocks and institutions. They found that “the results so far suggest that an account of the evolution of unemployment based on the interaction of shocks and institutions can do a good job of fitting the evolution of European unemployment, both over time and across countries” (Blanchard and Wolfers 2000, p. C32).

Mian and Sufi (2012) studied the decline in U.S. employment from 2007-2009. They found that the decline in aggregate demand (consumption) was driven by shocks to household balance sheets. They estimated that 65% of the employment losses were caused by the decline in aggregate demand during this period.

Their results are consistent with the long-term correlation between personal consumption expenditures (PCE) and aggregate employment. This paper used quarterly data for the period 1948 Q1 to 2121 Q4 in the U.S. and found that PCE and Aggregate Employment had a correlation coefficient of 0.92.

Pappa (2009) studied the effect of fiscal shocks on employment and on the real wage using U.S. federal government and state government data. Pappa used Real Business Cycle (RBC) and New Keynesian models to evaluate the data. She found that aggregate increases in government employment raise both the real wage and total employment.

Pappa (2009) has acknowledged that “Our theoretical framework is too limited . . . since it allows for perfect labor mobility between private and public sectors, assumes that the government acts competitively in labor markets, and does not allow for equilibrium unemployment” (Pappa 2009, p. 241).

Baqaee and Farhi (2022) used four observations and studied the effect of COVID on GDP from February 2020 to May 2020. They argue that “policies that boost demand, like lowering interest rates or increasing government spending, exacerbate problems of inadequate supply, leading to shortages” (Baqaee and Farhi 2022, pp. 1397–1398).

Caldara and Matteo (2022) used the text from 25 million news articles to construct a Geopolitical Risk Index (GPR) and found that higher firm-level geopolitical risk is associated with lower firm-level investment.

International Trade and Employment

Nickell (1984) studied manufacturing employment in the United Kingdom (U.K.) for the period 1958-1974. Nickell hypothesized that manufacturing employment is a function of industrial output, investment in plant and machinery,

earnings, effective price of capital goods, output prices, real share prices, and M3 money supply.

Nickell’s work suffered from a lack of computing power, which limited the scope of his study. His study was also impacted by the substantial increase in energy prices in 1973 and 1974, when spot crude oil prices rose by over 200%. Crude oil prices were $3.56/barrel in December 1972 and rose to $11.16/barrel in December 1974 (Federal Reserve Bank of St. Louis 2022).

Enrique Mendoza studied the relationship between terms of trade shocks and business cycles using a dynamic stochastic model of a small open economy for the G-7 countries and 23 developing economies. He found that “terms-of-trade disturbances account for around 1/2 of the observed variability of GDP and real exchange rates” (Mendoza 1995).

There is substantial disagreement among economists about the effect of trade on manufacturing employment. Papers by Yang (2021) and Pierce and Schott (2016) are indicative of this disagreement. Yang (2021) used an instrumental variable approach and found that U.S. exports to different markets created more than 1.6 million manufacturing jobs between 1991 and 2007. Pierce and Schott (2016) found that the sharp drop in US manufacturing employment after 2000 was strongly affected by a change in U.S. trade policy that eliminated potential tariff increases on Chinese imports.

Acharya estimated the impact of imports on Canada’s level of employment, skill structure, and wages by level of education for the period 1992-2007. Acharya stated that “In particular, we decompose the effects of trade based on Canada’s three major trading partners (USA, China and Mexico) to determine whether increasing trade with emerging economies has significantly altered labour market outcomes. Our analysis uses newly constructed data that spans from 1992 to 2007 for 88 industries covering three sectors: primary, manufacturing and services” (Acharya 2017).

Acharya found that “Although there has been significant restructuring of employment both across the sectors and by skill, the evidence suggests that trade [imports] has played a relatively small role in altering labour demand. The effect on employment of import intensity is small, about 6,000 persons annually” (Acharya 2017).

Insider/Outsider Models

Romer (2019, p. 547) explains that:

One possible way of improving the ability of contracting models to explain key features of labor markets is to relax the assumption that the firm is dealing with a fixed pool of workers. In reality, there are two groups of potential workers. The first group [is] the insiders [who] are workers who have some connection with the firm at the time of the bargaining, and whose interests are therefore taken into account in the contract. The second group [is] the outsiders [who] are workers who have no initial connection with the firm but who may be hired after the contract is set.

Oswald (1993) and Gottfries (1992) argue that due to normal employment growth and turnover, the insiders are usually fully employed, and the only hiring
decision concerns how many outsiders to hire. Blanchard and Summers argue that
the insiders are reluctant to allow the hiring of large numbers of outsiders at a
lower wage, because they realize that such a policy would eventually result in the
outsiders controlling the bargaining process.

Blanchard and Summers (1986, pp. 35–36) find that employment follows a
random walk. They make two significant assumptions that are critical to their
findings: (1) expected changes in labor demand have no effect on the level of
employment; and (2) newly hired workers do not immediately become insiders.

Insider/outsider models constitute an argument against trade unions or other
forms of labor market segmentation that create groups of different status. The
models imply that the existence of trade unions results in suboptimal employment
because trade unions tend to restrict the number of outsiders hired by a unionized
firm.

Data Discrepancies

There are two general methods used by different countries to report
employment data: survey results and recorded data. The U.S. Bureau of Labor
Statistics (BLS) conducts a monthly survey (Current Employment Statistics) of
business establishments in the U.S. The BLS (2021) has explained that:

The Current Employment Statistics (CES) survey is based on a sample of 651,000
business establishments nationwide. The survey produces monthly estimates of
employment, hours, and earnings for the Nation, States, and major metropolitan
areas.

Because the BLS uses survey data, it does not consider administrative data
such as the number of people who receive unemployment benefits (Carey 2021). The
BLS use of survey data may cause the results to be biased, although the
amount of bias is probably small due to the large number of observations in their
study.

Methodology

There are six classical assumptions of Ordinary Least Squares (OLS). These
assumptions are (1) the regression model is linear; (2) the error term has a mean of
zero; (3) all independent variables are uncorrelated with the error term; (4)
observations of the error term are uncorrelated with each other (no serial
correlation); (5) the error term has a constant variance (no heteroskedasticity); and
(6) no independent variable is a perfect linear function of other explanatory
variables.

The methodology discussed below is consistent with the classical assumptions.
Input and Output Variables for OLS Regressions

Seasonally adjusted quarterly data was collected for all variables for the period 1948 Q1 to 2021 Q4. All data was obtained from the Federal Reserve Bank of St. Louis (2022) and from the Board of Governors of the Federal Reserve System (1976). The literature review was used to identify ten input variables. The output variable is Aggregate Employment. An additional proxy for expected demand (nonresidential fixed investment) was added to the preliminary list of input variables. Of the ten input variables suggested by the literature, two (Education and Unionization) are only available annually, and were removed from the preliminary list of input variables.

The variables may be downloaded from the site https://fred.stlouisfed.org/series/[Data Series]. A list of the variables and the data series is given in Table 1.

Table 1. Variables and Data Series

<table>
<thead>
<tr>
<th>Variable</th>
<th>Data Series</th>
<th>Description</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cpi</td>
<td>Cpiaucsl</td>
<td>Consumer Price Index, all urban consumers.</td>
<td>May 4, 2022</td>
</tr>
<tr>
<td>Emp</td>
<td>Payems</td>
<td>Thousands of Nonfarm Civilian Employees, Seasonally Adjusted.</td>
<td>May 4, 2022</td>
</tr>
<tr>
<td>Exports</td>
<td>Expgs</td>
<td>Exports of goods and service, billions of dollars, seasonally adjusted annual rate.</td>
<td>May 5, 2022</td>
</tr>
<tr>
<td>Fiscal</td>
<td>Fgexpnd</td>
<td>Federal Government: Current Expenditures, Billions of Dollars, Seasonally Adjusted Annual Rate</td>
<td>May 5, 2022</td>
</tr>
<tr>
<td>Gnp</td>
<td>Gnp</td>
<td>Gross National Product, billions of dollars, seasonally adjusted annual rate.</td>
<td>May 5, 2022</td>
</tr>
<tr>
<td>Imports</td>
<td>Impgs</td>
<td>Imports of Goods and Services, Billions of Dollars, Seasonally Adjusted Annual Rate</td>
<td>May 5, 2022</td>
</tr>
<tr>
<td>Me</td>
<td>Manemp</td>
<td>All Employees, Manufacturing, Thousands of Persons, Seasonally Adjusted.</td>
<td>May 8, 2022</td>
</tr>
<tr>
<td>Mep</td>
<td>Calculated</td>
<td>Manufacturing employees as a percentage of total nonfarm civilian employees.</td>
<td>May 9, 2022</td>
</tr>
<tr>
<td>Ms</td>
<td>MABMM301USM189S</td>
<td>M3 Money Stock, Billions of Dollars, Seaso</td>
<td>May 8, 2022</td>
</tr>
<tr>
<td>Mw</td>
<td>Minwfg</td>
<td>Federal Minimum Hourly Wage for nonfarm civilian workers in Dollars per Hour</td>
<td>May 8, 2022</td>
</tr>
<tr>
<td>Nfi</td>
<td>Pnfi</td>
<td>Private Nonresidential Fixed Investment, Billions of Dollars, Seasonally Adjusted Annual Rate.</td>
<td>May 8, 2022</td>
</tr>
<tr>
<td>Pce</td>
<td>Pce</td>
<td>Personal Consumption Expenditures, Billions of Dollars, Seasonally Adjusted Annual Rate</td>
<td>May 8, 2022</td>
</tr>
<tr>
<td>Pop</td>
<td>B230RC0Q173SBEA</td>
<td>Population in thousands</td>
<td>May 8, 2022</td>
</tr>
<tr>
<td>Taxes</td>
<td>W006RC1Q027SBEA</td>
<td>Federal Government, current tax receipts, Billions of Dollars, Seasonally Adjusted Annual Rate</td>
<td>May 8, 2022</td>
</tr>
<tr>
<td>Trade</td>
<td>expgs and impgs</td>
<td>Imports plus Exports, billions of dollars, seasonally adjusted annual rate.</td>
<td>May 5, 2022</td>
</tr>
</tbody>
</table>

The data was analyzed econometrically using Ordinary Least Squares (OLS). The initial OLS regression equation is:

\[
E = a + b_1C + b_2CPI + b_3F + b_4G + b_5IT + b_6M + b_7M + b_8M + b_9M + b_{10}NFI + b_{11}P + b_{12}T + e
\]
where:

- \( a \) is the constant term.
- \( C \) is Personal Consumption Expenditures.
- \( \text{CPI} \) is the Consumer Price Index.
- \( E \) is Aggregate Employment.
- \( F \) is Federal Expenditures.
- \( G \) is Nominal GNP.
- \( IT \) is International Trade.
- \( M \) is an MA(1) term.
- \( \text{MEP} \) is the percent of nonfarm civilian employees who work in Manufacturing.
- \( MS \) is M3 Money Stock.
- \( \text{MW} \) is the Federal Minimum Wage.
- \( \text{NFI} \) is Nonresidential Fixed Investment.
- \( P \) is Population.
- \( T \) is Federal Tax Receipts.
- \( b_1-b_{12} \) are the estimated coefficients.
- \( e \) is the error term.

**Econometric Analysis**

In the paper’s initial regression (using nominal values), several econometric problems were evident. These problems included:

1. Choice of the variables
2. The correct functional form
3. Serial correlation
4. Outliers
5. Non-stationarity of the variables

As mentioned previously, the variables were taken from the literature review. The rest of the econometric problems are discussed below.

**Functional Form**

The term functional form refers to the algebraic form of a relationship between a dependent variable and regressors. Different variables may use a different functional form, although that is a practice that this paper does not employ.

Six different models were run: a model using nominal values, a first difference model, a Delta model (single period percent change), a log model, a first difference model using log values (Dlog model), and a per capita model (e.g., consumption per capita). In the final OLS regression shown in Table 5, the author chose to use a Dlog model because all of the variables were stationary, there were no outliers, the residuals were not serially correlated, the independent variables were not highly correlated with each other, and there were no atheoretical results.
Serial Correlation
The Durbin-Watson (DW) statistic was used to measure serial correlation. A DW statistic less than 1.50 indicates positive serial correlation, and a DW statistic greater than 2.00 indicates negative serial correlation. The paper accounted for serial correlation by using Weighted Least Squares with the weight set to the inverse of the standard deviation.

Outliers
The paper defines an outlier as an observation which is greater than two standard deviations from the mean of the series. Traditionally, some statisticians have eliminated outliers from the data set. This was a controversial practice which does not work well when dealing with economic data. Outliers in an economic series are often caused by either recessions or high growth periods following a recession. Elimination of outliers is equivalent to saying that recessions do not exist and will never exist in the future. The author did not eliminate any observations from the data set. Instead, the paper used Weighted Least Squares (WLS) to minimize the effect of outliers.

Stationarity
The use of non-stationary data in a time series analysis is not consistent with the classical assumptions of OLS, and may result in biased coefficient estimates and an incorrect interpretation (p-values) of those estimates.

The initial and final OLS regressions satisfy both the classical assumptions and the assumption of stationary variables. The Augmented Dickey-Fuller test was run for the independent and dependent variables, and both the first difference and Dlog values of all of the variables except population were found to be stationary.

Risk Aversion
Over the period 1948 Q1 to 2021 Q4, the quarterly percentage change in GNP (growth rate) has ranged from -9.54% to 8.73%. The mean of the GNP series is 1.55% and the standard deviation is 1.35%. High growth periods are defined as periods where the growth rate is greater than two standard deviations above the mean (4.25%), and low growth periods as periods where the growth rate is less than two standard deviations below the mean (-1.15%). The quarters that meet these standards are given in Table 2.

Table 2. High-Growth and Low-Growth Quarters

<table>
<thead>
<tr>
<th>Quarter</th>
<th>GNP Growth Rate (%)</th>
<th>Employment Growth Rate (%)</th>
<th>Calculated Okun Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950 Q3</td>
<td>6.19%</td>
<td>3.01%</td>
<td>0.49</td>
</tr>
<tr>
<td>1951 Q1</td>
<td>4.97%</td>
<td>2.16%</td>
<td>0.43</td>
</tr>
<tr>
<td>1978 Q2</td>
<td>5.64%</td>
<td>1.74%</td>
<td>0.31</td>
</tr>
<tr>
<td>1980 Q4</td>
<td>4.26%</td>
<td>0.81%</td>
<td>0.19</td>
</tr>
<tr>
<td>2020 Q3</td>
<td>8.73%</td>
<td>2.89%</td>
<td>0.33</td>
</tr>
<tr>
<td>1949 Q1</td>
<td>-1.92%</td>
<td>-1.76%</td>
<td>0.92</td>
</tr>
<tr>
<td>1953 Q4</td>
<td>-1.32%</td>
<td>-1.32%</td>
<td>1.00</td>
</tr>
</tbody>
</table>
As mentioned previously, the coefficient of a 1% change in GNP with respect to the percent change in non-farm civilian employment was 0.50, which means that a 1% increase in nominal GNP should result in a 0.50% increase in total non-farm civilian employment. This is similar to the relationship predicted by Okun.

Table 2 shows that the calculated coefficient was lower in all of the high-growth quarters than predicted by Okun, and was higher in all of the low-growth quarters than predicted by Okun. This implies that firms are risk averse, and are more likely to reduce employment in times of negative economic growth than they are to increase employment in high-growth periods.

As a matter of public policy, this result means that government should be extremely concerned with preventing recessions, because employment losses are immediate during recessions, and employment often recovers slowly once a recession ends.

For example, total non-farm employment has not yet recovered from the Covid-related decline in employment in 2020 Q1 and 2020 Q2. Total non-farm employment fell from 151.789 million in 2019 Q4 to 137.66 million in 2020 Q2. Total non-farm employment was only 150.886 million in 2022 Q1, a loss of 903,000 jobs since 2019 Q4.

**Results**

**OLS Results**

A first difference model with a moving average term (MA1) was used to estimate the values of the coefficients. The moving average term was used to control the effect of serial correlation. The initial regression statistics are given in Table 3, and the initial model results are given in Table 4 below for the period 1948 Q1 to 2021 Q4. A probability of 0.05 indicates that you are 95% confident that the true coefficient of the variable is not zero.

A probability of 0 indicates that you are at least 99% confident that the true coefficient is not 0. Consistent with standard econometric practice, the paper assumes that the true coefficient is 0 if the estimated probability is greater than 0.05.

**Table 3. Initial Regression Statistics**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Squared</td>
<td>0.889</td>
</tr>
<tr>
<td>Probability of the F statistic</td>
<td>0.000</td>
</tr>
<tr>
<td>Durbin-Watson statistic</td>
<td>1.825</td>
</tr>
</tbody>
</table>
The initial regression statistics indicate that the model captures almost 89% of the variance of the dependent variable; that the overall regression is highly significant; and that the model results are not biased due to the presence of serial correlation.

**Table 4. Initial OLS Model Results**

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Coefficient</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant term</td>
<td>-957.54</td>
<td>0.000</td>
</tr>
<tr>
<td>Consumer Price Index (CPI)</td>
<td>-54.73</td>
<td>0.011</td>
</tr>
<tr>
<td>Federal Expenditures (FE)</td>
<td>-0.21</td>
<td>0.000</td>
</tr>
<tr>
<td>Gross National Product (GNP)</td>
<td>0.81</td>
<td>0.064</td>
</tr>
<tr>
<td>Manufacturing Employment Percentage (MEP)</td>
<td>1,211.68</td>
<td>0.000</td>
</tr>
<tr>
<td>Minimum Wage (MW)</td>
<td>-194.33</td>
<td>0.270</td>
</tr>
<tr>
<td>Money Supply (MS)</td>
<td>-2.88</td>
<td>0.000</td>
</tr>
<tr>
<td>Moving Average Term (MA1)</td>
<td>0.39</td>
<td>0.000</td>
</tr>
<tr>
<td>Nonresidential Fixed Investment (NFI)</td>
<td>9.24</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Consumption Expenditures (PCE)</td>
<td>2.69</td>
<td>0.000</td>
</tr>
<tr>
<td>Population (POP)</td>
<td>-0.85</td>
<td>0.001</td>
</tr>
<tr>
<td>Federal Tax Revenues (Taxes)</td>
<td>0.14</td>
<td>0.784</td>
</tr>
<tr>
<td>International Trade (Trade)</td>
<td>-0.77</td>
<td>0.113</td>
</tr>
</tbody>
</table>

The model results indicate that four of the variables (GNP, MW, Taxes, and Trade) do not have a significant effect on employment given the presence of other variables in the regression. Personal Consumption is a subset of GNP; tax revenues increase or decrease when consumption increases or decreases; and trade is highly correlated (0.85) with consumption. The fact that changes in MW are not significant is consistent with the research of Manning A. (2021). The POP series is non-stationary, and its inclusion would result in biased coefficient estimates. Therefore, GNP, MW, POP, Taxes, and Trade have been removed from the final OLS model, as shown in Table 6.

**Table 5. Regression Statistics for the Final OLS Model**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Squared</td>
<td>0.879</td>
</tr>
<tr>
<td>Probability of the F statistic</td>
<td>0.000</td>
</tr>
<tr>
<td>Durbin-Watson statistic</td>
<td>1.804</td>
</tr>
</tbody>
</table>

The regression statistics for the final OLS model indicate that the model captures almost 88% of the variance of the dependent variable; that the overall regression is highly significant; and that the model results are not biased due to the presence of serial correlation.
Table 6. Final OLS Model Results

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Coefficient</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant term</td>
<td>393.516</td>
<td>0.000</td>
</tr>
<tr>
<td>Consumer Price Index (CPI)</td>
<td>-57.44</td>
<td>0.008</td>
</tr>
<tr>
<td>Federal Expenditures (FE)</td>
<td>-0.22</td>
<td>0.000</td>
</tr>
<tr>
<td>Manufacturing Employment Percentage (MEP)</td>
<td>1,176.06</td>
<td>0.000</td>
</tr>
<tr>
<td>Money Supply (MS)</td>
<td>2.48</td>
<td>0.000</td>
</tr>
<tr>
<td>Moving Average Term (MA1)</td>
<td>0.45</td>
<td>0.000</td>
</tr>
<tr>
<td>Nonresidential Fixed Investment (NFI)</td>
<td>8.83</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Consumption Expenditures (PCE)</td>
<td>3.59</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The model results indicate that all of the variables have a significant effect on employment given the presence of other variables in the regression. The mean of the MEP series is -0.08. Thus, a positive coefficient for MEP indicates that MEP has a negative effect on employment. Inflation (CPI), MEP, and Federal Expenditures (FE) have a negative effect on employment, as predicted by supply-side economists.

Table 7 provides an estimate of the change in nonfarm civilian employment assuming a 1% change in an independent variable. It does not account for the interactivity between the independent variables. For example, an increase in inflation (CPI) may cause a decrease in consumption (PCE), which in turn may cause a loss of jobs in a future period. This interactivity is best captured by a Vector Auto Regression (VAR) model.

The elasticities were estimated in the same way in which Capital Asset Pricing Model betas are calculated. The elasticity formula is $E = a + b_1PV + e$, where $E$ is the percent change in employment, $a$ is the constant term, $b_1$ is the estimated coefficient, $PV$ is the percent change in the independent variable, and $e$ is the error term.

Table 7. Estimated Elasticity of the Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Elasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Price Index (CPI)</td>
<td>-0.20</td>
</tr>
<tr>
<td>Federal Expenditures (FE)</td>
<td>-0.08</td>
</tr>
<tr>
<td>Manufacturing Employment Percentage (MEP)</td>
<td>0.39</td>
</tr>
<tr>
<td>Money Supply (MS)</td>
<td>-0.22</td>
</tr>
<tr>
<td>Nonresidential Fixed Investment (NFI)</td>
<td>0.21</td>
</tr>
<tr>
<td>Personal Consumption Expenditures (PCE)</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Expected demand is measured by PCE and NFI. Firms experience PCE on a daily basis and make investment decisions based on expected changes in customer demand for their products and services. Their investment decisions are measured by NFI, which leads to changes in employment at their firm. For example, a company might notice that demand is increasing for their goods and services. They respond by purchasing additional equipment or opening new offices, which necessitates the hiring of additional workers.
Outliers

In traditional statistical theory, a researcher may eliminate observations more than a specified deviation from the mean. Chauvenet’s Criterion is often used to determine the number of standard deviations that constitute an outlier. Because the employment series contains quarters in which employment declined as a result of recessions, the data set contains outliers as calculated using Chauvenet’s Criterion. A researcher should not eliminate these observations, because doing so would imply that there is zero probability that a recession will occur. Weighted Least Squares (WLS) can be used to transform the data set into a data set without outliers. Therefore, WLS results have been provided below.

The WLS equation is: \[ E = a + b_1C + b_2CPI + b_3F + b_4MEP + b_5MS + b_6NFI + e \]

where:
- \( a \) is the constant term.
- \( C \) is Personal Consumption Expenditures.
- \( CPI \) is the Consumer Price Index.
- \( E \) is Aggregate Employment.
- \( F \) is Federal Expenditures.
- \( MEP \) is the percent of non-farm employees who work in Manufacturing.
- \( MS \) is M3 Money Stock.
- \( NFI \) is Nonresidential Fixed Investment.
- \( b_1-b_6 \) are the estimated coefficients.
- \( e \) is the error term.

Because it is not possible both to account for heteroskedasticity with a covariance matrix and to use a moving average term in a WLS regression, the WLS regression was run by using the inverse of the standard deviation as the weight, eliminating the moving average term, and accounting for heteroskedasticity by using a Huber-White covariance matrix.

WLS Results

The WLS results are given in Tables 8 and 9.

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Squared</td>
<td>0.850</td>
</tr>
<tr>
<td>Probability of the F statistic</td>
<td>0.000</td>
</tr>
<tr>
<td>Durbin-Watson statistic</td>
<td>1.049</td>
</tr>
</tbody>
</table>

The regression statistics indicate that the model captures over 85% of the variance of the dependent variable, that the overall regression is highly significant, and that the model results are biased due to the presence of serial correlation.
The model results indicate that four of the variables have a significant effect on employment given the presence of other variables in the regression. The mean of the MEP series is -0.08. Thus, a positive coefficient for MEP indicates that MEP has a negative effect on employment. Inflation (CPI) and Federal Expenditures (FE) do not have a significant effect on employment.

There are two major differences between the OLS results given in Table 6 and the WLS FD results. These differences are that the CPI and FE coefficients are not significant in the WLS FD regression; and that MS has a negative coefficient in the WLS regression. These differences are caused by the presence of serial correlation in the WLS FD regression.

**First Differences of the Log Values**

The paper took logs of the variables shown in Table 6 and then calculated the first differences of those log values. Next, WLS was used to estimate the coefficient values. The paper refers to this model as the DLog model. The WLS Regression statistics are shown in Table 10 below.

**Table 9. WLS First Difference (FD) Model Results**

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Coefficient</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant term</td>
<td>411.88</td>
<td>0.000</td>
</tr>
<tr>
<td>Consumer Price Index (CPI)</td>
<td>-34.28</td>
<td>0.310</td>
</tr>
<tr>
<td>Federal Expenditures (FE)</td>
<td>-0.43</td>
<td>0.284</td>
</tr>
<tr>
<td>Manufacturing Employment Percentage (MEP)</td>
<td>1,469.30</td>
<td>0.000</td>
</tr>
<tr>
<td>Money Supply (MS)</td>
<td>-2.25</td>
<td>0.000</td>
</tr>
<tr>
<td>Nonresidential Fixed Investment (NFI)</td>
<td>8.93</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Consumption Expenditures (PCE)</td>
<td>3.05</td>
<td>0.001</td>
</tr>
</tbody>
</table>

The MA(1) term was removed because it was unnecessary to control serial correlation, and a Huber-White covariance matrix was used to account for heteroskedasticity. The regression statistics indicate that the model captures over 75% of the variance of the dependent variable, that the overall regression is highly significant, and that the model results are not biased due to the presence of serial correlation. The WLS DLog model results are given in Table 11.
Table 11. Final WLS Model Results Using the First Difference of the Log Values

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Coefficient</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant term</td>
<td>0.002</td>
<td>0.017</td>
</tr>
<tr>
<td>Consumer Price Index (CPI)</td>
<td>-0.049</td>
<td>0.296</td>
</tr>
<tr>
<td>Federal Expenditures (FE)</td>
<td>-0.041</td>
<td>0.011</td>
</tr>
<tr>
<td>Manufacturing Employment Percentage (MEP)</td>
<td>0.371</td>
<td>0.000</td>
</tr>
<tr>
<td>Money Supply (MS)</td>
<td>-0.114</td>
<td>0.028</td>
</tr>
<tr>
<td>Nonresidential Fixed Investment (NFI)</td>
<td>0.056</td>
<td>0.013</td>
</tr>
<tr>
<td>Personal Consumption Expenditures (PCE)</td>
<td>0.353</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The model results indicate that, given the presence of other variables in the regression, all of the variables except CPI have a significant effect on employment. The mean of the MEP series is -0.005. Thus, a positive coefficient for MEP indicates that MEP has a negative effect on employment. MEP, MS, and Federal Expenditures (FE) have a negative effect on employment, as predicted by supply-side economists.

Discussion

Of the six models performed, the DLog model had the lowest R-Squared, which may indicate that the DLog model may be the least accurate model. Additionally, the DLog model results are difficult to explain, and may not adequately represent how employment decisions are made in the real world. The paper questions whether business owners consider the difference in logs when making employment decisions. Some of these questions may be answered when sales forecast models are reviewed.

The DLog model seems to be more consistent with established theory. For example, the FD model indicates that federal expenditures do not have a significant effect on employment. This atheoretical result is probably caused by the effect of serial correlation in the FD model. Another advantage of the DLog model is that unlike the FD model, the DLog model is not biased due to the effect of serial correlation.

As mentioned previously, expected demand was measured by two variables: personal consumption expenditures (PCE) and private non-residential fixed investment (NFI). All of the model results indicate that both of the expected demand variables have a significant effect on aggregate employment. As shown in Table 6, a 1% change in NFI will cause a 0.21% change in employment and a 1% change in PCE will cause a 0.47% change in employment.

In 2021 Q4, 149 million persons were employed in the non-farm portion of the labor market. Thus, a 1% change in NFI will lead to the creation of 312,000 jobs, and a 1% change in PCE will lead to the creation of 700,000 jobs.
Future Work

As mentioned previously, this paper presents interim results of the author’s PhD dissertation. The final dissertation will include a mathematical proof of my hypothesis, as well as reviews of the literature on sales forecasts, of the work of Keynes, and of expectations theory. Additionally, the following econometric procedures will be employed.

1. Regressions will be performed using one of the ARCH (Auto Regressive Conditional Heteroskedasticity) family models. Several model choices will be considered. These include ARCH, GARCH/TARCH, EGARCH, PARCH, Component ARCH, FIGARCH, and FIEGARCH.
2. A Vector Auto Regression (VAR) model will be performed using two lags per variable. All variables will be treated as endogenous, and the constant term will be treated as exogenous.
3. A cointegration test will be used to determine whether two or more variables are cointegrated.
4. A Bayesian VAR model will be performed.
5. The reliability of the VAR results will be analyzed by running Granger Causality tests on the variables. The dissertation will use the methods described by Eviews to perform the tests (QMS 2021). These methods are given at http://www.eviews.com/help/helpintro.html#page/content%2Fcommandcmd-cause.html.
6. The final dissertation will compare and contrast all of the econometric results and discuss the strengths and weaknesses of each econometric method.

This paper analyzes the effect of expected demand on aggregate employment. Other researchers may be interested in writing papers to address the effect of expected demand on labor supply and wages.

Conclusion

The paper analyzed the effect of important macroeconomic variables on aggregate employment. The paper hypothesized that firms increase and decrease employment in response to changes in expected demand as measured by personal consumption expenditures and nonresidential fixed investment.

The paper found that the six variables listed in Table 6 have a significant effect on employment in the OLS regression using first-difference data. The strongest effect on employment results from the two expected demand variables: personal consumption expenditures, and nonresidential fixed investment.

The paper takes the work of Lucas and Muth on expectations theory and applies it to an analysis of the labor market. The author investigates the causes of changes in aggregate employment in the U.S.; to find whether theories exist that
explain such changes; and to attempt to develop a new approach that will accurately analyze and explain changes in U.S. aggregate employment.

The paper focuses on aggregate employment rather than on the unemployment rate because of the problem of labor-force dropouts affecting the calculation of the unemployment rate. The unemployment rate is calculated by dividing the number of unemployed by the number of labor-force participants. An individual is not considered to be a member of the labor force unless either employed, or unemployed and actively seeking employment. When a recession occurs, some people tend to stop looking for work and thus are not counted in the official U.S. unemployment rate.

Subsections Historical Economic Theory, Rational Expectations & Growth Models of the Literature Review were used to identify specific variables that some labor economists believe have a significant impact on employment. Based on the literature review, the following variables were used in the paper’s regression analysis: consumer price index, total nonfarm civilian employment, gross national product (GNP), percent of manufacturing employees, M3 money stock, federal minimum wage, nonresidential fixed investment, personal consumption expenditures, federal tax receipts, and trade (imports plus exports).

The literature review identifies one major research gap concerning studies of aggregate employment in the U.S.: the shortage of papers on the effect of expected demand on aggregate employment. Additionally, at the time of this writing, papers on aggregate employment have not been updated to account for the economic effects of COVID-19, which began in 2019. The major research gap in the literature is the shortage of papers on expected demand and aggregate employment. The paper addresses these research gaps by submitting a paper on expected demand and aggregate employment and by using data for the period 1948 Q1 to 2021 Q4, thereby accounting for the economic effect of COVID-19.

Acknowledgments

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### Preliminary Econometric Regression Output

**Table 12. The Effect of GNP on Non-Farm Employment in the United States**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.003560</td>
<td>0.000451</td>
<td>-7.899605</td>
<td>0.0000</td>
</tr>
<tr>
<td>@PCH(GNP)</td>
<td>0.496408</td>
<td>0.010174</td>
<td>48.79107</td>
<td>0.0000</td>
</tr>
<tr>
<td>MA(1)</td>
<td>0.243459</td>
<td>0.063725</td>
<td>3.820451</td>
<td>0.0002</td>
</tr>
<tr>
<td>SIGMASQ</td>
<td>2.49E-05</td>
<td>1.38E-06</td>
<td>18.00946</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.666552</td>
<td>Mean dependent var</td>
<td>0.004134</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.663114</td>
<td>S.D. dependent var</td>
<td>0.008652</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.005022</td>
<td>Akaike info criterion</td>
<td>-7.736295</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>0.007339</td>
<td>Schwarz criterion</td>
<td>-7.686303</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>1145.104</td>
<td>Hannan-Quinn criter.</td>
<td>-7.716277</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>193.8997</td>
<td>Durbin-Watson stat</td>
<td>1.898162</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inverted MA Roots  
-0.24