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# AMERICAN REGIME INSTITUTIONALIZATION, SEGREGATION, INTEGRATION AND ASSIMILATION: THE SOCIAL IDENTITY DYNAMICS OF UTILITARIAN COOPTATION

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## ABSTRACT

*The study highlights how authoritarian populist leaders manipulate the anti-Semitic and other stereotypes in scapegoating to overcome intra-core group polarization and mobilize political support. Alignment by two heretofore adversaries against a common third target as a perceived source of shared threat can generate a positive “ally” stereotype in shared mutual perception among the other former adversaries. Part of the anti-Semitic stereotype is the conspiratorial component, i.e., the advanced minority has higher socio-economic status because of ingroup hidden manipulation of significant components of the polity. Despised lower status ethnic ingroups, stereotyped as backward and childlike by the core, are prone to be perceived as being instruments for manipulation by the envied higher status outgroup. This analysis thus shows how the Holocaust was an essential element of the wartime German regime. It mobilized societal resources around scapegoating which was part of the normative active and coercive and utilitarian control mechanisms characterizing Nazi political control. Authoritarian populist regime enthusiasts can join the coercive apparatus to gain esteem and material benefits. Normative active control utilizing racist xenophobia was a means by which to generate support internally. Inferences from Great Power mid-twentieth century authoritarian populism are applied to the analysis of the US Trump phenomenon.*

**JEL:** H12, H56, H63, I38, K38, N11, N51, O15, O51, P11, P16

**KEYWORDS:** Achievement, Ascription, Nationalism, Political Regime, Social Identity, Social Competition, Social Creativity, Social Mobility

*“History Doesn’t Repeat Itself, but It Often Rhymes” – Mark Twain*

## INTRODUCTION

**A**s with any nation state, the American nation state may be metaphorically compared to a geologic manifestation, e.g., an island, which has its own core process dynamics. The outcomes of these core processes interact with the external environment, generating a surface layer outcome upon them. These dynamic interactive processes continue, punctuated by moments of upheaval amidst relative stability. They add layer upon layer, which the observer can examine by delving deep beneath the surface by taking a core sample to its foundation. By applying ontological frameworks to explain the existence and development of what is identified as a particular island, so may the twenty-first century American nation state be analogously explained in terms of its functioning and development. American state institutions have evolved from its colonial settler foundation. European early-modern colonial settler transatlantic commodity trade and exploitation of resources remains the foundation upon which the American nation state then evolved. This historical basis is critical for explaining what exists and functions as evident in behavior today after five centuries of societal evolution on this footing. This analytical approach typifies the methodological perspective of process tracing (Ricks and Liu, 2018, Collier, 2011, Kittel and Kuehn,

2013, Hall, 2013). In a deductive process tracing approach, the analyst applies a theoretical framework to explain the causal mechanism producing a particular case (Runhardt, 2021). “Evidence that testifies that the sequence so identified is a causal mechanism needs to come from elsewhere, and in particular, from fully-fledged social theories” (Ruzzene, 2014, 365).

This study applies the political psychological theorization of nationalism in Cottam and Cottam (2001) to proffer causal sequence relationships in its process tracing. It outlines the collective value and attitudinal trend dynamics in the development of the American polity that produced the Trump phenomenon, i.e., the ascendance of white populist reactionary nationalism. The Trump administration displayed behavioral tendencies suggesting a collective emphasis upon mobilizatory populist conservative reactionary public political participation. Concurrent with it was a noted predisposition to demonize “out groups” [*sic*] as sources of threat undermining traditional American values that allegedly made America “great” in the past (Fording and Schram, 2017, 670). These minorities had made inroads in reducing their political, social and economic marginalization significantly through the social justice movements that peaked in the postwar era (King, 2017). Their gains emerged concomitantly with the increasing globalization of the American political economy contributing to minority population demographic proportion growth. Globalizing trade, investment and finance flows reduced relative monetary income receipts for less skilled and less formally educated sectors of white society. These conditions primed their receptivity to scapegoat portrayals of the growing minority Other (Narayan, 2017).

The Nazi German control system is a European case approximating the Weberian ideal-typical model of an authoritarian populist political regime. Cottam and Cottam (2001) define fascism as a political regime type, not as an ideology. They identify the defining characteristics of the phenomenon of fascism. Its essence is the agency of state terror and a demagogic manipulation of symbols as the means by which an aspiring elite establish and maintain totalitarian control over a society. Fascism offered, 1) an appeal to traditional values, 2) glorification of the group as a nation, 3) opportunity for individual success with its basis in merit rather than in social status (Hamilton, 1971, xxi, cited in Cottam and Cottam, 2001, 135). This conceptualization of fascism, rather than as a doctrine, focuses on collective behavior patterns. Characterizing a fascist regime is an aspiring elite seeking to establish totalitarian control which agencies of state terror exercise together with a demagogic manipulation of symbols.

Cottam and Cottam (2001) argue that in 1939, among Nazi Germany, Fascist Italy and Imperial Japan, Imperial Japan most closely approximated this Weberian ideal-type definition. Even here, Japan diverged insofar as the aspiring elite in Japan was the Japanese military, and it was a core element in the ruling elite. It was an institution which had solidly established itself, having deep cultural roots, rather than being a vanguard of a counter-elite. Elite alteration away from the traditional aristocratic ruling class was underway, to be sure, but nothing comparable occurred to the elite replacement which occurred in Germany and Italy. Still, the level of control which this military elite exercised was totalitarian, and the primary means of elite control was state terror along with a demagogic manipulation of romantic symbols. But even here a difference was evident; strikingly less obtrusive was the Japanese internal propaganda effort in comparison to Germany and Italy.

Evaluating the Trump phenomenon according to the criterion of an aspiring elite leading it implies of course challenging the establishment elite. Trump’s core enthusiasts’ focus on so-called culture war issues reflected hostility to this establishment elite, as did their rejection of anthropogenic climate change as a scientific fact. “Framing the discussion in terms of reliable facts, however, can miss how movements that promote distrust in science often put emphasis on *cognitive authority*. After all, a defense of established expertise is also a conservative act, shoring up the power of existing institutions and recognized authorities” [*sic*] (Edis, 2020, 6). White self-described evangelical voters were at the core of Trump’s support. “The blend of cultural references, and the people who brought them [to the January 6, 2021 Washington, DC insurrection], made clear a phenomenon that has been brewing for years now: that the most extreme corners

of support for Mr. Trump have become inextricable from some parts of white evangelical power in America. Rather than completely separate strands of support, these groups have become increasingly blended together” (Dias and Graham, 2021, para. 5).

Elite elements in this proto-fascist movement occupied senior positions in the G.W. Bush administration. As in the Japanese case, the white Christian nationalist elite has long been part of the postwar American establishment (Hummel, 2016). This aspiring elite harnessed American white evangelical antipathy towards Barak Obama and Hillary Clinton to propel the Trump campaign. “While evangelical Republicans' levels of religiosity or faith are relatively uncorrelated with evaluations of Trump in 2016 and Romney in 2012, there is a strong negative correlation with Clinton and Obama evaluations” (Margolis, 2020, 91). Their leaders in turn disregarded Trump’s historical lack of evident religiosity to utilize him to gain preeminence over the governing institutions of the American state. “Borrowing Max Weber’s framework, white Evangelicals have turned away from the charismatic authority of the Church in favor of the rational-legal authority of the state” (Martí, 2019, 5). They emphasized influence on judicial appointments. They sought and gained this control to “fight against forces they view as tainting the purity of American identity, forces that include immigration, nontraditional gender roles, and same-sex marriage” (Ibid., 4-5).

Proto-fascist tendencies towards exploitation of terror as a governmental control mechanism displayed themselves almost immediately. The Trump administration ramped up family separations as well as deportations of undocumented residents. Of the 13.7% of the foreign-born US population in 2018, almost one-quarter were “unauthorized” (“Facts on US Immigrants,” 2018). They are mostly Hispanic, the largest ethno-racial minority in the US at 18% of the population. This nascent terror was by its nature a family affair; a majority of unauthorized US residents share households with authorized family member residents (Passel and Cohn, 2018). Their symbolic scapegoating was evident in the “visual cruelty” of Trump’s expansion of the border wall (Schuessler, 2021, para. 15). Women also became targets of incipient terror. Legal efforts intensified to grant American civil rights protection status to the embryo at the point conception under the “fetal personhood” campaign (Gersen, 2019). Successful efforts would effectively move towards not only abortion, but any impregnated female behavior deemed as unacceptably reckless for the wellbeing of the fetus becoming a punishable crime (“How a Stillbirth Becomes a Crime,” 2018). Nearly one-quarter of American women have undergone at least one abortion (Guttmacher Institute, 2017).

Hitlerian Germany allocated significant resources to the Holocaust when those resources could have been devoted to the military and military support efforts in its life and death struggle to avoid conquest. The question emerges as to why. The answer is that the Holocaust was the manifestation of the essence of the regime. Specifically, it mobilized societal resources around scapegoating as part of the normative active and coercive and utilitarian control mechanisms characterizing the Nazi regime (Cottam and Gallucci, 1978). Coercion was obvious; it was part of the terror generation mechanism. On this primary foundation, it employed utilitarian control in that Nazi regime enthusiasts could join the coercive apparatus to gain esteem and material benefits amidst tremendous societal change. These benefits became limited under wartime material sacrifices. Normative active symbolic appeals of romanticized self-versus-other including racist xenophobia was a means by which to generate support among Germans. It also appealed among some Europeans in occupied German-occupied Europe. It generated opportunities for individual social mobility and social creativity, i.e., intergroup social integration. Heretofore hostile groups could more readily psycho-socially integrate by allying against the mythologized, conspiratorial scapegoat, the Jewish-Capitalist-Bolshevik-Masonic global conspiracy.

Nationalism associates with stereotyping and affect. Mobilizing around a charismatic leader to enforce a secular mythology, i.e., a “Big Lie,” is part of this intense ingroup mobilization vis-à-vis outgroups (Adams, 2019, 238). German Nazi propagandist Josef Goebbels exploited this tendency, with the mythology of the global conspiracy among international Jewry being a core component (King, 2018). Hence, the Holocaust, despite the diversion of resources it required that could have been used for warfighting, was critical for the

German Nazi wartime regime. These social identity integrative dynamics occurred within the larger context of Nazi German social competition with its battlefield enemies. The latter, e.g., the American and Soviet regimes, displayed essentially different types of political regimes/control systems (Cottam and Gallucci, 1978). The Trumpian Big Lie was the stolen election involving a cosmological conspiratorial mythology of globalists, universal human rights advocates and communities of color and liberal Jews in league with corrupt white politicians. The QAnon phenomenon is another manifestation of demonizing, right-wing authoritarian populist “apocalyptic crisis discourses” (Rensmann, 2017, 125).

Cottam and Cottam (2001) note that the basis for strong negative attitudes towards nationalism derives from this close association of fascism, i.e., authoritarian populism, and nationalism. If nationalist symbols were not available, then the ability of an elite seeking to maintain totalitarian control in part through manipulation of nationalist, stereotypical symbols would in fact be unlikely. In addition, an insistence on the exercise of greater influence in the world arena and an aggressive advancement of national grandeur interests are most likely to occur in association with fascism. Yet, an association of nationalism with liberal humanitarianism is a far more frequent occurrence, and the outcome of the action is far more acceptable.

The next section presents a selected literature review explicating the abstract conceptualization of nationalism in relation to minorities within a national polity and regarding the political control regime. It highlights the variable vulnerability of minorities to scapegoating as a mechanism for an authoritarian populist elite to maintain its control in a nation state. The following section then specifies the application to the United States of America case that gave rise to the Trump phenomenon. The “Data and Methodology” section analyzes a theory-informed selection of Trump administration policies. It critically explains them within the more general theoretical context of authoritarian populism. It highlights the American case-specific dynamics through a qualitative, process tracing methodological approach. The “Results and Discussion” section highlights the behavioral patterns of the Trump administration that the Covid-19 global pandemic triggered. It highlights the tendencies towards systemic marginalization of transnational scientific evidence. It illustrates the collective cognitive response of authoritarian populists to the intensifying salience of ineluctable global interdependency which the Covid-19 global pandemic has magnified. The following section outlines the requirements for political strategy to respond to promote human rights protection of the marginalized without provoking authoritarian populist backlash. The conclusion highlights the importance of this approach to seek to avoid a conflict spiral between the US and China.

## LITERATURE REVIEW

### Minorities and Nationalism

Europe was the region furthest advanced in the globally inexorable process of increasing popular political awareness to encompass broader comprehension of extended communities of shared fate (Cottam and Cottam, 2001). It was a concomitant of the evident acceleration of societal change mobilizing its members to seek societal status enhancement. This dignity status would favor allocation through achievement while questioning the traditional status quo that ascribed individual societal status at birth. The rise of ambition-driven modernity among the mass public both reflected and accelerated the emergence of the modern economy. It contributed to Europe’s temporary power advantage over the rest of the world, allowing Europe to politically colonize and partition much of the planet. European contact accelerated these same ineluctable value trends among the indigenous colonized population. It hastened the rise of nationalist self-determination social movements in what are today labelled post-colonial “developing” countries (Fukurai, 2019, 210). European nation state power advantages dissipated as the twentieth century dissolution of European empires illustrated, often accompanied by violence exacerbated by external intervention, e.g., Southeast Asia. The US defeat in the Vietnam War illustrated the power of nationalism in the form of pan-Vietnamese unification and national self-determination.

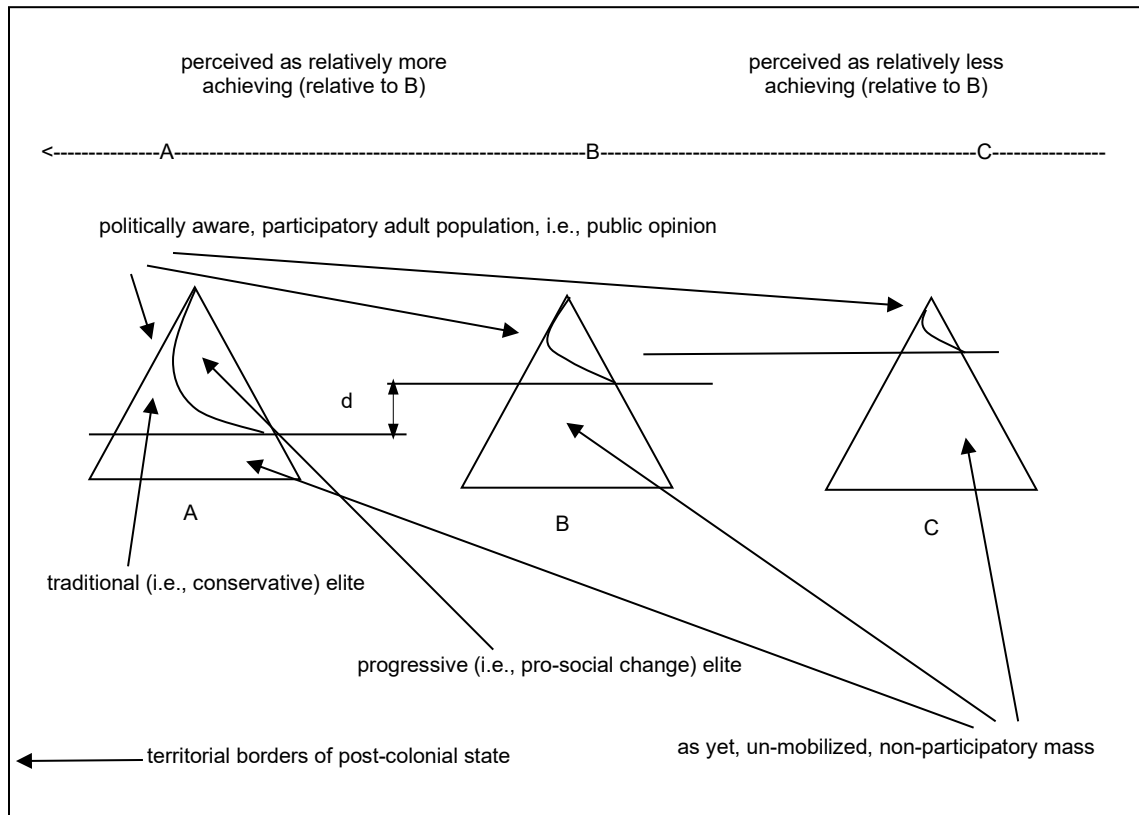
The legacy of European imperialism includes often arbitrary imperial possession borders partitioning Africa, Asia and Latin America into what became legally sovereign, post-colonial states (DeDominicis, 2016). The rise of popular political awareness concomitantly included broader community-of-fate ingroup individual self-identification. These “imagined communities” corresponded with perceived ethnic, racial and sectarian shared fundamental ingroup similarities (Anderson, 1983). These ethnic, racial and sectarian identities were often typically more intense and salient to individual citizens. They often lacked boundary congruence with the territorial community encompassed by the post-colonial, internationally recognized state borders.

The perceived benefits conferring from command of the post-colonial state apparatus often set the stage for social competition within these multi-ethnic states among these ethnic groups. Refugees fleeing violent conflicts perceived as zero-sum social competition for control of the post-colonial state constitute much of the global diaspora populations. External actors exacerbated these conflicts by responding positively to local solicitations for political aid to defeat the local adversary. Inter-state conflict continues in the nuclear setting of near total popular political awareness. Imperial intervention typically takes the consequent form of competitive state actors allying respectively with one or more discontented local groups in a third state. They respectively support a local client against the local allies of the other state competitor (Cottam, 1967, Cottam and Cottam, 2001, DeDominicis, 2019). Competition for influence over the post-colonial state is thus indirect to avoid intentionally escalating to direct military conflict between the state power competitors, which is potentially suicidal in the nuclear era.

Differential rates of political mobilization among different cultural groups contribute to the generation of self-versus-other ingroup stereotype identities subject to comparative status evaluation. A negative self-evaluation of ingroup relative status vis-à-vis a cohabiting ethnic outgroup results in psycho-social identity management strategies (Cottam and Cottam, 2001). They are categorized here as social mobility, i.e., if desirable and boundaries are permeable, individually assimilate into the perceived superior outgroup. Another is social creativity, i.e., change the comparative evaluation criteria to produce a compensatory, positive self-evaluation. The third is social competition, which is engage in zero-sum collective action against the outgroup, e.g., compete for control of the state, or secede and create a separate, sovereign state that is legally equal in status. Of course, tremendous violence frequently accompanies the latter with concurrent self-reinforcing intensification of stereotyping and affect, leading even to genocidal attacks.

In Figure 1, the state has a core national culture, one more relatively prosperous ethnic minority and one more relatively poorer. “A” represents a minority community: high-achieving, as perceived, in comparison with the core community, “B;” “C” represents a minority community: under-achieving, as perceived, in comparison with the core community, “B;” “B” represents the core community, i.e., the comparison group, setting the standards for cultural-behavioral evaluation, hegemonic within the state. It typically constitutes a majority of the population, although not necessarily so, e.g., the Boer minority was the core group in apartheid-era South Africa. The differential community rates of political awareness mobilization constitute the perceived ethnic cultural distance, “d,” as perceived among the three groups. The greater the perceived cultural distance, the greater the obstacles to assimilation into the core group, “B.” “d” varies because of communities’ respective differential rates of popular political awareness, saliency and intensity of autonomous participation within economic, social and political change processes. In Europe, due to historical political and sociological conditions, Jewish minorities have been disproportionately engaged in financial and trade activities. They tend to occupy the “A” position, as do Armenians in the Middle East, Chinese in Southeast Asia, South Asians in East Africa, and the case list continues. Historically marginalized groups are generally closer to the “C” category, including legacy diasporas of colonialization and enslavement, e.g., African American, Romani and Indigenous groups.

Figure 1: Perceived Cultural Distance and Stereotyping Between Ethnic Groups in a So-Called Developing Country (Ideal-Typical Model)



This figure illustrates a theoretical framework for understanding nationalist movements among ethnic minorities. It utilizes the concept of core ethnic group in a state elaborated by Gordon (1964). In the USA, the core ethnic group is White Anglo-Saxon Protestant (WASP), into which northern Europeans most readily assimilated. The distance “d” of other ethnic groups from the core group will determine the ease with which it assimilates into the core. If racial differences are seen as distinct, then integration will be very slow. The perceived level of achievement of a group is a reflection of its development rate. Those minorities at position “C” will tend to be stereotyped as lazy and shiftless by the core, “B.” Position “A” is defined by the core as pushy and aggressive. Integration and assimilation patterns depend on where the minority is on this continuum.

According to Cottam and Cottam (2001), the minority community at position “C” will tend to be stereotyped with contempt as lazy and shiftless, i.e., childlike, by the core, “B,” as well as by “A.” “C” will tend to be self-servingly stereotyped by “B” as weak in self-discipline and in the capacity to delay gratification. In sum, “B” will tend to blame the victim of oppression for the pathological behavioral manifestations of oppression (Staub, 2016, 69). Position “A” will tend to be stereotyped with envy as aggressive and well as conspiratorially and treasonously self-loyal and parasitical by “B” and “C,” i.e., the anti-Semitic stereotype (Bilewicz and Krzeminski, 2010). “A” will tend to stereotype “B” as culturally primitive, cruel, powerful and dangerous, i.e., the barbarian stereotype. The assimilation patterns that appear regarding minorities depends on where the minority is on this continuum (Gordon, 1964, Cottam and Cottam, 2001). The American white Anglo-Saxon protestant (WASP) core tends to stereotype African American and Indigenous communities as backward. Kapralski (2016, 110) describes collective behavior patterns akin to those evident in the 1921 Tulsa, Oklahoma white mob attack on the so-called Black Wall Street business district. Europeans tend towards the same perceptual simplification of the Romani people:

*“In the evening of June 25, [1991, in the town of Mlawa, Poland] the crowd gathered in a local bar and then went on to demolish houses inhabited by Roma. It should be noted that the first target of the attack was not the house of the young man [already in custody] who caused [the car] accident [killing 1 and injuring another], nor the wooden cabins in the vicinity of the bar, inhabited by the poorest Roma. The*



*crowd demolished the houses of well-to-do Roma and, on the second day of the riot, also the flats of less prosperous Roma (but the cabins of the poorest were left undamaged)*” (Kapralski 2016, 110).

Groups stereotyped as backward require external imposition of regulation because of their tendency towards “lawlessness and social deviance” (Toninato, 2018, 150). Their autonomous ingroup development and participation threatens the status quo dominated by “B,” which may then move to punish “C.”

Periods of accelerating social change contribute to perceived threat to ingroup political control which correlates with “conspiracy theorizing” as a manifestation of anti-Semitism psycho-social behavior (Kofta, Soral and Bilewicz, 2020, 901). Elite leadership among “A” and “C” communities will tend to bifurcate between those elites willing to collaborate and assimilate with “B,” versus those who will tend functionally to demand accommodation by “B.” Collaborative elites will tend to be more conservative, in accordance with their willingness to accommodate and assimilate. Rejectionist elites will tend to focus more on demanding societal change, including willingness to pay the significant costs of secession if perceived as necessary and achievable. In the case of Malaysia, the perceived local challenge from the advanced, business-oriented Chinese minority led to the expulsion of Singapore from the Malaysia confederation due to Singapore’s predominantly Chinese population. The Chinese minorities in these states in turn cooperate with the security services that tend to dominate them, receiving security in return for providing economic resources to these authorities (Chong, 2015). The danger from stereotyping to which the Chinese minorities are vulnerable was illustrated again in 1998 with the disintegration of the Suharto regime and the pogrom-like attacks against the Chinese (Bertrand, 2008).

In cases with the most polarizing political dynamics, militant rejectionist elites may lead separatist, i.e., national liberation, movements. A prerequisite is the prevailing view this highly costly option as being politically achievable (Kebede, 2001). Kurdish minority separatism among the post-colonial states partitioning upper Mesopotamia is a rejection of subordination and forced assimilation. It results from perceived political opportunities with the disintegration of Iraq and Syria (Cottam and Cottam, 2001). Collective core cultural groups in post-colonial states tend to stereotype the Kurds as backward. Armenians were subjected to genocidal attacks during the First World War. Their structural embedding as an advanced minority led to suspicion of treasonous collaboration with Russia as Ottoman Turkey’s enemy. The genocidal violence they suffered foreshadowed comparable behavior patterns a generation later against the European Jews. It is noteworthy that Kurdish tribes constituted a disproportionate share of the coercive apparatus that perpetrated the Armenian genocide. As a backward group, their loyalty to traditional leaders cooperating with the central government made them more reliable as a coercive instrument in the multi-national Ottoman empire, the “hamidiye” (Souleimanov, 2012, 79).

The model diagrammed in Figure 1 considers the contestation between traditional and progressive, pro-change liberal elites. The latter, e.g., Iranian Prime Minister Mohammad Mossadegh (1951-53), are typically frustrated by the former in the early stages of mass political mobilization. This obstruction intensifies intra-progressive elite polarization between liberal and authoritarian radicals. Pro-change authoritarian radicalization, e.g., Ayatollah Ruhollah Khomeini’s ascension, is a response to these traditional, aristocratic elites, e.g., the Shah of Iran, tending to solicit external aid (Cottam, 1988). Their parochial control and traditional, ascriptive high status are threatened by intensifying national self-determination social justice movement demands. They seek thereby to prevail in their domestic struggle, while their contestants approach the great power opponent of the traditional elite’s great power patron. The propensity to respond positively to these solicitations is significantly dependent on the intensity of conflict between the great powers. It leads to an escalating dynamic of indirect external competitive interference in the post-colonial state (DeDominicis, 2019). The US allied with the traditional rulers of the Persian Gulf oil kingdoms. They were concerned with the European twentieth century partition and colonization of the Arab world insofar as it destabilized their predominance.

The US alliance with these conservative rulers was significantly a legacy of the Cold War while the USSR allied with the so-called rejectionist Arabs. The latter tended to be authoritarian militant representatives of secular pan-Arab nationalism. The latter rejected the establishment of the state of Israel. They supplanted the liberal progressive movement leaders who fell to external competitive subversion. Militant secular nationalist leadership failures, e.g., the humiliating outcome of the June 1967 Six Day War, strengthened sectarian social movement leaders. These populist social movements evolved into various branches including manifestations such as the Islamic State. This dynamic, however, requires that the mass public share a sense of self-potential power capability sufficient to believe in and aspire to the goal of pan-unification, despite the great costs entailed in the effort. Pan-African and the Indigenous movements are not collectively aspiring to unify a partitioned imagined national community into a sovereign entity to recreate the glory of an imagined unified sovereign golden age medieval past. Their collective propensity towards militancy is much more limited; greater aspirations are unwanted or are perceived as hopeless (Cottam and Cottam, 2001).

Today, advanced minorities in the US, i.e., Jews and Asian-Americans, have been targeted by members of marginalized but mobilized groups in spontaneous attacks. These assaults are reminiscent of pogroms against Jews in late imperial Russia. Asian-American businesses were targeted in 1992 in the Los Angeles riots and again in 2015 in Baltimore (“Count of Damaged” 2015, NPR 2015). Most recently, in the midst of the Covid-19 pandemic that President Trump described in racist terms such as the Wuhan flu or the kung flu, individual Black and Brown assailants have attacked Asian-Americans. In response to an interview question as to how to respond this increasing violence, New York state assembly member Ron Kim stated,

*“Listen, I think we all want to know that when we call 911, that police will show up and protect us. But to hand over everything, in terms of addressing the systemic reasons for the violence and hatred, to the police is not the solution. That requires much more resources and accountability from elected officials. It’s easy to individualize the hatred, to point fingers at the young Black and Brown teenager who are attacking the Asian older adults, and call it a day. It’s much harder to go back and improve the social conditions that’s brewing the violence”* [sic] (Kim, 2021, para. 27).

Generally, churches of the Korean diaspora are important in Korean American community organization. However, the church leadership had discouraged using the local church community as an organizational vehicle to direct political resources for influencing US policy objectives. This tendency changed following the attacks on Korean-owned businesses in Los Angeles in 1992 during the Rodney King police brutality riots (Jang, 2014). Korean businesses were again targeted in Baltimore in 2015 following the death in police custody of Freddie Gray, an African American.

The barriers and resistance to long term assimilation by “A” and “C” into the core, “B,” will correlate with the collectively prevailing perceived degree of cultural distance, “d,” from “B.” This perceived cultural distance in turn correlates with the differential rate of political mobilization among these groups. Immigrant Christian Europeans have assimilated more quickly in the white American core culture in this contested process than Jews and African Americans. In this long-term dynamic, the core culture alters, so that the American core culture today is distinct from its early modern foundations (Cottam and Cottam, 2001). Increasing intermarriage rates is one indicator of integration and assimilation (Qian and Lichter, 2007).

A legacy of these differential rates of popular political community awareness expansion in colonial contexts includes the formal and informal institutionalization of ingroup vs. outgroup stereotyping (Cottam and Cottam, 2001). In accordance with the principle of motivated reasoning, colonizing exploiters of indigenous human resources tended to self-servingly stereotype the exploited target group. It thereby justified the expropriation of their resources (Hanson and Yosifon, 2004). Africans enslaved for early capitalist commodity agricultural enterprises were stereotyped in effect as genetically inferior, or at least as benefiting from enslavement. The latter purportedly exposed them to so-called civilizing influences of the imperial

power. Dispossession of indigenous peoples' lands correspondingly occurs concomitantly with self-justificatory perceptions of the other as at best childlike, at worst as primitive savages. So-called progress required the expropriation of these resources by the core.

Policies and laws emerge around these collective intergroup behaviors, serving to institutionalize these stereotypes. Enforced behavior in accordance with these policies and laws functions to translate these perceptions into prevailing attitudes, which if viewed negatively, are labelled prejudices and biases. They may become systemic, i.e., collective behavioral intergroup interaction outcomes systemically reinforce this marginalization of the despised Other perceived as inherently inferior. It need not be articulated and consciously adopted by individual members of society but rather becomes a collectively habituated institutional system of minority-core collective interaction over generations. It tends systemically to produce self-reinforcing socio-economic intergroup interaction outcomes that confirm the institutionalized stereotype, e.g., African Americans are disproportionately represented in the criminal justice system. "Labels such as "criminal," "aggressive," "anti-school," and "hardcore" hover over Black male students' heads like crop dusters, spraying exclusion, oppression, and iniquitous discipline practices the very moment many enter the doors of American schools" (Hawkins-Jones and Reeves, 2020, 40). Intersectionality refers to the reinforcement of systemic societal marginalization. It accumulates socio-economic and health disabilities targeting the more vulnerable, increasing their vulnerability and cyclical marginalization.

Those systemically marginalized will more likely be poorer, thereby more likely to live in polluted living conditions, thereby to be more unhealthy and less able to work, reinforcing their marginalization. Empowering the marginalized requires exploiting this self-awareness of structural marginalization to self-identify as a diaspora. Self-identification with a homeland is a defining characteristic of a diaspora. Diaspora legacies of colonializing, enslaving early capitalist commodity-training empires include communities tending not to have intensely felt self-identifications with a powerful homeland state. "One of the strongest characteristics of a diaspora, however, is its self-conscious status as an immigrant community with an external homeland, even if that homeland may have no political reality" (Cribb and Narangoa, 2004, 184-85). The pan-African diaspora of course does self-identify with Africa, but Africa is not a centralized, powerful nation state political actor such as China. Pan-Africanism in the US is also predominantly an elite phenomenon (Cottam and Cottam, 2001). Unlike the Chinese or Jewish diasporas, the diasporas of "the wretched of the earth" are less vulnerable to core group scapegoating as an imperial fifth column threat (Fanon, 1961). They lack an influential nation state homeland to which to be suspiciously stereotyped as secretly loyal.

### Authoritarian Populism

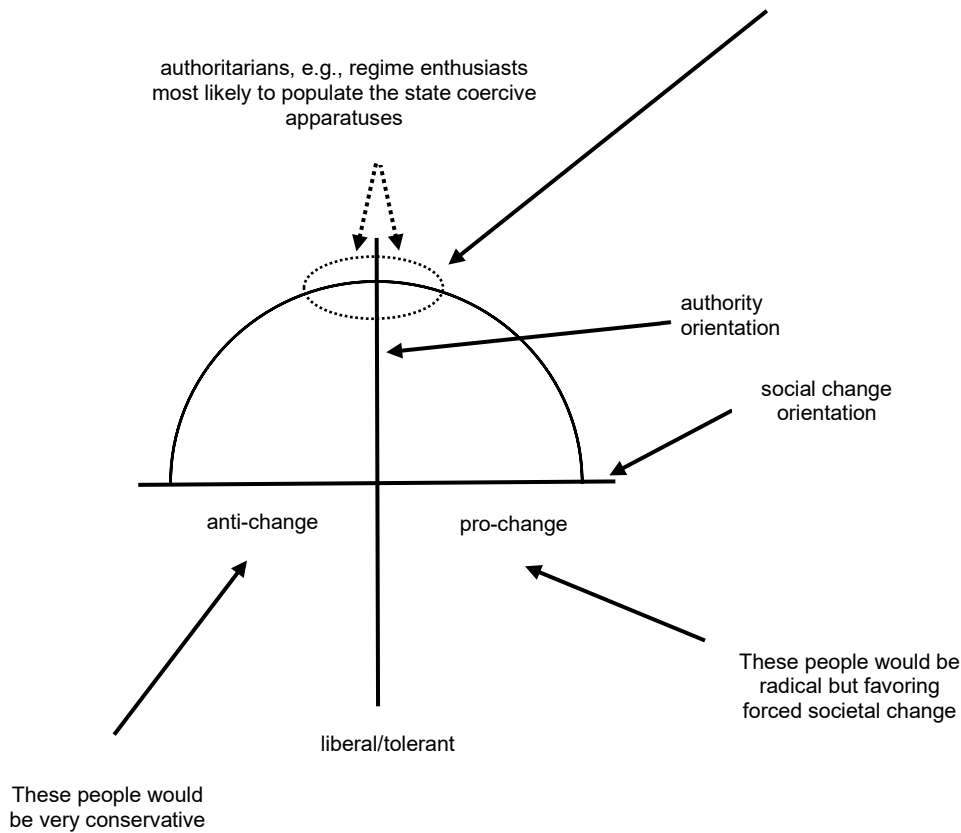
This perception of tendency towards conspiratorial treasonous disloyalty can contribute to the occurrence of genocidal attacks in the midst of political turmoil. "[L]ike in Malaysia, indigenous Indonesians sometimes regard the ethnic Chinese as disloyal citizens. When President Suharto came to power after an abortive coup in 1965, he blamed ethnic Chinese in general, and the Communist Party in particular, for the turmoil. Countless ethnic Chinese died in the subsequent bloodbaths. Beijing reacted by repatriating thousands of ethnic Chinese. Jakarta, in turn, suspended diplomatic relations with Beijing" (Friedrichs, 2018, 182-83).

Another aspect of the control system of the authoritarian populist regime is to attempt to strengthen the core enthusiast constituency by manipulating traditional negative stereotypes of minority groups. The charismatic demagogue scapegoats them. Outgroups within the polarized polity perceived as comparatively high achieving are prone to be caricatured in terms familiar in Europe as the anti-Semitic stereotype. Comparatively high-achieving ethnic, sectarian and racial groups in relation will generate emotional responses of envy from the core cultural group, usually an ethnic majority, that dominates the polity. This group by virtue of its political dominance implicitly creates the self-serving archetypal image standards

foundations of norm behavior in the polity upon which the state exists. Comparatively high-achieving ethnic groups in terms of socio-economic status, e.g., Jews in Europe, will tend to be viewed with envy by intense self-identifiers with the core group. Envy is the emotion engendered upon perceiving members of an ethnic minority outgroup having comparatively higher socio-economic status which the core self-identifiers desire. Since the core implicitly sets the stereotype standards for proper vs. improper behavior, the advanced minority group's status is self-servingly viewed as inappropriately and unfairly acquired.

Figure 2: Authoritarian Orientation and Leadership Charisma

Instead of a left-right scale, in the figure below, a strongly positive orientation towards authority explains why so many German Communists were attracted to Hitler to support the Nazi regime.



*This figure shows how personal authoritarian orientation tends to override overt ideological dogma in explaining the relative degrees of charismatic authority an authoritarian populist leader has within a polity. Adorno, Fenkel-Brunswick, Levinson and Sanford (1950) identified a personality syndrome which they termed authoritarianism. Authoritarians are extremely conventional in their attitudes and morality. They are particularly hostile toward minorities or those individuals with unorthodox lifestyles. They view the world in which they live in terms of hierarchy. They offer obedience to those of high status. They attempt to dominate those whom they perceive to be below them in the sociopolitical order. One can find authoritarianism among people who support extremist politics of either the right or left (Danziger, 2007). They include the 1/6/21 rioters.*

Danziger (2007) notes that Adolf Hitler appeared to accept the principle that authoritarianism can associate with ideologies of the left or right. Despite the fact that the Communists were the archenemies of the Nazis, he had instructed Nazi Party officials to accept immediately into membership anyone who had previously been a Communist. Hitler assumed that these Beefsteak Nazis, who were brown on the outside - brownshirts - and red on the inside, would redirect their vigorous political support from one ideological extreme to the other. The propensity to stereotype is correlated with authoritarian orientation. One recent experiment on intergroup stereotype content and individual behavior seems to have confirmed this finding. "... [L]ow-RWA [Right Wing Authoritarian] participants seem more permeable to new evidences coming from the

actual social interaction respect than high-RWA ones ...” [*sic*] (Ponsi, Panasiti, Aglioti and Marco, 2017, 15).

The Nazi authorities manipulated stereotypes as scapegoating to overcome intra-core group polarization and mobilize political support. Scapegoating by two heretofore adversaries against a common third target as a perceived source of shared internal threat can generate a positive “ally” stereotype (Cottam and Cottam, 2001). This positive stereotype individual-level analogue is the friend stereotype by which these polarized core elements now towards each other. Part of the anti-Semitic stereotype is the conspiratorial component. The advanced minority purportedly has higher socio-economic status because of ingroup hidden manipulation of significant components of the polity. Despised lower status ethnic ingroups, stereotyped as backward and childlike by the core, are prone to be perceived as being instruments for manipulation by the despised higher status outgroup. The supposed aim of this alleged manipulation is to compensate for the advanced minority group’s smaller numerical population by utilizing the larger minority backward group to suppress the core. “White supremacy today is also distinguished by the prevalence of the “great replacement theory” - the idea that there is a plot, masterminded by Jews, to replace whites with other races” (Lord, 2019, para. 12).

## THE AMERICAN POLITICAL REGIME

### Political Authoritarianism and Liberal Symbolism

Effective liberal neo-corporatist regimes provide institutionalized routes for integration of potentially conflictual societal constituencies (DeDominicis, 2021). The American civil rights and other New Left social movements functionally aim to promote opportunities for social mobility and social creativity amidst changing individual and societal values. Discontent leads to mobilization for collective action to change policies, perceptions and attitudes to provide social creativity opportunities with real, concrete benefits. Rebuffs may lead to social competition.

The core group countermobilizes for collective reactionary pressure as it appears to be less prosperous with less status in a globalizing, diversifying and pluralizing world. White male core group grievance movements react to not receiving or losing the ascriptive status dignity their core enthusiasts habitually assume is their due (Clark, 2020). Traditional values are under threat, including from abortion rights because it challenges the traditional white male patriarchal family model. Women who are invested in self-identity terms in a relationship with a man who occupies this position may be offended by other women who challenge this self-identity conception by their very activity. Traditional conservative clergy articulate these traditional notions and they lead these conservative populist reactive social movements. Amidst the Covid-19 pandemic, American religious conservatives protested against the extended state governor-ordered shelter-in-place orders. They suppress church service attendance as a non-essential social gathering function while abortion providers, liquor stores and cannabis dispensaries remained open (Liptak, 2020).

Notably Covid-19 vaccine hesitancy has been a persistent issue among the African and Hispanic American communities and also among Trump enthusiasts in the WASP Republican party core (Otterman and Wilson, 2021). The stereotyping of so-called backward minorities in a direction conforming with the colonial stereotype by the core and advanced groups is reciprocated by the former. In conditions of social stability, the backward minority will tend towards perception of the perceived threat from core and advanced in terms of the imperial stereotype (Cottam and Cottam, 2001). Collective behavior patterns that conform with it include a tendency to avoid interaction with the perceived superior culture imperial threat to self-identity satisfaction. The pharmaceutical-medical-scientific complex assuming transnational global leadership in confronting the pandemic is arguably perceived as an imperial threat to ingroup national self-identity.

The American national political control system significantly relies functionally on a parochial community focus founded in early modern colonizing rural political economy utilizing enslaved labor. This legacy remains in the proliferation and continued prominence of county authorities in immediate community regulation--coercive and otherwise—of education, welfare and services provision. The American symbolic idealization of so-called “small government” represents the collective cognitive-affective accommodation to this legacy. “Of the seven states with 100 or more counties, five are former slave states. Texas has far and away the most with 254; Georgia 159 and Kentucky (a state with two-thirds Georgia's land area and much, much smaller than Texas in both size and population) 120” (Hutton, 2014, 4).

Traditional American authority parochiality resonates with the current decentralization mantra of neoliberal policy discourse. “Neoliberal economics and suburbanization have renewed the scope of county government in some places, often in ways that echo the nineteenth century” (Hutton, 2014, 1). This symbolic idealization of American romantic self-identity symbols derives from the self-justificatory function of motivated reasoning. “[T]he South is idealized for “authentic” American values, jeopardized elsewhere by economic and social change: close-knit families and communities, good manners, warm hospitality, hard work, honesty, firm religious beliefs, and an ethic of mutuality so strong that it could even soften the harsh edges of racism. Displacing these dynamics onto the exceptional South is to underscore their centrality to U.S. history” (Edwards, 2009, 535).

Early commodity-trade based global capitalism incentivized institutionalization of slavery, parochialism and consumption as the basis for gaining status among white settlers in colonial America. European-Americans raised their social status through increasing consumption income within the larger framework of an American ascriptive racial caste hierarchy that superseded European class hierarchy. American colonists engaged in motivated reasoning articulated rhetorically in Puritanism to justify enslaving other humans in order to maximize exploitation of resources for their material benefit. The evolution of America’s Puritan Calvinist religious ethical rhetorical forms reflected the core influence of the institution of slavery that continued to legitimate white supremacy (Zafirovski, 2020). The racial pagan other was everywhere, so the threat was everywhere, i.e., simultaneously universal and parochial, focusing social interaction awareness in the immediate vicinity. Religion evolved accordingly, as American Calvinism, unadulterated by aristocratic institutional influences, became both universalistic and parochial, like the universal Church in medieval Europe. It served to legitimate the parochiality-focused system of racial caste-based authority norms.

American WASP core regime institutionalization of normative habitual hierarchical obeisance associates with this ascriptive slavery legacy from motivated reasoning to justify segregation. That is, it functionally justifies white supremacy:

*“Race in 17<sup>th</sup> c. England once meant lineage (e.g., religion, tradition, language), but rearticulations across the Atlantic would soon identify the human body as the locus of racially differentiated “natures.” Race in 17<sup>th</sup>-18<sup>th</sup> c. British North America came to mean morphology, which defined the newly invented white race “almost exclusively” through bodily structures and markers. The next major shift occurred in the mid-19<sup>th</sup> c. United States, where biological sciences conceived of racial populations in relation to developmental processes and capacities. Such notions informed 20<sup>th</sup> c. US policymakers, physicians, and educators who feared for the white genetic “hygiene” assailed by homosexual, black, and other “sexual predators”” [sic] (Lee 2017, 18).*

Its institutional and affective legacy today tendentially stereotypes the post-civil rights movement urban poor today as individually, de facto inherently responsible via their culture for their impoverishment. This stereotype-based attitudinal behavior response to social justice demands intensified amidst the crisis intensification of societal polarization due to the disruptions of the Covid-19 pandemic. The WASP militant core tends to view these marginalized groups, disproportionately struck seeking government relief

intervention, as a threat to core national values. In sum, these marginalized groups implicitly or explicitly advocate “socialism,” a supposed mortal threat to the American nation (Klarman, 2020, 148). Grote highlights the tendency of community political economies to find, stereotype, marginalize and scapegoat minority groups to legitimate the status quo benefitting the dominant. Slavery as an institution is the most blatant historical form of this systemic process. “[T]he wounds of mass scapegoating continue to be as pervasive as ever but unremarkable, as if by mass wish fulfillment mass poverty transmogrified yet again from its actuality as an effect of a man-made social equilibrium first clarified by [Adam] Smith into being a tacit and otherworldly given” (Grote, 2009, 193).

Neoliberalism purposefully blinds itself to this reality, reflecting the institutionalization of self-serving images of self and other at the heart of slavery-based early commodity international capitalism:

*“While it [the neoliberal Chicago school of economics] may well also represent the collective-conscious ideology and utopia of capitalist plutocracy, oligarchy and aristocracy and laissez-faire capitalism, [Mannheim’s theoretical conceptualization of the] sociology of knowledge primarily reveals Chicago and related economics as the collective-unconscious one, consistent with its emphasis on ‘collective unconscious’ societal factors at the root of ideologies” [...]*

*“Chicago economics tends to merge this plutocratic apologetics with that of theocracy consistent with the observed empirical tendency for plutocracy and above all oligarchy and aristocracy to fuse or ally with the latter, as witnessed in European medieval society as well as contemporary America, especially the South (the ‘Bible Belt’)” (Zafirovski, 2019, 515-16).*

The path dependent legacy of the American community foundation upon ascriptive racial hierarchy includes the elaborative evolution of authority institutions. They both reflect and reinforce de facto casteism through collective behavior. Driving this behavior are institutionalized collective affect-laden stereotypes that are situationally dependent as to their saliency, i.e., when an actor perceives a challenge to the attainment of desired goals. For example, a public-school teacher undergoing performance evaluation may implicitly rationalize the comparatively underachieving performance of their students of color as due to their inherent laziness (Reyna, 2008). Teacher-actor passive response behavior on the basis of this stereotypical causal attribution is more likely to reinforce the comparative performance capability deficit of the student. It thereby reinforces the structural institutionalization of the stereotype.

These affect-laden institutionalized stereotypes of self and other lead to collective attitudinal responses to ingroup challenges. These responses include the accompanying motivated reasoning rhetorical ethological self-serving justifications. Donald J. Trump reflected and exploited these institutionalized, collective perceptions and attitudes supporting implicit but systemic, institutionalized white supremacy. His modal enthusiasts may surely deny that they are racists. Changing American polity demographics, diversification policies and political outcomes stimulated the saliency of intense traditional implicit ascriptive status idealized ethical stereotypes. They prevail within the WASP core. Trump’s campaigns exploited these affect-laden anxieties, making ingroup loyalty affect display the dominant political behavior pattern in his public political appeals for partisan support (Martin, 2021). The media refers to these behavior patterns as “culture wars” (Edmondson, 2021, para. 9).

In sum, racism is a structural and systemic output pattern as it manifests in repetitive collective interaction outcomes. Others have noted the institutionalized pattern of collective outputs that reflect this path dependency to produce systemic inequality on the basis of subjectively defined, ascriptive race:

*“Dr. Kendi’s book [How to Be an Antiracist], a memoirish argument that Americans of all races must confront their roles in a racist system, has drawn attention, and controversy, for pulling the word “racist” away from its current usage as a hypercharged word reserved for the clearest cases. He thinks the word*

*should be attached to actions, not people, and used to describe supporting policies -- like standardized testing -- that produce a racially unequal outcome. The focus on outcomes helped put Dr. Kendi at the center of the long-running argument about the roots of inequality. But when he published his book, he said, he was bracing for criticism from the left. It had become an axiom in some circles that Black Americans can't be racist by definition. But the people committing racist acts in his book include President Barack Obama and Dr. Kendi himself" [sic] (Smith, 2021, para. 10).*

Section 2 of the 1965 US Civil Rights Act, enacted amidst significant social justice movement challenges to the American regime, “prohibited laws that have discriminatory effects on minority voters in order to ensure that legislators cannot disenfranchise those voters simply by avoiding making a record of their intent to do so” (Litman and Willis, 2021, para. 12).

In a January 2021 poll, 66% of self-identified Republicans stated that the November 2020 election was “not legitimate,” reflecting Trump’s repeated falsehood of massive election fraud (Cox, 2021). Subsequently, Republican-controlled state legislatures throughout the US accelerated moves to restrict and limit ease of ballot access, completion, delivery and counting (Leonhardt, 2021). The functional assumption of these restrictions is that they would impact white voters, particularly the elderly and rural poor. The greater impact would disproportionately affect the urban poor, i.e., communities of color. They claim a significant danger exists of voter fraud, which has been vanishingly rare in the American modern era. This patterns response seems to be a multigenerational collective attitudinal reflex reaction of conserve traditional institutions that associate with functional WASP cultural hegemony. In sum, traditional voting procedures reflect an ascriptive WASP collective behavior orientation towards voting. It de facto functionally insists on being blind to informal voting barriers arising from intersectional socio-economic marginalization of stereotyped, historically despised minorities. In other words, it denies the structural, systemic racism in the American national system of authority norms whose systemic output critics label as white supremacy.

This 2021 Republican collective trend foundation is that a zero-sum, social competition focused relationship functions between the WASP core and underachieving marginalized ethno-racial groups. For example, in the Arizona Democratic Secretary of State’s lawsuit against Republican majority-passed legal restrictions on ease of ballot access, completion and deposit, the lawyer for the defendant openly admitted,

*“Overturning a restrictive Arizona law, said Michael A. Carvin, the lawyer representing the Republican Party of Arizona, “puts us at a competitive disadvantage relative to Democrats. Politics is a zero-sum game, and every extra vote they get through unlawful interpretations of Section 2 hurts us,” referring to the part of the Voting Rights Act that is generally used to protect voting access for minority groups.”*

*“It’s the difference between winning an election 50-49 and losing,” he said.”” [emphasis added] (Epstein and Wines, 2021, para.3-4).*

In the same report, the lawyer for the plaintiff stated,

*“In her closing statement on Tuesday, Jessica Ring Amunson, the lawyer for Katie Hobbs, Arizona’s Democratic secretary of state, urged the court to seek a higher vision of democracy than the “zero-sum” game the Republicans described. The country functions best, she said, when all eligible Americans have the right and access to vote.”*

*““We should actually want to ratchet up participation so that every eligible citizen who wants to vote can do so. Candidates and parties should be trying to win over voters on the basis of their ideas, not trying to remove voters from the electorate by imposing unjustified and discriminatory burdens,” she said.”*



*“Speaking of the Republicans, Ms. Amunson concluded: “Unfortunately, petitioners have made clear that that is not their vision of democracy””* (Epstein and Wines, 2021, para. 30-32).

Republican efforts insist that they are the ones being colorblind, in accordance with American ideals, i.e., the marginalized are individually each responsible for their marginalization. This last inference articulates the implicit attitudinal motivated reasoning justifying the white supremacy institutionalized collective attitude prevailing among the WASP core culture within the American polity.

### The American Regime Security Apparatus

The authorities may also reactively aim functionally to stabilize the regime through mobilization of the core group coercive apparatus to increase reliance on coercion. These bureaucratic coercive apparatuses as well can provide utilitarian economic and participation opportunities (Cottam and Gallucci, 1978). The security services have traditionally been a route for social mobility for assimilating migrant communities who face prejudicial discrimination. Nineteenth-century, Catholic Irish immigrants, confronted prejudicial discrimination and stereotyping as backward and brutish, prone to criminality. To this day, a slang term for a police wagon is a Paddy wagon (Painter, 2008, 13). They exploited opportunities for social mobility by joining local police forces, focused disproportionately on marginalized groups, including the Irish. It was both “a reflection of a racial and class hierarchy and also a way of giving power to groups that feel like they don’t have access to the top of the American economy” (Muhammad, 2020, para. 14).

Police unions have again come under intense criticism for their resistance to increasing police personal liability for use of force in interaction with civilians. WASP reactionary populists tend to evoke the “blue lives matter” mantra against Black Lives Matter, while police forces have substantially increased their minority group member composition. Police forces and the state institutional coercive apparatus have become associated with American white supremacy. This association allows the public to grant legitimacy to the police union as an exception to WASP reactionary populist suspicion of organized labor. After the 8/9/14 police killing of Michael Brown in Ferguson, Missouri, AFL-CIO head Richard Trumfka equated police unions with any other union, while AFL-CIO member turnout to protest the killing was “unsurprisingly meager” (Roediger, 2016, 229). “I doubt the possibility of a world without policing in the sense that societies inevitably define and enforce norms, which makes policing basic to cultural and structural relations” (Ward, 2018, 169).

This historical fact implies that an institution that has come to symbolize romantically the American nation is the local coercive apparatus, i.e., the local sheriff and police. Reporting on the appointment of the first Black county sheriff in the 131-year state history of Wyoming notes that “Sheriff Appelhans' approach is a stark departure for a Wyoming sheriff, a storied, sometimes archaic institution central to the lore of a disappearing American West” (Watkins, 2021, para.9). Enforcement of casteism parochiality requires a local enforcer. It may be a citizen’s militia, in its most militant form like the Ku Klux Klan, or in its more moderate form in the democratically elected local sheriff (Lepore, 2020). The decentralized national coercive police apparatus also plays a role: organizational parochialism in combination with nationalism. The Trump administration pit the George Floyd Black Lives Matter protests against the white working class. This behavior pattern was reminiscent of how US President Nixon pit the white working classes, both in uniform (e.g., the Ohio National Guard) and outside (working class whites) against protestors (Bryan-Wilson, 2007). The *New York Times* reported that the Trump administration resumed the policy begun during the Clinton administration to transfer surplus military equipment to local US police departments during the “war on drugs.” This transfer expanded during the “war on terror” after the September 11, 2001 attacks.

The dispersal of the US security apparatus both geographically and institutionally as a legacy of this parochial, slavery-based political economy continues in its ramifications. A US National Public Radio

report noted that since 2008, many American localities have increased fees and charges on those convicted of misdemeanors, e.g., traffic violations, aside from felonies. The politically and economically marginalized have been increasingly shouldered with growing fines and fees, including extraneous local government service charges. This trend is a response to failure to increase taxes to pay for public goods like community security and public health. These negative policy trends build upon historic marginalization to further reinforce institutionalization of marginalization in a positive feedback loop. This report further notes that local authorities in Ferguson, Missouri had issued so many arrest warrants for failure to pay these assigned fees so that the average household had 3.6 warrants. To counter these trends one economist advocates American state governments no longer allowing local policing and judicial authorities to keep all fees and charges gathered through these means (“Fine and Punishment,” 2021).

## DATA AND METHODOLOGY

The process tracing methodological approach in this analysis portrays the evolution of the American state from its settler colonial beginnings to explain current political cleavages and polarizations. The police killing of Michael Brown in Ferguson on August 9, 2014 was a catalyst for mobilization publicizing the Black Lives Matter social justice movement. This economist’s policy recommendation would disincentivize reliance on functionally reinforcing the marginalization of the historically subjugated for exploitative value extraction (Ibid.). American Gramscian legitimation of the current system portrays the marginalized as poor because of their inferiority. As argued above, European settler colonial religiosity legitimated enslavement and expropriation as due to the subjugated lacking God’s grace.

The Obama administration prohibited the transfer of military weaponry to US police departments after a series of high-profile police killings of Black men. The Trump administration rescinded the restrictions in 2017 (Edmondson, 2020, para. 14). D’Amico (2017, 11) argues “much of classical criminology is in effect a retroactive composition of commentaries provided by classical political economists that happened to touch upon the subjects of crime and punishment.” Outsourcing to for-profit prisons in the penal system is a stark illustration of the property and whiteness being intrinsically related in American institutionalized collective attitudes. Its historical foundation lies in African Americans originally viewed as enslaved labor from which to profit. All components of the judicial system, including bail and the effort to require payment of all court fees, enforce a form of neo-serfdom. Slaves replaced serfs as Calvinism came to America without a state-sanctioned church legitimating class hierarchy ingroup identities. Rather American Calvinism focused on one, race, justifying the institution by its being employed against heathens. Slavery thereby Christianized them. The industrializing North moved to commodify labor by segmenting it temporally into a more fungible service, i.e., wages. Formal-legal institutionalized slavery faded in the North in the beginning of the nineteenth century.

The modal member of the core, the so-called WASP group into which other Caucasian-European immigrants have assimilated, rallied around Trump amidst the Covid-19 pandemic. “[W]hite people [were] the only racial group in which a majority voted for Trump” in 2016 and 2020 (Cineas and North, 2020, para. 2). The casualties of the pandemic have been disproportionately African American and Hispanic-American. These groups are disproportionately more likely to live in the most densely populated urban areas. Their occupations and lower incomes are more likely to require them to continue to circulate socially in order to work, i.e., they tend to be much less able to shelter in place, work remotely, and practice social distancing. They also are more likely to have acquired pre-existing medical conditions and weakened immune systems for the same reasons as a legacy of Jim Crow, structural racism and undocumented status. These groups also constitute a disproportionate percentage of the incarcerated American population of over 2 million where social distancing is also not readily feasible. The Covid-19 pandemic can come in effect to be collectively perceived among the modal WASP core group member as an affliction targeting the urban poor.

Collectively, typically unspoken, heretofore latent, American stereotypical assumptions, with their roots in the early modern colonial political economy, equate poverty with racial inferiority (Gould, 1999). They may increase in salience and intensify while Trump-associated elites, as the so-called alt.right, occupied senior positions in the WASP core group-dominated American state. They manipulated symbolic so-called dog whistles while attacking Democratic party government officials at the federal, state and local level. The modal WASP voter appears to equate the Democratic party as the party of American non-whites. According to the Pew Foundation, Trump's margin of greater support among 2016 White voters was 21%: 58% for Trump, 37% for Clinton. Romney demonstrated 20% greater support among 2012 White voters over Obama (Tyson and Maniam, 2016).

The Trump administration stereotyped Muslims as a terrorist threat. Israel's conflicts with the overwhelmingly Muslim communities amidst which it was created intensifies the alliance of American white conservative populism with American Zionism supporters. Many Jewish-Americans are supporters of Zionism, as are many in the US evangelical white Christian community. The latter is the American sectarian self-identity group most cohesively supportive of the Trump election campaign (Rogers, 2021). Both the US and Israel are colonial settler-based states, i.e., racism is at the foundation in the identification of self vs. the racial Other who has been displaced and its resources expropriated.

As Cottam (1994) notes, the ally stereotype is relatively ephemeral, based on a convenient tactical alliance that can change if ingroup tactical aims change to achieve ultimate objectives. These objectives include Western community control over the Levant, i.e., the so-called Holy Land, and Greater Israel made achieving this identity ideal possible. Jewish-American supporters of Zionism have welcomed this evangelical support, but some observers view this support as potentially and dangerously volatile (Kirkpatrick, Dias and Halbfinger, 2018). Politically high-profile American evangelical pastors John Hagee and Mike Bickle described Adolf Hitler as sent by God to persecute the Jews to drive them to Israel after rejecting Jesus as the Messiah (Maddow, McNeal and Benen, 2016). Authoritarianism is a significant component of Trump's white nationalist populist political charisma.

Targets for advanced group stereotyping include East Asian-Americans particularly with the rise of China. Targets for backward group stereotyping as being manipulated by the advanced group include refugees. "In October 2018, a mass shooting occurred at the Tree of Life Synagogue in Pittsburgh. Just before the attack, the shooter condemned a Jewish-run refugee charity, claiming that they bring in invaders that kill our people, which echoes a common Great Replacement narrative" (Ocbazghi, 2019, para. 31). The latter "narrative" is the thesis that a global conspiracy is "maliciously marginalizing and deliberately replacing white populations" (Ibid., para. 3). As the largest ethnic minority in the US, many Hispanic families have members who are undocumented. The fear of being targeted and deported therefore extends far beyond the undocumented individuals. The conspiratorial worldview would include these groups favoring free trade and loosened border controls. The building of the wall barrier along the US-Mexico border's significance lies not really in its effectiveness in reducing immigration. Rather, its significance lies in reinforcing collective American polity perceptual trends in perceiving intensifying threat from external, culturally distant states and their populations, reinforcing stereotyping.

*"And with the border wall, he [Jason Scott Smith, a professor at the University of New Mexico] argued, what matters isn't just what was built (452 miles of wall, he said, only 80 of which was new). "Trump's rhetorical commitments to infrastructure, while unfulfilled in terms of physical construction," Smith wrote in his paper, "in fact underwrote a sea change in the legal mechanisms and policing capacities of the federal government.""*

*"That included harsh deportation and detainment policies for unauthorized immigrants. And then there was the larger psychological and symbolic effect of the wall itself. "Maybe in terms of mileage it's not a*

*lot,” he said during the discussion. “But the visual cruelty of the wall is really striking.”*” [emphasis added] (Schuessler, 2021, para. 14-15).

The wall reinforces attitudinal trends of xenophobic, exclusionary behavior in response to these perceptions. The wall also reinforces national security defense values. With the nuclear setting and nationalism, national grandeur’s salience may trend towards exclusionary, xenophobic behavior. It demonstrates economic and social dominance over the internal representatives of the threatening other, e.g., Hispanic and Chinese Americans. Border wall construction continued during the Covid-19 pandemic (Smith and Holden, 2020).

The administration of Mexican President Andres Manuel Lopez Obrador was notably quiescent in reacting to the Trump movement’s scapegoating of Mexican immigrants and undocumented residents. Trump officially launched his successful presidential campaign in his June 2015 announcement, declaring that they threaten Americans by being “rapists,” “criminals,” “drug dealers” (Lee, 2015). During Lopez Obrador’s July 2020 visit to Washington, he stated [...] “I’m here to express to the people of the United States that their president has behaved with us with kindness and respect. You [Trump] have treated us just as what we are: a country and a dignified people; a free, democratic, and sovereign people” (Leal, 2020, para. 8). The political psychology of nationalism implies that a more active, rhetorically hostile response would functionally have served to reinforce Trump’s mobilizatory appeal among his core support group. In such a scenario, a more antagonistic response would have facilitated Trump’s scapegoat targeting of Hispanic Americans as a fifth column threat loyal to a hostile neighbor.

An essential feature of authoritarian populist regimes is intense polity polarization which a belligerent Mexico City response would have expedited in American internal political trends. It would have assisted in Trump’s re-election campaign, which although it failed, nevertheless generated surprising increases in support among Hispanic-American and Black voters (Ulloa, 2021). Trump’s militant appeals to white supremacy included as its concomitant an appeal to internalized stereotypes of Mexican inferiority as a backward minority in the American context. [...] “[T]he relationship between Mexican Americans and Mexicans of Mexico has been weak and riddled with mutual stereotypes of inferiority (Shain, 1994-95; 1999-2000). Put in social-identity terms [...], identification with Mexico is at best ambivalent in that it offers little in terms of a positive self-image” [*sic*] (Cottam and Cottam, 2001, 76-77). US President Trump’s polarizing stigmatization of Mexico and Mexicans caused more Mexican Americans to react to affirm their self-identification with the American nation state. They apparently asserted their self-association with assimilatory American nationalism by perceiving Trump favorably, even charismatically. “From Brownsville [Texas] to El Paso, a president who has routinely disparaged Mexicans strengthened his support among Mexican Americans [in the 2020 US presidential election]” (Hennessy-Fiske, 2020, para. 4).

## RESULTS AND DISCUSSION

Some may even perceive political opportunities in the midst of the pandemic crisis, i.e., reasserting WASP core group dominance of the state even utilizing coercion. This coercion may be in the form of disregard and passivity, i.e., doing less than what is feasible since the pandemic disproportionately targets the urban poor for serious illness. Limits exist to this tendency because inherent interdependency requires working class occupations to continue in which people of color are disproportionately employed. Many of these occupations are essential for a functioning, not to mention a prosperous, economy. Slowness and ineffectiveness in the disorganized American 2020 response in comparison with those of South Korea, Taiwan, Hong Kong, and China is a topic of political controversy. Some core group enthusiastic Trump defenders will highlight the greater American value upon personal freedom. It leads to a consequent reliance on local initiative to explain and dismiss the comparatively high American casualty figures. They will do so for the same reasons as they do regarding refusal to enact gun control laws to address the ongoing US

epidemic of gun violence disproportionately affecting people of color. In sum, it is the supposed “price of freedom” (Smyth, 2021, para. 28).

Freedom is the inverse of “socialism,” which has become a dog whistle for people of color taking control of government (Mulligan and Brunson, 2020, 332). They would use this control to increase taxes to pay for social welfare program increases as well as to challenge traditional behavioral norms, e.g., universal access to legal abortion. The attitudinal tendency to respond lethargically had its precedents in other catastrophes disproportionately striking populations perceived as backward and hence viewed with disdain. Examples include the failed 2005 US federal government response to Hurricane Katrina striking New Orleans, an urban area that is 65% African American. Irish Catholics during the Great Famine experienced a parallel London central government passivity that stimulated Irish nationalism (Kanter, 2016). This structural racist disdain and contempt may be most likely to appear in the incarceration system including the undocumented immigrant detention centers. The spread of Covid-19 among these populations may be dismissed as the price of committing crime and does not justify releasing massive numbers of the more than 2 million incarcerated and detained.

More intense cases in the Twentieth Century include the German scapegoating and then subsequent invasion and ghettoization of Jews in occupied territories amidst wartime crisis environments. “[T]he collective, sustained killing of an entire group by another is very much a social phenomenon” (Lower, 2011, 218). Escalating chaotic wartime functional collective, multidirectional scapegoating deepened their systemic segregation (Ica, 2013). Their targeting resulted in impoverishment, disease, famine and despair as objects of contempt and hatred. Their intensifying physical community marginalization concomitantly expedited the collective psychological accommodation to liquidating them in the dominant group consciousness (Gilfillan, 2018). The US is obviously not Nazi Germany, but Nazi German policies are the exponential intensification of trends in perceptions, attitudes and values having far-reaching policy making impact in the US. America is not exceptional.

The *New York Times* reported on the scientific and political authorities’ challenge of communicating the inherent uncertainty in Covid-19 pandemic information amidst its evolving concomitant crises. One issue raised was the public’s “trust” in the scientific information and its source if the uncertainty was explicitly recognized in this communication. The findings of the Cambridge University study covered in the report indicated that explicitly communicating uncertainty does not affect the degree of the public’s “trust” in the information (Roberts, 2020, para. 26). Whether or not the public believes the facts and figures issued by scientific authorities is another form of the question of whom do particular public constituencies trust. Through trust, a public constituency grants legitimacy to the authority to lead them in making binding decisions. In a time of crisis, stereotyping and affect associated with ingroup solidarity values become more salient. The modal WASP primary intensity self-identifier will tend, like nationalists generally, to orient towards becoming more tribal in both perception and behavior. They do so in responding to an intensely perceived challenge, i.e., threat or opportunity, to the ingroup (Oliver, 2020, para. 16). Concomitantly, their collective prevailing view perceptions will tend towards stereotypes of outgroups. Government policy achievement failures overseen by their leader is more likely to be dismissed as lies/fake news propagated by enemies or explained as part of conspiracies against the group and leader.

## A PATH FORWARD

Social justice reforms, e.g., affirmative action programs, functionally aim to break this self-reinforcing cycle of segregation and marginalization of traditionally, ascriptively marginalized minorities. International human rights treaties emerged amidst the growing awareness of ultimate interdependency within the international community in that structures of internal oppression increasingly impact external state actors. The Nuremberg trials underscored for the global audience that international peace and security requires worldwide recognition of legal limitations on state agent systemic abuse. These limitations include those

against systemic behavior marginalizing and abusing their respective internal state subjects (Cassese, 2005). Yet, avoiding nationalist backlashes against alleged external state internal interference in the internal affairs of a state is an imperative. The external pressure for internal social justice in the target state must appear to be unbiased. The justification for explicit or implicit imperialism has always included utilization of broadly appealing religious or ideological symbols, including today the defense of human rights. The global audience typically comprehends this behavior pattern, which Hans J. Morgenthau (1978) labelled nationalistic universalism. It still serves a purpose in terms of mobilizing allies and appealing for domestic support for external adventures.

Cottam and Cottam (2001) note that intervention in the name of human rights in the allegedly sacred internal affairs of a target state can generate a nationalist backlash within the target. Human rights as part of a proclaimed so-called responsibility to protect risks intensifying ethnic intergroup polarization. It can rise to potentially genocidal levels if it is perceived as propagandistic cloak for ultimate ulterior nationalistic motives of the intervener. The identified oppressed minority group risks even greater persecution because it is viewed as de facto fifth column traitorously serving the camouflaged, real imperialist aims of the external initiator state. An essential requirement is the creation of a prevailing perception among the target people and government that irresistible, unbiased global public opinion pressure in the area of human rights exists. Prevailing views must be that irresistible global public opinion demands are causing interceding governments to apply this pressure. The government applying the pressure must conclude that the political price of abandoning the human rights campaign is greater than they can pay. The target government and people must understand that the governments applying the human rights pressure lack the decisional latitude to abandon the human rights campaign.

“The central point is that success in the advocacy of human rights in international relations in the long run requires the existence of an international ideological pressure group capable of placing irresistible pressure on a number of states simultaneously” (Cottam and Cottam, 2001, 264). This analysis proposes the creation of a supranational identity community, with representatives occupying its superordinate institutional representational positions. It is part of the strategic formula prescription to create this international human lobby pressure group. Progress implementing this formula equates with creating a diverse human rights constituency. It would place pressure on transparent legislative, executive and judicial processes which demonstrate a variety of access points. “The issue of human rights must be separated from nationalistic values, and this can only be done if it is not associated with a particular country as advocate and if support for particular human rights stances is internal, external and diffuse enough so that no single actor is targeted, all are expected to live up to certain expectations, and no single actor can be identified as interfering in another’s internal, and untouchable, affairs” (Ibid.).

The initiator state’s demand to end systematic human rights abuses within the target state should be perceived by the target state public appropriately. It should be seen as stemming from irresistible, genuinely transnational public opinion pressure on the initiator state. The United Nations legal and institutional system is a rudimentary global institutional architecture for aggregation and articulation of human rights demands. Around this infrastructure, transnational civil society may coalesce and organize. The present nuclear setting includes near total popular political awareness. Generating this irresistible political pressure increasingly encompasses the necessity to incentivize effectively the cooperation of for-profit multinational corporations. They are the conduits for trade and investment necessary for national economic development in the era of nationalism, including national power and national dignity equated with technological advancement. Transnational civil society highlighting state agent systematic human rights abuses aim to pressure multinational corporations to boycott the offending state. Success may constitute one form of irresistible transnational public opinion pressure on the offending state. National intensive participation in the institutions of global capitalist production chains is a long-term necessity. MNC adoption of corporate social responsibility programs is evidence of some progress in highlighting global awareness of the political implications of economic consumption.

Public opinion here does not refer to public opinion surveys. Rather it refers to constituency demands to which the targets of these demands are more or less sensitive. The divergence between public opinion survey results and decision maker behavior is frequently evident. Core constituency support may be more important politically to professional politicians in the never-ending election cycle in a liberal democracy than more ephemeral public opinion survey responses. Social justice movement pressure on wealthy corporate political campaign donors is by definition a form of sustained public opinion pressure. Enhanced transparency to facilitate coordination of increasingly cosmopolitan constituency groups may facilitate building this public opinion pressure. Concomitantly, digital social media's rise also facilitates mobilization and coordination of militant ethno-nationalist movements, contributing to other trends in political polarization. The containment of this polarization will likely take the form of the securitization of polarization trends via the national security bureaucracy and the judiciary (DeDominicis, 2021).

The relationship of the nation state to human rights protection is a political dilemma. The capacities of the nation state include a greater capacity for statewide institution building. These institutions may also be used for enhancement and enforcement of human rights obligations as well as their violation. For example, American national military service policy has long been an arena for struggle to extend social justice protections: "It [male only US Selective Service military draft registration] imposes selective burdens on men, reinforces the notion that women are not full and equal citizens, and perpetuates stereotypes about men's and women's capabilities," lawyers with the A.C.L.U. [American Civil Liberties Union] wrote in a petition on behalf of two men who were required to register and the National Coalition for Men" (Liptak, 2021, para. 7).

Ethnic minorities soliciting support from a perceived powerful nation state may be more prone to be stereotyped and targeted for suspicion as a fifth column. Yet the nation state may also deploy its diplomatic bargaining leverage for human rights effectively if it appears to be under universalistic, irresistible public opinion pressure. Diasporas are particularly vulnerable to this stereotyping dilemma. One traditionally, ascriptively marginalized population group is universal, i.e., the female component of humanity. A rhetorical tendency is to justify coercive state interventions and systemic abuse, e.g., Beijing in Xinjiang province, with references to protecting women's rights:

*"Chinese officials have denied abusing Uighur Muslims, justifying their establishment of mass detention camps as a necessary counterterrorism measure. The Chinese embassy in Washington, D.C., extended that defense by claiming that time in the "vocational education and training centers" liberated the Uighur women from the need to rear children."*

*"The minds of Uyghur women in Xinjiang were emancipated and gender equality and reproductive health were promoted, making them no longer baby-making machines," the Chinese Embassy tweeted Thursday. "They are more confident and independent.""* (Gehrke, 2021, para. 3-4).

The US has justified its coercive intervention in Afghanistan also in terms of defending gender equality (Hakimi and Greenfield, 2021). These claims obfuscate the violation of national self-determination rights, the value demand for which is collectively more intense and whose salience if denied will override individual rights (Cottam and Cottam, 2001). The globally high-profile rhetorical political conflicts generated challenge multinational corporate tactical contextual stability aims that underpin their globalized corporate strategic planning. For example, Afghanistan will not develop without significant foreign direct investment.

## CONCLUSION

This study has analyzed American political regime polarization trends that increase polity vulnerability to authoritarian populism. This study analyzed these political trends through process tracing utilizing the public record. It applied a social identity-based political psychological conceptualization of nationalism to analyze the Trump phenomenon in comparative, diachronic and synchronic perspective. Cross-partisan perception of a great power foreign adversary generates additional political incentivization for the securitization of the American polity.

Political efficacy at conflict circumvention involves undercutting collective national polity predispositions towards hardening stereotypes in the prevailing view of a perceived challenger. A stereotype is a gross oversimplification of the internal political dynamics of a perceived challenger, e.g., an “evil empire,” which obviates the real political complexity among dynamics within any polity (Reagan, 1983). Degeneration in collective polity capacity to perceive complexity correlates with increasing failure to perceive policy options to affect the target’s behavior, e.g., an evil empire allegedly understands and respects only force. A politically efficacious cosmopolitan human rights campaign inherently promotes national polity perception of political complexity, i.e.--the antipode to perceiving stereotypically--in the policy making processes within all polities. Elaboration of the particular challenges to human rights protection within each polity necessitates analysis of the idiosyncratic historical, institutional and sociological facets of each polity for dissemination to the global audience. Of course, this ideal-typical depiction is aspirational (Cottam and Cottam, 2001). Global human rights movement organizations such as Amnesty International strive to provide such a neutral, unbiased assessment of the human rights conditions within each state.

The collective psychological predisposition to find points of consensual national political unity in the American vast post-1945 national security establishment is likely to focus on Beijing. In accordance with the adage, the enemy of my enemy is my friend, a collective process of scapegoating China will encourage cross-political cooperation in the polarized American polity. The counterbalance to perceiving an intense common threat is to see potential collaborators in terms of the positive ally stereotype (Cottam and Cottam, 2001). “Congress is also relatively unified on taking a tough stance on China” (Swanson, 2020, para. 16). A test case is US policy towards Taiwan. The incoming Biden administration invited “Taiwan’s top diplomat” in the US, Bi-khim Hsiao, to attend Biden’s inauguration on January 20, 2021 (“The World,” 2021). Effective cosmopolitan social justice movements are particularly significant also for working to undercut a Washington-Beijing conflict spiral. They would be successful if they deliver what are perceived within the prevailing view of national publics as impartial, unbiased uniform standard critiques of the human rights and global sustainability policy behavior of both states.

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# **REVENUE RECOGNITION ACCOUNTING: UNDERSTANDING THE IMPACT OF ASC 606**

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## **ABSTRACT**

*This case contrasts revenue recognition accounting under the previous standard, the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 605, and the subsequent guidance (ASC 606). This case is appropriate for undergraduate or graduate business courses focusing on corporate financial reporting. Accounting and finance professionals will find the case beneficial in understanding the application of the new pronouncement to common revenue recognition issues. Utilizing a putative Audit Partner who is auditing the environmental controls division of a manufacturing company, the case requires the procurement of information related to recently implemented revenue recognition accounting standards. The case employs a series of questions to ensure student comprehension of a variety of aspects of accounting for revenue recognition under the new standards, and the preparation of journal entries for fact patterns related to many typical transactions entered into by the auditee company (e.g. recognition of discounts.) The case makes extensive use of the FASB ASC references and guidance from the global professional accounting firms. Students should plan to spend 5-10 hours outside of class addressing the case requirements; in-class discussion of the case will run approximately 2 hours. Students may also present their findings in class for feedback and debate.*

**JEL:** M41, M42

**KEYWORDS:** Revenue Recognition Accounting, Accounting Standards Codification (ASC) 606, International Financial Reporting Standards (IFRS) 15, International Accounting Standards Board (IASB), Financial Accounting Standards Board (FASB), Manufacturing Industry

## **INTRODUCTION**

**R**evenue is one of the most important and pervasive measures of financial performance. The effects of revenue recognition impact numerous aspects of the financial statements via gross profit, operating income, net income, and earnings per share, to name a few. Therefore, it is critical that revenue recognition guidelines be applied consistently and comparably.

Unfortunately, previous revenue recognition guidance was difficult to implement in practice. Under ASC 605, revenue was to be recognized when it was “earned and realized or realizable.” This required the application of considerable judgment and resulted in a piecemeal methodology with industry-specific reporting anomalies that resulted in over 100 variations for revenue and gain recognition (the International Accounting Standards Board (IASB), 2008). Over time and in practice, revenue recognition was characterized by a lack of comparability and consistency amongst entities, industries, jurisdictions, and capital markets. The problematic nature of revenue recognition came to a head in the late 1990s/early 2000s as globalization, cross-border capital flows and aggressive and sometimes fraudulent revenue recognition approaches emerged. A series of fraudulent reporting schemes got the attention of financial statement users, standard setters and regulators (Carmichael, 2019.)

In an attempt to remedy these revenue recognition deficiencies, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) began the joint project of converging revenue recognition guidance in 2002 (Carmichael, 2019.) In May 2014, the FASB and IASB jointly issued ASC 606 and the IASB issued International Financial Reporting Standard (IFRS) 15, both entitled, “*Revenue from Contracts with Customers.*”

ASC 606 and IFRS 15 adopt the asset/liability approach, consistent with the conceptual framework, whereby revenue is recognized based on changes in assets and liabilities arising with contacts from customers. It is believed that the pronouncement should improve comparability and consistency between and among entities, industries, jurisdictions, and capital markets. The robust framework simplifies the preparation of financial statements and reduces the sources of guidance to which an organization must refer, thereby providing financial statement users with more useful information regarding the amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. (Deloitte, 2020)

Note: The FASB ASC is available at a nominal fee to academic institutions, their instructors and students here: <https://asc.fasb.org/>. We recommend using the academic ASC to enhance the classroom experience. For those without the access to the ASC, we have provided the section of the ASC where the information can be found using alternative methods.

Earnings management, “the planned timing of revenues, expenses, gains, and losses to smooth out bumps in earnings [usually to] increase income in the current year at the expense of income in future years” (Kieso et al, 2019 p. 4-5), is a form of fraud and decreases trust in public financial reporting and financial markets. Preventing revenue recognition fraud and abuse was “one of the original motives for the standard” (Carmichael, 2019). In 2002, in the aftermath of the Enron and other dotcom/tech bubble busts, many of which were revenue and earning management-related, the FASB noted that revenue recognition issues have “been a major source of restatements and prominently identified in Securities and Exchange Commission (SEC) enforcement actions” (Carmichael, 2019). In 2021, the Center for Audit Quality noted that “the most common type of fraud incident was improper revenue recognition (43%).” The Association of Certified Fraud Examiners in its annual Report to the Nations (ACFE, 2020) financial statement fraud schemes were the costliest, with a median loss of \$954,000 per episode.

ASC 606 applies to annual reporting periods beginning after December 15, 2017, including interim reporting periods within the annual period of adoption, for a public business entity and certain other organizations. Early application is permitted, but not earlier than the original effective date: annual reporting periods beginning after December 15, 2016 (FASB, 2022.)

In summary, revenue recognition guidance was contradictory and difficult to apply. In a globalized world, this affected comparability and led to aggressive or fraudulent practice and consequent SEC-mandated restatements. The FASB and IASB issued converged guidance in the form of ASC 606 and IFRS 15, “*Revenue from Contracts with Customers,*” in 2014 with implementation largely taking place in 2017 and 2018.

What will be the impact of implementing ASC 606, “*Revenue from Contracts with Customers*”?

### The Company

Table 1 provides a brief description of the key operational and revenue recognition facts and circumstances of Olympic Environmental Solutions, Inc. (“Olympic” or “the Company”).

Table 1: Key Operational and Revenue Recognition Facts and Circumstances of Olympic

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1	Olympic is a United States domiciled manufacturing company that began operations in 1969
2	Olympic is a leading global provider of equipment (hardware and embedded software), subscription Software as a Service (SaaS) solutions, and technologies that enable building owners to digitally manage their facilities to use space intelligently, cut operating expenses, and reduce maintenance. Equipment and services include everything from control systems for energy management, to cyber and other security systems and measures. Olympic offers various equipment and services to a diverse set of global customers and as a result, their earning process and revenue recognition processes have multiple aspects that are affected by the new guidance.
3	The Company sells a variety of color-coded solution configurations which provide equipment, supplies, accessories, installation, training and maintenance services. The color codes, in ascending cost and degree of customization of the configuration, are Bronze, Silver, and Gold. They correspond to differing levels of equipment quality, functionality and customer support services.

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*Table 1 shows some of the relevant operational and revenue recognition facts and circumstances of Olympic Environmental Solutions, Inc.*

The Audit Partner (the Partner) of Olympic wants to know what the impact on assets, liabilities, and the income statement will be upon adoption of ASC 606. Table 2 notes the revenue recognition accounting guidance the Partner requires on several issues:

Table 2: Revenue Recognition Accounting Guidance the Audit Partner Requires

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1	What are the new revenue recognition guidelines according to ASC 606?
2	How do the new revenue recognition guidelines impact the balance sheet, income statement, and disclosures?
3	What, if anything, needs to change, operationally and administratively, in terms of the accounting information system and data collection?

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*Table 2 displays the revenue recognition accounting guidance the Audit Partner requires.*

The Partner has asked a member of the accounting staff to report on the new ASC 606 guidelines in order to bring the staff up-to-date and assess their impact on the financials of Olympic.

## QUESTIONS

**Question 1:** The Partner is looking for an introduction to the new ASC 606 rules. Access the website of one of the global accounting, tax, and professional services firms (e.g. Deloitte, EY, KPMG, PwC, RSM/McGladrey, Baker-Tilley, etc.) Utilizing their ASC 606/Revenue Recognition publications, collect your findings and attach them as a file to your responses to the case questions herein.

**Question 2:** Use the Accounting Standards Codification or refer to one of the professional sources referred to in Question 1 to answer this question. Indicate the ASC standard followed by Olympic prior to the adoption of ASC 606. What is the number of the recently issued IFRS standard that corresponds to ASC 606? What is the meaning of, “The revenue recognition standard is converged”? Of what value is “convergence” to users?

**Question 3:** Describe the main differences when accounting for revenue recognition on contracts with customers between the prior standards (ASC 605) and the standard to be implemented (ASC 606).

**Question 4:** What is the key objective of the new revenue recognition guidance? What are the steps in the five-step process for implementing the revenue recognition principle under ASC 606?

**Question 5:** Using the Codification, briefly detail the significant elements of the five-step revenue recognition process under ASC 606.

**Question 6:** Perform various analyses related to specific issues in the revenue recognition process under ASC 606 that will affect the Company.

Table 3: Typical Revenue Recognition Issues with Which Olympic Will Have to Contend

The Company sells a variety of color-coded solution configurations which provide the equipment (hardware and software), installation, and various services (including SaaS) for total indoor environmental control. The color codes, in ascending cost and degree of customization of the configuration, are Bronze, Silver, and Gold. They correspond to differing levels of equipment quality, functionality, service and customer support. Respond to the requirements related to the following independent revenue arrangements for the Company’s equipment and services.

a. The equipment and support service of the Bronze Package is being offered for a total price of \$1,600. On its own, the equipment sells for \$1,400 (cost \$840). The Company estimates the standalone selling price of the support service (based on the adjusted market assessment approach) is \$300. The Company sold 100 Bronze packages on June 30, 2021, on account. The equipment was delivered and installed on July 25, 2021, and the company received payment the same day. Prepare journal entries for the Company for Bronze in June and July 2021. (Assume the company analyzes the sale of the equipment and support services and determines they should be considered two performance obligations.)

b. A customer is renovating a variety of buildings that require complete indoor environmental solutions in 2021. The customer purchases 800 Silver Packages from the Company during 2021. The equipment sale price and cost are \$2,000 and \$1,400, each, respectively. There is a 10% volume discount if the customer purchases 600 Silver Packages during 2021. On June 1, 2021, the Company delivered 520 Silver Packages on account. Assume the customer pays for the Silver Package purchases on June 30, 2021. Experience indicates the delivery of this many Silver Packages makes it certain the customer will be entitled to the volume discount. Prepare the journal entries for the customer for June 2021. Assume revenues are recorded net.

c. On January 1, 2021, Olympic enters into a three-year noncancelable subscription contract with a capable customer to provide access to its energy management control application software (a SaaS offering). On January 1 of each calendar year (2021, 2022 and 2023) of the contract, the customer will make the following nonrefundable payments: \$20,000, \$22,000 and \$24,000, respectively. The Company determines the \$66,000 total transaction price should be recognized evenly over the contract term (i.e., \$22,000 per annum) and equals the subscription’s Vendor Specific Objective Evidence (VSOE)-based and Standalone Selling Prices (SSPs) for the three-year subscription is \$66,000. The Company has contracted with the same customer for necessary implementation services for the SaaS subscription. The implementation contract calls for a \$9,000, one-time payment to be made on signing of the contract on January 1, 2021. Olympic reliably estimates the time and effort and expects to complete the implementation January 31, 2021. The VSOE and SSP for implementation services is \$12,000.

For simplicity, assume Olympic makes only one entry per year and ignore the cost of services. Prepare the journal entries on December 31, 2021, December 31, 2022, and December 2023 under ASC 606 and ASC 605.

*Table 3 notes important revenue recognition considerations for certain typical transactions at Olympic. The solutions to these questions will utilize relevant portions of the five-step revenue recognition process in accordance with the requirements of ASC 606.*

**Question 7:** If the company has to allocate the transaction price to separate performance obligations, what is required? While they need to use standalone selling prices, the contract will typically get a “bundled”/“basket purchase” (or “less than standalone”) price. How do companies develop their best estimate of what the good or service might sell for as a standalone offering of goods or services?

**Question 8:** In your opinion, does the new method of revenue recognition accounting provide a clearer picture of the company’s financial position?

**Question 9:** What are some of the implementation activities Olympic will need to plan on?

Questions 10 and 11 are optional and may be completed time-permitting.

**Question 10:** Discuss and analyze four articles written by the large multinational accounting, tax and professional services firms identified in Question 1. Evaluate the strengths and weakness of the new revenue recognition pronouncement. Make sure to answer the following questions:

1. In what ways are the quantitative and qualitative disclosure requirements more rigorous under ASC 606?
2. What does “due process” mean? How does the converged “Revenue from Contracts with Customers” reflect due process?
3. What types of entities will be more affected by the new revenue recognition accounting guidance? What are some of the areas that will be problematic for a sampling of, say, five of the industries (one issue per industry)?
4. What are the similarities and differences between the new revenue recognition accounting under US GAAP, ASC 606, as opposed to IFRS 15?

**Question 11:** Working in groups or individually, identify and discuss earnings management and revenue recognition issues found in any of the following classic texts or at the SEC’s Accounting and Audit Enforcement Release web site (number 4, below.) Using the guidance from one of the large multinational audit, tax and business advisory firms, identify any aspects of ASC 606 that would enhance or detract from

the earnings management and fraudulent or erroneous revenue recognition in the text or web site and related topic or case you select. Write a brief report detailing your findings.

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# REVENUE RECOGNITION ACCOUNTING: UNDERSTANDING THE IMPACT OF ASC 606

## TEACHING NOTES

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## ABSTRACT

*This case contrasts revenue recognition accounting under the previous standard, the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 605, and the subsequent guidance (ASC 606). This case is appropriate for undergraduate or graduate business courses focusing on corporate financial reporting. Accounting and finance professionals will find the case beneficial in understanding the application of the new pronouncement to common revenue recognition issues. Utilizing a putative Audit Partner who is auditing the environmental controls division of a manufacturing company, the case requires the procurement of information related to recently implemented revenue recognition accounting standards. The case employs a series of questions to ensure student comprehension of a variety of aspects of accounting for revenue recognition under the new standards, and the preparation of journal entries for fact patterns related to many typical transactions entered into by the auditee company (e.g. recognition of discounts.) The case makes extensive use of the FASB ASC references and guidance from the global professional accounting firms. Students should plan to spend 5-10 hours outside of class addressing the case requirements; in-class discussion of the case will run approximately 2 hours. Students may also present their findings in class for feedback and debate.*

## GENERAL COMMENTS

This case is designed to be used in an Intermediate Financial Accounting class. However, with slight modification, it might be useful to finance classes on financial statement analysis, a senior strategic management class, an MBA financial management or financial reporting course, or an appropriate section of one of the certification exam prep courses (CPA, CMA, CFA, etc.) The case was developed for use in a country that uses US GAAP and the Accounting Standards Codification (ASC). However, the International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) standards were developed in concert (converged) and are thus very similar. Thus, the case can be modified very slightly to reflect IASB guidance. This case is not designed for students to understand the intricacies of revenue recognition accounting, but rather as an introductory look at the new process for, and basics of, revenue recognition accounting. Any changes, amendments or updates to the standards may change the approach under ASC 606 and the case would need to be modified appropriately.

## SOLUTIONS

**Question 1:** The Partner is looking for an introduction to the new ASC 606 rules. Access the website of one of the global accounting, tax, and professional services firms (e.g. Deloitte, EY, KPMG, PwC, RSM/McGladrey, Baker-Tilley, etc.) Utilizing their ASC 606/Revenue Recognition publications, collect your findings and attach them as a file to your responses to the case questions herein.

**Solution 1:** This step in the case allows the user to see that there are many sources of information about the FASB ASC 606 guidance as well as at the ASC itself (FASB, 2022.)



Table 1: Relevant Publications Related to ASC 606 – Revenue from Contracts with Customers

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- a. **PWC**: [https://viewpoint.pwc.com/dt/us/en/pwc/accounting\\_guides/revenue\\_from\\_contract/revenue\\_from\\_contract\\_US/rr\\_pdf.html](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/revenue_from_contract/revenue_from_contract_US/rr_pdf.html) This link (PricewaterhouseCoopers, 2021) brings the user to the PWC site so that they may download a guide to revenue from contracts with customers.
- b. **Deloitte**: <https://dart.deloitte.com/USDART/pdf/8241a203-a4b3-11e7-bf31-d9d01b34306d> This link (Deloitte, 2020) brings the user to the Deloitte site that has both detailed guidance and summarized lease accounting guidance. There are also highlights for different aspects of revenue recognition accounting (Deloitte, 2021) towards the bottom of the page here: <https://www2.deloitte.com/us/en/pages/audit/articles/a-roadmap-to-applying-the-new-revenue-recognition-standard.html>.
- c. **KPMG**: <https://frv.kpmg.us/reference-library/2020/handbook-revenue-recognition.html>. This link (KPMG, 2021) brings the user to a KPMG Revenue Recognition Handbook.
- d. **EY**: [https://www.ey.com/en\\_us/assurance/accountinglink/financial-reporting-developments---revenue-from-contracts-with-c](https://www.ey.com/en_us/assurance/accountinglink/financial-reporting-developments---revenue-from-contracts-with-c). This link (Ernst & Young, 2021) brings the user to the EY website and a downloadable guide on ASC 606.
- e. **Baker Tilley**: <https://www.bakertilly.com/insights/webinar-the-revenue-recognition-transition-a-primer-webinar/> This link (Baker Tilley, 2016) provides the user an overview on ASC 606.
- f. **Grant Thornton**: <https://www.grantthornton.com/-/media/content-page-files/audit/pdfs/revenue-from-contracts-with-customers-navigating-guidance.ashx?la=en&hash=E7A609939EDED53D5E78CF0F7B16BECFFFB4A585> This link (Grant Thornton, 2018) provides a thorough guide to the ASC 606 guidance.
- g. **RSM McGladrey**: <https://rsmus.com/insights/financial-reporting/a-guide-to-revenue-recognition.html> This link (RSMUS, 2016) provides further guidance on ASC 606.
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*Table 1 provides a listing of relevant publications related to ASC 606, “Revenue from Contracts with Customers” from each of the Big Four websites and the relevant websites of several other large international public accounting firms. Some additional links are included in the References section.*

Key items that students should address include the various items included in the answers to the questions that follow—revenue accounting issues under ASC 605 (the superseded guidance), the five-step revenue recognition process, presentation and disclosure. See <https://www.fasb.org/revrec> for a complete listing of the main topics to be covered in the overview of the guidance.

**Question 2:** Use the Accounting Standards Codification or refer to one of the professional sources referred to in Question 1 to answer this question. Indicate the ASC standard followed by Olympic prior to the adoption of ASC 606. What is the number of the recently issued IFRS standard that corresponds to ASC 606? What is the meaning of, “The revenue recognition standard is converged”? Of what value is “convergence” to users?

**Solution 2:** This step in the case allows the user to see that in addition to the guidance from the large professional accounting firms, the Accounting Standards Codification is a rich source of information regarding revenue recognition guidance and serves some of the same function as the firm-specific guidance. Alternatively, students see that the professional guidance typically includes a reference to the appropriate section of the ASC.

Olympic previously followed ASC 605. The newly minted IFRS standard for revenue recognition is IFRS 15. Converged standards are US GAAP/IFRS rules that, because of collaboration between the FASB and the IASB, are nearly identical. Converged standards greatly enhance revenue recognition comparability and consistency across entities, industries, geographic locales and accounting standard-setting regimes, which is particularly important in an environment of widespread and intense globalization, cross-border capital flows, and equity-linked executive compensation schemes.

**Question 3:** Describe the main differences when accounting for revenue recognition on contracts with customers between the prior standards (ASC 605) and the standard to be implemented (ASC 606).

**Solution 3:** The main differences between ASC 605 and ASC 606 are delineated in Table 2.

Table 2: Brief Description of the Key Differences Between ASC 605 and ASC 606

	ASC 606	ASC 605
<b>Basis</b>	Principle-based	Rule based, <i>ad hoc</i> , piece meal, varies by entity, industry, jurisdiction and capital market
<b>Proliferation of Methodologies</b>	One methodology for recognizing revenue	Massive proliferation of inconsistent methodologies for recognizing revenue
<b>Convergence status</b>	Converged with IFRS	Not converged
<b>Comparability/Consistency</b>	Enhanced consistency and comparability	Industry/Geographic variances, numerous inconsistencies and lack of comparability
<b>Conceptual Framework Basis</b>	Conceptual Framework compliant--Account for revenue based on the asset or liability arising from contracts with customers and the changes thereto.	Less Conceptual Framework compliant as applying it required knowledge of more than 200 standards/rules/guidelines varying by revenue earning process, entity, industry, geographic location/accounting standard regime which results in widespread diversity in practice.
<b>Revenue Recognition</b>	Detailed, Five Step Revenue Recognition Process. Contract-based. Recognize revenue when each performance obligation is satisfied.	Highly judgmental earned and realized/realizable criteria. Led to over 200 varieties of acceptable revenue recognition methodologies and diversity in practice.
<b>Presentation and Disclosure</b>	Presentation of Contracts--assets and liabilities; modifications/modification approaches; costs to fulfill; significant judgments. Numerous other disclosures.	Very limited disclosure

Table 2 provides a listing of main differences between ASC 606 and ASC 605 (Deloitte, 2019.)

**Question 4:** What is the key objective of the new revenue recognition guidance? What are the steps in the five-step process for implementing the revenue recognition principle under ASC 606?

**Solution 4:** “The core principle is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.” (ASC 606-10-65-1; Deloitte, 2020.)

The five-step process for reporting on contracts with customers mandates that revenues are recognized to depict the transfer of goods and services to customers in an amount that reflects the consideration that the company receives, or expects to receive, for the exchange of the goods and services.

The five-step process for revenue recognition is as follows:

1. Identify the contract with customers.
2. Identify the separate performance obligations in the contract.
3. Determine the transaction price.
4. Allocate the transaction price to the separate performance obligations.
5. Recognize revenue when each performance obligation is satisfied.

**Question 5:** Using the Codification, briefly detail the significant elements of the five-step revenue recognition process under ASC 606.

**Solution 5:** The 5-step process referred to above is described in detail, including summaries and graphics, in *A Roadmap to Applying the New Revenue Recognition Standard* (Deloitte, 2020.) Students will likely also discuss key terms such as the asset-liability approach, collectability, contract assets/liabilities, contract modifications, distinct/interdependent, performance obligation, and transaction price.

**Question 6:** Perform various analyses related to specific issues in the revenue recognition process under ASC 606 that will affect the Company.

**Solution 6:** Solutions are included below each lettered portion of the Question.

Table 3: Typical Revenue Recognition Issues with Which Olympic Will Have to Contend

The Company sells a variety of color-coded solution configurations which provide the equipment (hardware and software), installation, and various services (including SaaS) for total indoor environmental control. The color codes, in ascending cost and degree of customization of the configuration, are Bronze, Silver, and Gold. They correspond to differing levels of equipment quality, functionality, service and customer support. Respond to the requirements related to the following independent revenue arrangements for the Company's equipment and services.

a. The equipment and support service of the Bronze Package is being offered for a total price of \$1,600. On its own, the equipment sells for \$1,400 (cost \$840). The Company estimates the standalone selling price of the support service (based on the adjusted market assessment approach) is \$300. The Company sold 100 Bronze packages on June 30, 2021, on account. The equipment was delivered and installed on July 25, 2021, and the company received payment the same day. Prepare journal entries for the Company for Bronze in June and July 2021. (Assume the company analyzes the sale of the equipment and support services and determines they should be considered two performance obligations.)

(a) Total revenue was \$160,000 (\$1,600 X 100). This is allocated to the two performance obligations (the equipment and the support services based on standalone selling prices). The standalone selling prices are: equipment \$140,000 (\$1,400 X 100); and, support services \$30,000 (\$300 X 100). Total standalone selling price is \$170,000. The allocation would then be:

Sales Revenue (\$140,000 / \$170,000) X \$160,000 =	131,764.71	82.35%
Service Revenue (\$30,000 / \$170,000) X \$160,000 =	28,235.29	17.65%

Both the sale of the equipment and the service revenue are recognized once the installation is completed on June 30, 2020.

The entries would be:

**6/30/2021**

Accounts Receivable	131,765	
Sales Revenue (Equipment)		131,764.71
Service Revenue (Support Services)		28,235.29
Cost of Goods Sold	84,000	
Inventory (\$840 X 100)		84,000

**7/25/2021**

Cash	131,765	
Accounts Receivable		131,764.71

b. A customer is renovating a variety of buildings that require complete indoor environmental solutions in 2021. The customer purchases 800 Silver Packages from the Company during 2021. The equipment sale price and cost are \$2,000 and \$1,400, each, respectively. There is a 10% volume discount if the customer purchases 600 Silver Packages during 2021. On June 1, 2021, the Company delivered 520 Silver Packages on account. Assume the customer pays for the Silver Package purchases on June 30, 2021. Experience indicates the delivery of this many Silver Packages makes it certain the customer will be entitled to the volume discount. Prepare the journal entries for the customer for June 2021. Assume revenues are recorded net.

(b) Consideration is variable based on the size of the customer (in terms of contracts signed/dollar value). The Company will decrease revenue recognized by \$104,000 which is calculated as the selling price of the Packages \$936,000  $[(\$2,000 \times 520) - (\$1,040,000 \times .10)]$ , because it is highly likely that it will implement the 10% discount. The entries would be:

**6/1/2021**

Accounts Receivable	936,000	
	Sales Revenue $[(\$2,000 \times 520) \times (1.0 - .10)]$	936,000
Cost of Goods Sold	728,000	
	Inventory $(\$1,400 \times 520)$	728,000

**6/30/2021**

Cash	936,000	
	Accounts Receivable	936,000

c. On January 1, 2021, Olympic enters into a three-year noncancelable subscription contract with a capable customer to provide access to its energy management control application software (a SaaS offering). On January 1 of each calendar year (2021, 2022 and 2023) of the contract, the customer will make the following nonrefundable payments: \$20,000, \$22,000 and \$24,000, respectively. The Company determines the \$66,000 total transaction price should be recognized evenly over the contract term (i.e., \$22,000 per annum) and equals the subscription's Vendor Specific Objective Evidence (VSOE)-based and Standalone Selling Prices (SSPs) for the three-year subscription is \$66,000. The Company has contracted with the same customer for necessary implementation services for the SaaS subscription. The implementation contract calls for a \$9,000, one-time payment to be made on signing of the contract on January 1, 2021. Olympic reliably estimates the time and effort and expects to complete the implementation January 31, 2021. The VSOE and SSP for implementation services is \$12,000. For simplicity, assume Olympic makes only one entry per year and ignore the cost of services. Prepare the journal entries on December 31, 2021, December 31, 2022, and December 2023 under ASC 606 and ASC 605.

(c) Under legacy GAAP (ASC 605), multiple deliverables are allocated based on their relative selling price using Vendor Specific Objective Evidence (VSOE). Under ASC 606 it is allocated based on relative Standalone Selling Price (SSP). Under legacy GAAP, future revenue is "contingent" upon the performance of the balance of the contract. Because the subscription contract has an escalation clause, the contingent revenue is "held back". Even though the allocation is the same under ASC 605 and ASC 606, the additional revenue is held back under ASC 605 and recorded using a "Contract Asset" account under ASC 606. The effect of this allocation method is that the discount or premium relative to VSOE/SSP shared equally among the various services. The appropriate entries and revenue allocation schedule are below:

ASC 606		ASC 605	
<b>12/31/2021</b>		<b>12/31/2021</b>	
Cash	\$29,000.00	Cash	\$29,000.00
Contract Asset	\$3,692.31	Revenue	\$29,000.00
	Revenue		\$32,692.31
<b>12/31/2022</b>		<b>12/31/2022</b>	
Cash	\$22,000.00	Cash	\$22,000.00
	Contract Asset		Revenue
	Revenue		\$22,000.00
	846.15		21,153.85
<b>12/31/2023</b>		<b>12/31/2023</b>	
Cash	\$24,000.00	Cash	\$24,000.00
	Contract Asset		Revenue
	Revenue		\$24,000.00
	\$2,846.15		\$21,153.85

Service	Contract Revenue	VSOE (ASC 605); SSP (ASC 606)	Allocation	Subscription Revenue per Yr. (ASC 606)
Subscription	66,000.00	66,000.00	63,461.54	21,153.85
Implementation	9,000.00	12,000.00	11,538.46	
Total	75,000.00	78,000.00	75,000.00	

Table 3 analyzes various revenue-generating transactions Olympic engages in. The solutions utilize relevant portions of the five-step revenue recognition process in accordance with the requirements of ASC 606. (AICPA, 2019; Flood, 2017; Deloitte 2019)

**Question 7:** If the company must allocate the transaction price to separate performance obligations, what is required? While they need to use standalone selling prices, the contract will typically get a “bundled”/“basket purchase” (or “less than standalone”) price. How do companies develop their best estimate of what the good or service might sell for as a standalone offering of goods or services?

**Solution 7:** Companies use one of three methods to develop an estimate of what of what the good or service might sell for as a standalone offering:

- The adjusted market assessment approach: The price customers are estimated to be willing to pay for those goods/services.
- The cost plus a margin approach: The expected costs of satisfying performance obligation plus an appropriate margin for each good or service.
- The residual approach: The difference between the bundle’s total selling price and the sum of the known standalone selling prices.

If a bundle’s selling price is less than the sum of the individual standalone price(s), the discount is allocated to the product(s) creating the discount (Deloitte, 2020)

**Question 8:** In your opinion, does the new method of revenue recognition accounting provide a clearer picture of the company’s financial position?

**Solution 8:** Students may have a variety of answers as this involves drawing an overall opinion based on answering the above questions, their readings for the course, and other sources. The FASB believes more useful information on the nature, amount, timing, and uncertainty of revenue from contracts with customers will be provided, because the guidance removes inconsistencies and weaknesses in existing revenue requirements; provides a more robust framework; improves comparability; provides more useful disclosure information; and simplifies financial statement preparation (FASB, 2021.)

**Question 9:** What are some of the implementation activities Olympic will need to plan on?

**Solution 9:** This question gets students to think about all the various planning, decision-making, and control activities related to new reporting requirements (and part of why financial statement preparers are so opposed to new regulations!) Chapter 21, “Implementation Activities,” of *A Roadmap to Applying the New Revenue Recognition Standard* (Deloitte, 2020) details a variety of considerations and provides some handy schematics (e.g. “Roadmap for Implementation” on p. 730).

Questions 10 and 11 are optional and may be completed time-permitting.

**Question 10:** Discuss and analyze four articles written by the large multinational accounting, tax and professional services firms identified in Question 1. Evaluate the strengths and weakness of the new revenue recognition pronouncement. Make sure to answer the following questions:

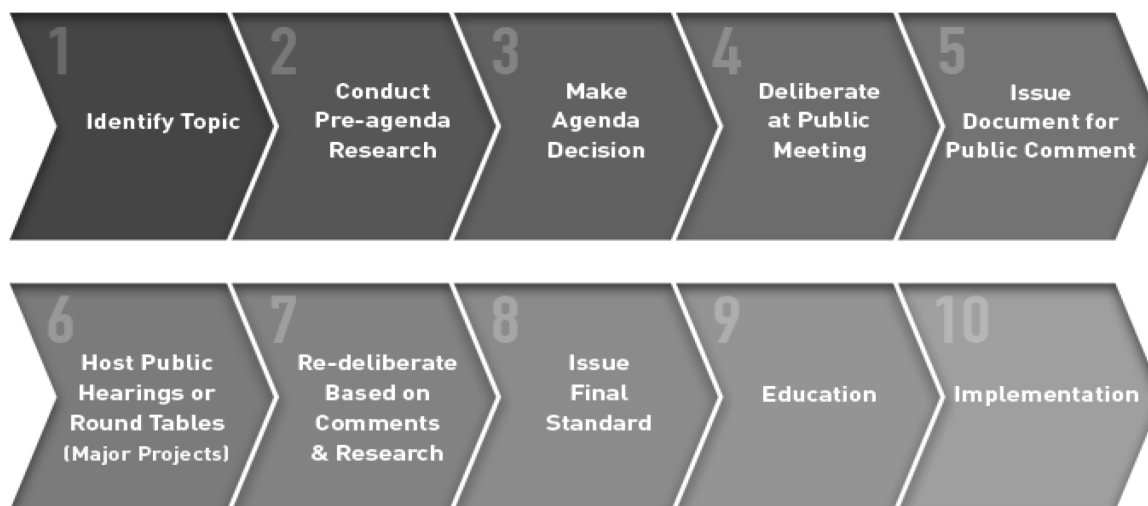
**Solution 10:** Solutions are included below each numbered item in Question 10. Answers will vary based on the resources accessed but should reflect the content and considerations outlined below. See References for useful sources if additional detail is desired.

1. In what ways are the quantitative and qualitative disclosure requirements more rigorous under ASC 606?

ASC 606 includes more exacting presentation and enhanced disclosure requirements. It includes qualitative and quantitative information about contracts with customers, the significant judgments made in the recognition of revenue, as well as assets recognized from costs incurred to fulfill a contract. The expanded quantitative and qualitative disclosures under ASC 606 are detailed at ASC 606-10-50-1, and *A Roadmap to Applying the New Revenue Recognition Standard* (Deloitte, 2020.)

2. What does “due process” mean? How does the converged “Revenue from Contracts with Customers” reflect due process?

This question gets students to think about the basic structure of accounting standard setting. In the case of developing and implementing accounting standards, it means operating transparently, with public access and feedback, and a Board that is independent and not dominated by the professional accounting firms. This is thought to build confidence that all sides have been heard and that accounting pronouncements have been generated in a relatively “fair” manner (Kieso, 2019.) The Revenue Recognition standard followed the above-described due process mechanisms over an approximately two-decade period (Deloitte, 2020.)



(FASB, 2021.)

3. What types of entities will be more affected by the new revenue recognition accounting guidance? What are some of the areas that will be problematic for a sampling of, say, five of the industries (one issue per industry)?

Answers will vary. While practically all industries are affected, some of the more notable industries (and examples of industry-specific issues) are software (post-contract customer support, determining whether components are separate performance obligations, guaranteed upgrades/support), construction (customer termination rights and penalties on contract termination, variable consideration, measures of progress), aerospace and defense (contract modifications including unpriced change orders, significant financing components, US/foreign government contracts), and telecommunications (identification of separate performance obligations, portfolio accounting.) See the References section above, especially *Revenue Recognition: Understanding and Implementing the New Standard* (Flood, 2017), and the *AICPA Audit and Accounting Guide: Revenue Recognition* (AICPA, 2019.)

4. What are the similarities and differences between the new revenue recognition accounting under US GAAP, ASC 606, as opposed to IFRS 15?

See “Appendix A — Differences Between U.S. GAAP and IFRS Standards,” in *A Roadmap to Applying the New Revenue Recognition Standard*, (Deloitte, 2020, p. 751.)

**Question 11:** Working in groups or individually, identify and discuss earnings management and revenue recognition issues found in any of the following classic texts or at the SEC’s Accounting and Audit Enforcement Release web site (number 4, below.) Using the guidance from one of the large multinational audit, tax and business advisory firms, identify any aspects of ASC 606 that would enhance or detract from the earnings management and fraudulent or erroneous revenue recognition in the text or web site and related topic or case you select. Write a brief report detailing your findings.

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1. Knapp, Michael C. (2017). *Contemporary Auditing* (11th ed.). Cengage Learning, Inc.
  2. Schilit, H. M., Perler, J., & Engelhart, Y. (2018). *Financial Shenanigans: How to Detect Accounting Gimmicks and Fraud in Financial Reports* (4th ed.). McGraw-Hill.
  3. Mulford, C. W., & Comiskey, E. E. (2005). *The Financial Numbers Game: Detecting Creative Accounting Practices* (1st ed.). Wiley.
  4. U.S. Securities and Exchange Commission (2022). "Accounting and Auditing Enforcement Releases," *U.S. Securities and Exchange Commission*. Retrieved April 28<sup>th</sup>, 2022 at: <https://www.sec.gov/divisions/enforce/friactions.htm>
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**Solution 11:** Students answers will vary. Some areas that may be of interest to them are described below.

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1. Knapp, Michael C. (2017). *Contemporary Auditing* (11th ed.). Cengage Learning, Inc.

The most involved cases are the comprehensive ones. These entail various elements of revenue recognition and earnings management. However, other sections include audits of high-risk accounts, internal control issues, ethical responsibilities of accountants, ethical responsibilities of independent auditors, professional roles, professional issues, and international cases. A fascinating resource widely used in undergraduate and graduate auditing, and financial accounting courses.

2. Schilit, H. M., Perler, J., & Engelhart, Y. (2018). *Financial Shenanigans: How to Detect Accounting Gimmicks and Fraud in Financial Reports* (4th ed.). McGraw-Hill.

Schilit et al's text focuses on, among other topics, "Earnings Manipulation Shenanigans" (Part Two). "Chapter 3, Earnings Manipulation Shenanigan No. 1: Recording Revenue Too Soon" and "Chapter 4: Earnings Manipulation Shenanigan No. 2: Recording Bogus Revenue" are particularly relevant, but the entire text is a rich resource.

3. Mulford, C. W., & Comiskey, E. E. (2005). *The Financial Numbers Game: Detecting Creative Accounting Practices* (1st ed.). Wiley.

Mulford and Comiskey text is another source of insight regarding and examples of errors (unintentional) and irregularities (intentional) with regard to earnings management and fraudulent financial statement reporting. Chapters 2 through 4 and 6, "How the Game Is Played," "Earnings Management: A Closer Look," "The SEC Responds," and "Recognizing Premature or Fictitious Revenue" are particularly relevant.

4. U.S. Securities and Exchange Commission (2022). "Accounting and Auditing Enforcement Releases," U.S. Securities and Exchange Commission. Retrieved April 28<sup>th</sup>, 2022 at: <https://www.sec.gov/divisions/enforce/friactions.htm>.

Per the Center for Audit Quality, in recent years there were 140 AAERs related to financial statement fraud schemes resulting in 204 enforcement actions (Center for Audit Quality, 2021.) The ingenuity and focus demonstrated by the C-suite executives and auditors run amok is fascinating. The AAERs are listed at the SEC link above.

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## BIOGRAPHY

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# **A CASE STUDY OF ACCOUNTING STANDARDS CODIFICATION 842 LEASE ACCOUNTING**

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## **CASE DESCRIPTION**

*The inception of Accounting Standards Codification (ASC) 840 in 1977, involving the off-balance sheet treatment of most leases, resulted in decades of controversy. Recent US GAAP (Generally Accepted Accounting Principles) changes introduced significant modifications to lease accounting for public companies. The new ASC 842 rules became effective for periods beginning after December 15, 2018. The new rules require capitalization of all non-cancellable leases with terms greater than one year in duration. Liabilities created by the lease contract now become a balance sheet debt item resulting in a significant financial statement effect. Indeed, this recharacterization may produce a significant negative impact on a firm's debt ratios and covenant agreements. The combined effects of these changes may significantly affect the way entities conduct business. This case study focuses on differences in the treatment of leases under old lease accounting conventions and the new lease rules under US GAAP. The case requires students to examine the impact of these differences on financial statements and selected financial ratios. Students begin with GAAP financial statements under the old lease requirements and prepare a balance sheet and income statement and cash flow, reflecting the new lease rules. Designed for use at both the undergraduate and graduate levels, this case study may be appropriate for an Intermediate Accounting II, Accounting Theory, Financial Statement Analysis, or an International Accounting class.*

**JEL:** M40, M41, M49

**KEYWORDS:** US GAAP, Ratios, Capital Lease, Operating Lease, Financing Lease

## **INTRODUCTION**

This case study demonstrates the implications of Accounting Standards Codification (ASC) 842 on financial statements and firm's debt ratios. ACS 840 regulated accounting of leases from 1977 through 2018. ASC 842 superseded ASC 840 for financial statements fiscal periods beginning after December 15, 2018. The case study highlights accounting changes made and discusses the new lease reporting requirements. We illustrate differences between ASC842 and ASC 840 with examples. Professors of undergraduate and graduate-level courses can use this case study to facilitate student understanding of the ASC 842 pronouncement on leases.

The next part of the study discusses the literature and provides some background information on lease accounting rules. The following sections contain the case information and questions for students. The final section concludes the case study. The paper closes with some teaching notes for professors.

## **LITERATURE REVIEW AND BACKGROUND**

In 2018, the Financial Accounting Standards Board (FASB) amended FASB Accounting Standards Codification (ASC) and created Accounting Standards Update ASC 842 regarding lease accounting. This

update, along with International Financial Reporting Standards (IFRS) 16, Leases, is the result of the FASB's and the International Accounting Standards Board's (IASB's) efforts to improve financial reporting of leases (FASB Accounting Standards Update 2016).

The updates apply to financial statements prepared for fiscal years beginning after December 15, 2018 including interim periods. The update applies to public business entities, not for profit entities that are publicly traded and employee benefit plans that file financial statements with the U.S. Securities and Exchange Commission (SEC). For other entities, the new rules became effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. The FASB allows for early adoption of the changes for all entities (FASB ASC 2016\_02 Section A). The adoptions dates for private firms were subsequently pushed back to 2021 and 2022 (ASC 842 Review, 2021).

ASC 840, rules allowed reporting operating leases only in the footnotes of corporate financial statements. ASC 842 changed this provision. Specifically, ASC 842 requires businesses to recognize most leases on their balance sheet. Contracts that meet the lease definition, including operating leases, must now be recognized on balance sheets via a right-of-use (ROU) asset and a corresponding lease liability. The right-of-use asset recognizes a lessee's right to use the asset over the life of a lease. If a right-of-use asset should become impaired, the impairment is immediately recognized, thereby reducing the asset's carrying amount (FASB 2016). ASC 842 exempts the capitalization requirement only for short-term leases with lengths less than or equal to 12 months (ASC 842 Review 2018).

Another important change related to ASC 842 relates to classification of leases as Type A or Type B. The classification depends upon "level of consumption." Type A classification applies to leases where a significant amount of a leased asset's value is consumed during the lease period. Most leases other than property leases fall into this category. Type A leases generally include equipment and vehicle leases. Accounting for Type A lessees recognizes a right-of-use asset and a corresponding lease liability. The values are initially measured as the lease payment present value. The process involves unwinding the lease liability discount as interest, separately from the amortization of the right-of-use asset (Lease Query 2016).

In Type B leases, an insignificant portion of the leased asset is consumed during the lease period. Most real estate leases fit into this category. Type B lessees recognize a right-of-use asset and a lease liability initially measured as the present value of the lease payments. Rules require recognition of a single lease cost on a straight-line basis that combines unwinding the lease liability discount with amortization of the right-of-use asset (FASB 2016).

ASC 842 differs from International Financial Reporting Standards (IFRS) 16 in certain aspects of lessee accounting. ASC 842 distinguishes between finance and operating leases in the financial statements, whereas IFRS 16 requires all leases to be accounted for consistent with ASC 842 approach for financial leases (IAS, 2016). As a result, operating leases under ASC 842 are accounted for differently from IFRS. This results in differences between the statement of comprehensive income and the statement of cash flows. This case explores only the impact of ASC 842. Future case studies may explore and report the differences between the IFRS 16 and ASC 842.

## CASE INFORMATION

Peter Telecom Corporation, a publically traded NASDAQ company (symbol PTCOM), services and repairs telecommunication equipment. The company is based in Jacksonville, Florida, and become public on January 1, 2015. Peter Telecom Corp. operates in the United States and Latin American countries. Its stock sells for 35 US Dollars per share, and its 2015, 52-week price range was \$29.50 to \$37.15.

Their financial statements, presented here for the year ending December 31, 2015, were prepared using ASC 840, US GAAP rules. Given a high need for capital investment in the industry, the controller wants to identify the impact ASC 842 lease rules on the financial statements. Specifically, the controller wants to see the impact of these changes on the balance sheet, income statement, cash flow statement, and the various debt-related financial ratios. Table 1, 2 and 3 show the balance sheet, income statement and statement of cash flows under ASC 840 lease rules for the year ended December 31, 2015. Table 4 shows excerpts from relevant notes to the financial statements.

Table 1: Balance Sheet as of December 31, 2015

<b>Peter Telecom Corporation</b>		
<b>Balance Sheet</b>		
<b>December 31, 2015</b>		
<u>ASSETS</u>	\$	\$
<b>Current Assets:</b>		
Cash & Cash Equivalents	79,339	
Contract Receivable	116,236	
<b>Total current assets</b>		195,575
Property, Plant & Equipment	151,401	
Less: Accumulated Depreciation	<u>15,141</u>	
		136,260
<b>Total Assets</b>		<u>331,835</u>
<b><u>LIABILITIES AND SHAREHOLDER'S EQUITY</u></b>		
Accounts Payable	70,177	
Accrued Expenses	49,181	
Income Taxes Payable	100	
Auto Loan Payable	19,962	
Loans from Shareholders	26,188	
<b>Total Current Liabilities</b>		165,608
Auto loan payable		97,948
<b>Total Liabilities</b>		263,556
<b>Stockholders' Equity</b>		
Common Stock	50,000	
Retained Earnings	18,279	
<b>Total Stockholders' Equity</b>		<u>68,279</u>
<b>Total Liabilities and Stockholders' Equity</b>		<u>331,835</u>

*This table shows the balance sheet for Peter Telecom Corporation as of December 31, 2015. The statements were prepared using ASC 840 accounting conventions for leases.*

Table 2: Statement of Income and Retained Earnings for Year Ended December 31, 2015

<b>Peter Telecom Corporation</b>		
<b>Statement of Income and Retained Earnings</b>		
<b>For Year Ended December 31, 2015</b>		
	\$	\$
Contract Revenues Earned	667,604	
Cost of Revenues Earned	<u>499,351</u>	
<b>Gross Earnings</b>		168,253
General and Administrative Expenses		<u>149,874</u>
Income (Loss) Before Tax		18,379
Income Tax Expense		100
<b>Net Income</b>		<u>18,279</u>
Retained Earnings, Beginning Period		0
Retained Earnings, End of Period		<u>18,279</u>

*This table shows the Statement of Income and Retained Earnings for the Year Ended December 31, 2015. Statements were prepared using ASC 840 accounting conventions for leases.*

Table 3: Statement of Cash Flows for Year Ended December 31, 2015

<b>Peter Telecom Corporation</b>		
<b>Statement of Cash Flows</b>		
<b>For Year Ended December 31, 2015</b>		
	\$US	\$US
Cash Flow from operating activities		
Net Income (loss)		18,279
Adjustments to reconcile net income		
To net cash used in operating activities:		
Depreciation	15,141	
Changes in assets (Increase) Decrease in:		
Contracts Receivables	(116,236)	
Changes in Liabilities Increase (Decrease) in:		
Accounts Payable	70,177	
Accrued Expense and taxes payable	49,281	
		<u>18,363</u>
<b>Net Cash flow from operating activities</b>		<b>36,642</b>
<b>Net cash flow from investing activities</b>		
Purchase of Property, Plant & Equipment		(151,401)
<b>Cash from financing activities</b>		
Shareholder Investment	50,000	
Increase in Auto Loan Payable	117,910	
Increase in Shareholders' Loan Payable	26,188	
<b>Net cash from financing activities</b>		<b>194,098</b>
<b>Net Increase (decrease) in cash or cash equivalents</b>		<b>79,339</b>
Beginning Cash and Cash Equivalents Balance		0
Ending Cash and Cash Equivalents Balance		<u>79,339</u>

*This table shows the Statement of Cash Flows for the Year Ended December 31, 2015. Statements were prepared using ASC 840 accounting conventions for leases.*

Table 4: Excerpts from Notes to the Financial Statements for Peter Telecom Corporation

<b>Additional Information Relating to Lease Agreements</b>
1. On January 1, 2015, Peter Telecom Corp. signed a 3-year non-cancellable lease term on a building where they maintain their business operations. The rental payment per month is \$3,000. There are no renew options. The estimated useful life of the building is 50 years, and its fair market value is \$1,000,000.
2. On January 1, 2015, Peter Telecom Corp. signed a 4-year non-cancellable lease for the use of a heavy-duty truck. The lease payment is \$616.67 per month. The useful life of the truck is six years, and the fair value of the truck on January 1, 2015, is \$30,500. Peter Telecom knows the implicit rate of this lease. The lessor designed this truck specifically for Peter Telecom's use, and the lessor has no alternate use for this truck after the lease term.
3. The company's incremental borrowing rate is 6.25% (they obtained a short-term loan in 2015 at this rate), and the risk-free rate of return is 2.5%. The implicit rate on the truck is 6.15%, which is known to the lessee.
4. There is no transfer of title or bargain purchase on the lease of the truck.
5. All lease payments listed above are made at the beginning of the period/month.

*This table shows excerpts from the Notes to the Financial Statements for Peter Telecom Corporation. The excerpts relate to lease financing activities.*

## QUESTIONS

1. Differentiate between an operating lease and a capital/financial lease for financial reporting purposes.
2. Under ASC 840 US GAAP, have the leases above been treated as a capital lease/financial lease or an operating lease?
3. Under the new ASC 842 US GAAP rules, should this lease be classified as an operating or a financial lease?

4. Prepare an income statement under the new ASC 842 US GAAP lease rules for the year ended December 31, 2015.
5. Prepare a balance sheet under the new ASC 842 US GAAP lease rules as of December 31, 2015.
6. Prepare a Statement of Cash Flows under the new ASC 842 US GAAP lease rules for the year ended December 31, 2015.
7. Compute the following ratios for 2015, under both the old ASC 840 US GAAP reporting lease rules and the new ASC 842 US GAAP reporting lease rules:
  - a. Current Ratio
  - b. Quick Ratio
  - c. Times Interest Earned
  - d. Debt Ratio
  - e. Debt to Shareholders' Equity Ratio
8. What conclusions can we note based on the findings of the ratios calculated above?
9. Compare ASC 840 and 842 Standards from a lessee point of view.
10. What recommendations can you make to ease the reporting effects of the new lease rule?
11. Write a brief note on the research findings related to the implementation of ASC 842. (This question is intended for graduate program courses)

# A CASE STUDY OF ACCOUNTING STANDARDS CODIFICATION 842 LEASE ACCOUNTING TEACHING NOTES

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## CASE DESCRIPTION

*The inception of Accounting Standards Codification (ASC) 840 in 1977, involving the off-balance sheet treatment of most leases, resulted in decades of controversy. Recent US GAAP (Generally Accepted Accounting Principles) changes introduced significant modifications to lease accounting for public companies. The new ASC 842 rules became effective for periods beginning after December 15, 2018. The new rules require capitalization of all non-cancellable leases with terms greater than one year in duration. Liabilities created by the lease contract now become a balance sheet debt item resulting in a significant financial statement effect. Indeed, this recharacterization may produce a significant negative impact on a firm's debt ratios and covenant agreements. The combined effects of these changes may significantly affect the way entities conduct business. This case study focuses on differences in the treatment of leases under old lease accounting conventions and the new lease rules under US GAAP. The case requires students to examine the impact of these differences on financial statements and selected financial ratios. Students begin with GAAP financial statements under the old lease requirements and prepare a balance sheet, income statement and cash flow statement, reflecting the new lease rules. Designed for use at both the undergraduate and graduate levels, this case study may be appropriate for an Intermediate Accounting II, Accounting Theory, Financial Statement Analysis, or an International Accounting class.*

## QUESTIONS

**Question 1:** Differentiate between an operating lease and a capital/financial lease for financial reporting purposes.

**Solution 1:** Operating lease payments are treated as a rent expense. Operating leases constitute off-balance sheet debt that does not affect the firm's debt ratios. Operating lease payments are reported as an expense on the income statement. Capital leases involve creation of an asset and liability on the balance sheet. Two expenses related to the lease are recognized on the income statement 1.) Depreciation/Amortization expense and 2.) Interest expense. Operating leases are generally preferred and provide significant advantages to companies.

**Question 2:** Under ASC 840 US GAAP, have the two leases above been treated as a capital lease/financial lease or an operating lease?

**Solution 2:** Under US GAAP-ASC 840, if the lessee is long-term (having a term longer than one year), is non-cancelable, and meets at least one of the four tests, the lease is treated as a capital lease; otherwise, it is an operating lease. Table 5 shows the appropriate lease evaluation.

Table 5: Tests to Determine Lease Classification under ASC 840

Test	Lease 1: Building Rental	Lease 2: Truck Rental
Test 1: Transfer of Ownership Test: If at the end of the lease term, ownership transfers to the lessee, then this test is satisfied.	No	No
Test 2: Bargain Purchase Option: If the lessee has the option to purchase the lease at a bargain purchase price, then this test is satisfied.	No	No
Test 3: Economic Life Test: If the lease term is equal to or greater than 75% of the economic life of the asset, it is a capital lease.	No, as $3/50=6\%$ .	No, as $4/6$ is 66.67%.
Test 4: Economic Recovery Test: If the present value of the minimum lease payments is 90 percent or higher of the fair market value of the asset, then it is a capital lease.	No, as the present value of 3,000 over 36 months at the 6.25% annual incremental borrowing interest rate with payments made at the beginning of the month equals \$99,586. This amount represents 9.5 percent of the \$1,000,000 fair value of the building.	No, as the present value of \$616.67 payments for 48 months at the implicit rate of 6.15% per annum, as it is known to the lessee with payments made at the beginning of the month equals \$27,096. This amount represents 88.83% of the \$30,500 fair value of the truck.

This table shows the four tests used to evaluate leases for classification as Operating or Capital. Both leases classify as Operating Leases.

The results indicate that both leases fail all four tests. Both leases classify as operating leases and therefore do not require balance sheet entries. Rather, the combined effect of the leases should be reported on the income statement as a rent expense of US\$43,400. The careful student will note that capital lease requirements were barely missed.

**Question 3:** Under the new ASC 842 US GAAP rules, should this lease be classified as an operating or a financial lease?

**Solution 3:** Under ASC 842 US GAAP rules, leases are classified as 1.) Type A, Financial Leases, 2.) Type B, Operating Leases or 3.) Short Term Leases. Professors should note that some students might use online lease classification tools such as the tool provided by LeaseAccounting.com to assist in making the classification (www.leaseaccounting.com, 2020).

All long-term, greater than one-year, non-cancellable leases must be capitalized and reflected on the Balance Sheet as a right-of-use (ROU) asset with a corresponding lease liability. The ROU asset is reflected in a separate part of the Property, Plant, and Equipment section of the Balance Sheet and is reduced by an Accumulated Amortization balance. ROU leases are termed as either Type A, financial or Type B operating leases. The importance of this classification lies in the income and cash flow statement treatment.

ASC 842 requires that Type A and B leases be reflected as a separate component of the Property, Plant, and Equipment section of the Balance Sheet. Each lease type is presented separately less its accumulated amortization amount. On the liability side, Type A and B leases should be presented separately in the current liabilities and long-term liabilities sections of the Balance Sheet.

For Type A leases, the lease payment incorporates an interest and principal component. The expense equals interest and amortization. The cash flow includes operating cash payments for the interest and financing cash flow for the principal payment amount. The total expense decreases each year because of a declining outstanding principal/liability balance. Hence, a Type A lease is sometimes termed an accelerated payment lease.

For Type B leases, the full amount of the lease payment is a rent expense that reflects as a cash outflow from operating activities. The rent expense occurs in equal amounts each year during the lease term. As a

result, sometimes operating leases are termed straight line leases. The rent expense equals the interest expense, plus amortization expense, which equals the annual lease expense less the interest expense. For short-term leases of one year or less firms may either capitalize the leases or treat them as an off-balance sheet transaction whereby the rent payment represents a rent expense.

ASC 842 requires entities to classify each lease (as either a Type A, B, or Short-term) at the commencement date. Special considerations affect renewal options. If it is probable, at the commencement date, that the lease will be renewed, the additional renewal provisions become part of the lease terms. Commencement date determinations are permanent. With few exceptions, the lease may not be reassessed after the commencement date.

We continue by identifying the requirements for Type A, Type B, and short-term leases. Type A leases, also referred to as Financial leases, occur when the lessee expects to consume a significant part of the economic benefits of the leased asset during the lease period. To qualify as a Type A lease, the contract must be long-term, which is defined as a non-cancellable lease for more than one year, and, meet one or more of the five tests as shown in Table 6.

Table 6: Tests for Lease Type under ASC 842

Test	Lease 1: Building Rental	Lease 2: Truck Rental
Test 1: Transfer of Ownership Test: If at the end of the lease term ownership transfers to the lessee, then this test is satisfied.	No	No
Test 2: Bargain Purchase Option: If the lessee has the option to purchase the lease at a bargain purchase price, which the lessee is reasonably sure to exercise, then this test is satisfied.	No	No
Test 3: Economic Life Test: The lease term is for the significant part of the remaining economic life of the leased asset. This test is satisfied if the lease term is equal to or greater than 75% of the economic life of the asset.	3/50=6% less than 75% No	4/6=66.67%. less than 75% No
Test 4: Economic Recovery Test: The present value of the sum of the lease payments and any residual value guaranteed by the lessee equals or exceed substantially all of the fair value of the underlying asset. This test is met if the present value of the minimum lease payments is 90 percent or higher of the fair market value of the asset. ASC 842 is silent as to which interest rate should be used in the present value calculation. The implicit rate of the lease or the lessee's incremental borrowing rate may be used for publicly traded companies. For non-public companies, ASC 842 allows for the use of a risk-free interest rate, such as the use of a US Treasury Bill, Note or Bond rate.	9.5%. See Table 5 Less than 90% No	88.83%, See Table 5. Less than 90% No
Test 5: Alternative use to lessor: If the leased asset is of such a specialized nature and is not expected to have any alternative use to the lessor at the end of the lease term, then it is classified as a Type A, financial lease. (As an example, if the property is so specialized and there is no resale value for this asset after the lease term, there is no alternative use for this asset).	No	Yes per facts in Table 4 (part 2)

Note that if there exist lease renewal options and it is reasonably certain the lessee will exercise the options, the renewal period is added to the lease term for the 2nd test and to the present value payment total for the 4th test. Thus, a one-year lease with a two-year renewal option which the lessee is reasonably sure to exercise will not exempt balance sheet reporting.

Lease 1, the main office lease, classifies as a Type B, Operating Lease. Table 7 shows calculations required to properly account for the lease. The rent payment on the main office equals \$3,000 per month for three years, 36-month payments made at the beginning of each month, which results in a Type B ROU asset and lease liability at inception for an amount of \$99,586. The calculations used a 6.25% incremental borrowing rate.



Lease 2, the truck lease classifies as a Type A, Financing Lease. The payment equal \$616.67 per month for four years, 48 months with payments made at the beginning of the month. At the implicit rate of 6.15%, the lease results in a present value of \$27,096, which is below the 90% threshold of the financing lease requirement of \$27,450. However, the fifth test is met in that the lessor has no alternate use for this asset after the lease term, thereby making this a Type A lease that results in a Type A ROU asset and lease liability at an inception amount of \$27,096.

Examining the Office Property lease we note the following: The lease is an Operating Lease so the straight-line method will be utilized. The lease payment equals US\$36,000 per year (\$3,000\*12). The Lease liability on January 1, 2015 equals \$99,586. The end-of-year lease liability equals \$68,589, calculated as \$3,000 payments for 24 months at 6.25% interest. The change in lease liability, the amortization amount, equals \$30,997 (\$99,586 – \$68,589). The interest expense equals the total lease payment less the change in lease liability as follows: \$36,000 - \$30,997 = \$5,003. Finally, the Long-term liability at the end of the year equals \$32,658 (calculations shown below in Table 7)

Table 7: Lease Calculations

<b>Panel A: Office Property-Type B Lease-Operating Lease Using the Straight Line Method</b>	
Lease liability at the beginning of the year, 1/1/2015	\$99,586
Lease liability end of year, 12/31/2015 = 68,589 =3,000 payment, 24 months at 6.25%	\$68,589 (\$3,000 payments made at beginning of period for 24 months at 6.25 percent annual interest rate)
Payment of Lease Liability	\$30,997 (\$99,586 - \$68,589)
Lease expense is 36,000 (3000*12).	\$36,000 (\$3,000 payments for 12 months)
Interest expense=amount paid less principal amount paid	\$5,003 (\$36,000 - \$30,997)
Amortization	\$30,997
Current Lease liability 12/31/15	\$35,931 (\$3,000 payments made at beginning of period for 12 months at 6.25% annual interest rate)
Long-term liability 12/31/15	\$32,658 Lease liability-12/31/15 from above less current liability from above) =\$68.589-35,931= 32,658
<b>Panel B: Calculation Notes</b>	
In a Type B lease, we have a rent (lease) expense for the lease payments by of use of the straight-line method for expense recognition Total lease expense –Type B lease =lease payments=3,000 times 12= 36,000. This will comprise of an interest expense amount and resulting plugged in amortization expense amount. In 2015-the lease expense is composed as follows: Interest expense= 5,003. Amortization expense=36,000 less 5,003=30,997.	
A) The result is that there will be a lease expense created by the Type B lease of 36,000 per year, which is part of operating expenses on the income statement and a cash outflow from operating activities on the statement of cash flows	
B) Note-the balance of a net ROU Type B lease equals the outstanding liability amount of a Type B lease. In this case, at 12/31/2015, the Type B lease will have the following balance sheet accounts.	
C. Asset. Right of use –Type B= Cost less Accumulated Amortization= 99,586-30,997=68,589. Lease liability-12/31/15=68,589; 35,931 current and 32,658 noncurrent.	

*This table shows calculations necessary to create the appropriate accounting entries for the office property lease.*

For the Automobile lease, a Type A lease, we use the Financial lease accelerated method. The rent expense equals the interest expense, plus amortization expense. The Amortization expense will be greater in the earlier years. The monthly lease payment equals \$616.67 implying a total lease payment for the year equaling \$7,400 (616.67 \* 12). For this lease, the Lease liability on January 1, 2015 equals US\$27,096. The end-of-year lease liability equals US\$21,161, which equals 36 months of \$616.67 per month payments at 6.15 percent. The change in lease liability during the year equals \$5,935 (\$27,096 – 21,161). The interest expense equals the total payments less the change in lease liability as follows: \$7,400 - \$5935 = \$1,465. The amortization expense equals \$6,774 calculated as the beginning lease liability divided by the term of the lease \$27,096/4. The total expense for 2015 equals the sum of the amortization and interest expenses: \$6,774 + \$1,465 = \$8,239. This amount is accelerated as it exceeds the lease payment of \$7,400.

The Balance Sheet effect of this Type A lease as of 12/31/15 is presented in Table 8. The Balance Sheet reports a current lease liability of \$6,313 and a long-term lease liability of \$14,848.

Table 8: Balance Sheet Effects of the Type A Lease

<b>Assets</b>	
Type A Lease	\$27,096
Less Accumulated Amortization	\$6,774
Net Lease	\$20,322
<b>Liabilities</b>	
Lease Liability Current	\$6,313
Lease Liability Noncurrent	\$14,848
Total Lease Liability	\$21,161

*This table shows balance sheet effects of the Type A Lease.*

*Lease liability-1/1/2015 = 27,096.*

*Lease liability end of year = 21,161=616.67 payment, 36 months at 6.15%*

*Difference=payment of lease liability= 5,935*

*Interest expense=amount paid less principal amount paid 616.67 times 12=7,400-5,935=1,465*

*Amortization expense=27,096/4 years=6,774*

*Total expense- Year 2015 = 6,774 plus 1,465= 8,239. Accelerated, as it more than the lease payment of 7,400 (616.67 times 12).*

*Lease liability –current at year ended 12/31/2015=6,313*

*Long term liability year ended 12/31/15=14,848*

On the Income Statement, we have; interest expense plus amortization expense. This equal 1,465 and \$6,774 respectively totaling 8,239. The amount is greater than the lease payment of 7,400, hence the accelerated method, which will be reversed in the later years of the lease term.

C)On the cash flow statement, we have a cash outflow from operating activities for the interest expense of 1,465 and cash outflow for the payment of the lease liability of 5,935= 7,400.

The effects above are reflected in our created Balance Sheet, Income Statement, and Statement of Cash Flows.

Total lease payments 2015=Type A 7,400 plus Type B 36,000= 43,400.

**Question 4:** Prepare an income statement under the new ASC 842 US GAAP lease rules for the year ended December 31, 2015.

**Solution 4:** Table 9 shows the Statement of Income and Retained Earnings for the year ended December 31, 2015.

Table 9: Income Statement for Peter Telecom Corporation for the Year Ended December 31, 2015 under ACS 842 Lease Accounting Rules

Peter Telecom Corporation Statement of Income and Retained earnings For the Year Ended December 31, 2015		
	\$	\$
Contract Revenues Earned	667,604	
Cost of Revenues Earned	<u>499,351</u>	
<b>Gross Earnings</b>		168,253
General and Administrative Expenses (See note 1)		<u>149,248</u>
Income (Loss) Before Tax		19,005
Interest expense (See note 2)		1,465
Income before Taxes		17,540
Income Tax Expense		100
Net Income		<u>17,440</u>
Retained Earnings, Beginning Period		0
Retained Earnings, End of Period (See note 3)		<u>17,440</u>

*This table shows the Statement of Income and Retained Earnings for Peter Telecom Corporation using the ASC 842 Lease Accounting rules. Notes: 1.) Under previous ASC 840 rules, General and Administrative expenses total \$149,874, which includes Lease/rent expense of \$43,400. Under the new ASC 842 lease rules, Lease/rent expense equals \$36,000 plus amortization expense of \$6,774, totaling \$42,774. This results in a decrease in General and Administrative expenses by \$626, to \$149,248. 2.) Interest Expense equals \$1,465 under ASC 842 rules. There was no interest expense under the earlier ASC 840 rules. 3.) Total lease related expenses under the new ASC 842 rules equals 44,239 (42,774+1,465) which is \$839 (44,239-43,400) more than under ASC 840 rules. The combined result is a decrease in net income under ASC 842 when compared to ASC 840 in an amount of \$839, (from 18,279 to 17,440) . The difference occurs because of the accelerated expense in a Type A lease. This net income change will be reversed in the later years of the lease term.*

**Question 5:** Prepare a balance sheet under the new ASC 842 US GAAP lease rules as of December 31, 2015

**Solution 5:** Table 10 shows the Balance sheet when ASC 842 ruled apply.

Table 10: Peter Telecom Corporation Balance Sheet for Year Ending December 31, 2015 under ASC 842 Lease Rules

<b>Peter Telecom Corporation Balance Sheet December 31, 2015</b>		
<b>Assets</b>	<b>\$</b>	<b>\$</b>
<b>Current Assets:</b>		
Cash & Cash Equivalents	79,339	
Contract Receivable	116,236	
Total current assets		195,575
Property, Plant & Equipment	151,401	
Less: Accumulated Depreciation	<u>(15,141)</u>	
		136,260
Type A Lease	27,096	
Less: Accumulated Depreciation	(6774)	
		20,322
Type B Lease	99,586	
Less: Accumulated Depreciation	(30,997)	
		68,589
<b>Total Assets</b>		<b><u>420,746</u></b>
<b><u>LIABILITIES AND SHAREHOLDER'S EQUITY</u></b>		
Accounts Payable	70,177	
Accrued Expenses	49,181	
Income Taxes Payable	100	
Type A lease liability	6,313	
Type B lease liability	35,931	
Auto Loan Payable	19,962	
Loans from Shareholders	26,188	
<b>Total Current Liabilities</b>		<b>207,852</b>
<b>Long-Term Liabilities</b>		
Type A lease liability	14,848	
Type B lease liability	32,658	
Auto loan payable	97,948	
		145,454
<b>Total Liabilities</b>		<b>353,306</b>
<b>Stockholders' Equity</b>		
Common Stock	50,000	
Retained Earnings	17,440	
<b>Total Stockholders' Equity</b>		<b>67,440</b>
<b>Total Liabilities and Stockholders' Equity</b>		<b><u>420,746</u></b>

*This table shows the Balance Sheet for Peter Telecom Corporation for December 31, 2015. Statements were prepared under ASC 842 Lease Accounting Rules.*

**Question 6:** Prepare a Statement of Cash Flows under the new ASC 842 US GAAP lease rules for the year ended December 31, 2015

**Solution 6:** Table 11 shows the Statement of Cash Flows for Peter Telecom for the year ended December 31, 2015 under ASC 842 Lease Accounting rules.

Table 11: Statement of Cash Flows for Year Ended December 31, 2015 Under ASC 842 Rules

<b>Peter Telecom Corporation</b>		
<b>Statement of Cash Flows</b>		
<b>For the Year Ended December 31, 2015</b>		
	\$	\$
Cash Flow from operating activities		
Net Income (loss)		17,881
Adjustments to reconcile net income To net cash used in operating activities:		
Depreciation	52,912	
Type B Lease liability payment (see note)	(30,997)	
Changes in assets (Increase) Decrease in:		
Contracts Receivables	(116,236)	
Changes in Liabilities Increase (Decrease) in:		
Accounts Payable	70,177	
Accrued Expense and taxes payable	49,281	
		<u>25,137</u>
<b>Net Cash flow from operating activities</b>		<b>43,018</b>
<b>Net cash flow from investing activities</b>		
Purchase of Property, Plant & Equipment		(278,083)
<b>Cash from financing activities</b>		
Increase in lease liabilities (see note)	120,306	
Shareholder Investment	50,000	
Increase in Auto Loan Payable	117,910	
Increase in Shareholders' Loan Payable	26,188	
<b>Net cash from financing activities</b>		<b>314,404</b>
<b>Net Increase (decrease) in cash or cash equivalents</b>		<b>79,339</b>
Beginning Cash and Cash Equivalents Balance		0
<b>Ending Cash and Cash Equivalents Balance</b>		<b>79,339</b>

*This table shows the Statement of Cash Flows for Peter Telecom Corporation for Year Ended December 31, 2015 under ASC 842 Lease Accounting rules. Note the reduction in lease liability under a Type B lease is part of Cash outflows from Operating Activities, whereas, for Type A leases, the reduction in lease liability is a cash outflow from financing activities.*

**Question 7:** Compute the following ratios for 2015, under both the current US GAAP reporting lease rules and the new US GAAP REPORTING lease rules:

- a. Current Ratio
- b. Quick Ratio
- c. Times Interest Earned
- d. Debt Ratio
- e. Debt to Shareholders' Equity Ratio

**Solution 7:** Table 12 reports the completed ratio analysis.

Table 12: Ratio Analysis under both ASC 840 and ASC 842 Lease Accounting Rules

Ratio	ASC 840 Rules	ASC 842 Rules
Current Ratio	1.18	0.94
Quick Ratio	1.18	0.94
Times Interest Earned Ratio	No interest	12.97
Debt Ratio	79%	84%
Debt to Shareholders' Equity Ratio	3.85	5.24

*This table show ratio analysis for Peter Telecom Corporation under ASC 840 and ASC 842 Lease Accounting rules.*

**Question 8:** What conclusions can you state based on your findings of the ratios calculated above?

**Solution 8:** The new lease rules will make it more difficult the firm to borrow money. It will also be costlier to borrow as the key debt ratios will be weaker. The current ratio under ASC 842 is less than 1, indicating a liquidity problem for Peter Telecom. In addition, debt ratios deteriorate under ASC 842 as Peter Telecom now has an interest expense and higher debt levels.

**Question 9:** Compare ASC 840 and 842 standards from a lessee point of view.

**Solution 9:** Table 13 compares the characteristics of ASC 840 and ASC 842.

Table 13: Comparison of ASC 840 and ASC 842

	Title	ASC 840	ASC 842
1	<b>Financial lease</b>	Four tests	Five tests
2	<b>Operating lease (Balance sheet)</b>	Only financial leases are reported and recorded on the companies' balance sheet.	Both financial and operating leases are reported and recorded in the balance sheet. They are shown as an asset and also as a lease liability.
3	<b>Operating lease (Income statement)</b>	Financial leases show interest and amortization in the income statement separately. Operating leases show only lease expenses.	For financial leases interest and amortization of the lease are presented separately on the income statement. However, for operating leases, the interest and amortization of the lease are combined into one single item and shown as lease expenses (straight-line expense).

**Question 10:** What recommendations can we make to ease the reporting effects of the new lease rules?

**Solution 10:** ASC will negatively affect all US companies that utilize leases. Students might make various recommendations including the following to help reduce the effects of ASC 842.

- a. Short term leases are recommended, if applicable. Short term leases avoid balance sheet reporting requirements.
- b. Companies should treat all short-term leases as rental expenses, and consequently, keep these transactions off the balance sheet.
- c. In the case of Type A leases, the better choice is to purchase the asset rather than lease. Buying will be less costly as (a) the interest rate is lower, (b) it is possible to gain a tax advantage given accelerated tax depreciation under MACRS, and (c) the possibility of obtaining an immediate tax advantage by expensing 179 assets (personal property), if available.

- d. For Type B leases, shorter lease terms will result in a lower balance sheet valuation. As an example, two 5-year leases are preferable to a single ten-year lease, as the liability reporting amount is cut in half.
- e. Many smaller companies lease their offices from related shareholder owners. If so, a one-year lease may be utilized. Note however that the rental payments must be at arms-length and the lease should not include renewal options.
- f. Users may select the implicit incremental or risk-free rate of interest to capitalize the lease. We recommend avoiding use of the risk-free rate to capitalize the leased asset. The risk-free rate will always be lower than the implicit incremental rate and thus result in a higher liability.
- g. Firms might explicitly note to potential lenders the impact of ASC 842 on their financial statements. Perhaps a note to the financial statements indicating these effects would be beneficial until such time as lenders become well acquainted with the new rules.

**Question 11:** Write a brief note on the research findings on the implementation of ASC 842.

**Solution 11:** Students should select some peer-reviewed journal articles related to ASC 840 and ASC 842. For example, the 2012 Hales and Wilkes paper titled “Accounting for Lease Renewal Options: The Informational Effects of Unit of Account Choices” by discusses the impact of lease standard ASC 840 and states that proposed treatment of renewal options has a negative effect on lenders’ willingness to lend to a firm with renewal options.

## CONCLUSION

This case study examined the financial implications of the new lease rules ASC 842 under US GAAP. The paper compares previous ASC 840 lease rules with the new ASC 842 lease rules and examined its impact on financial ratios, borrowing capacity, and covenant agreements. The new lease rules became effective for periods after 2019. The results here indicate ASC 842 will negatively affect US companies. Students recommend actions that US companies may take to help ease the burden of the new lease requirements. Future research might study the effects of new IFRS rules on non-US GAAP reporting companies worldwide.

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# **AN OVERVIEW ON THE RELATIONSHIP BETWEEN FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH**

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## **ABSTRACT**

*Identifying the Financial Development (FD) and Economic Growth (EG) nexus has received considerable attention in both theoretical and empirical literature for many years. Empirically, many scholars argue financial sector plays a vital role in an economy and consider as one of the significant macroeconomic variables which decide the direction of the economic development of a country. Theoretically, the FD leads to identifying better investment opportunities, boosts innovation, enhances the efficiency of capital markets, and improves the risk-taking capacity of investors that eventually directing to a more efficient allocation of resources to the real sector. However, the findings in previous scholarly works are vague and inconclusive. Therefore, this study attempts to do an in-depth analysis of key theories, concepts, and the methodological limitations of the previous studies to measure the validity of FD and EG nexus from an empirical and theoretical perspective. The results of this paper enlighten the new research pathway and direct the policymakers to architect the country's fiscal policies and development strategies to achieve sustainable economic development goals.*

**JEL:** B26, B41

**KEYWORDS:** Economic Growth, Financial Development, Asian Region

## **INTRODUCTION**

Examining the relationship between Financial Development (FD) and Economic Growth (EG) has obtained substantial attention in both theoretical and empirical literature. Both finance literature and theoretical reasoning argue that FD and EG should have a strong relationship. Because, a well-functioning financial sector determines the direction of investments, minimizes the production cost, converts savings to real assets, motivates innovations, improves the efficiency of capital markets, and encourages the investors to take a risk for better returns that finally directs the efficient allocation of resources from excess to the deficit sectors as well as finance sector to real sector. That results, in the gross domestic product of the country, gets increases due to the development in the real sector and the improvement in the productivity of the country. Increasing in GDP leads to a higher per capita income and then the country can achieve sustainable economic growth (King and Levine, 1993). Endogenous growth theory confirms that the main drivers of economic growth are the internal forces of the economy named; innovations, knowledge, and improvement of human capital. Therefore, availability of financial information at a lower cost due to a high standard financial system, productive labor force due to improvement in human capital, and high production quality resulted in knowledge and skill development leading to boost up the Gross Domestic Production of a country. Faster technological progress in the

financial sector, the inaugural of financial institutions, the establishment of the legal and regulatory framework, innovations in financial products, improvement in financial markets, development in financial services make a positive influence over the financial system development. Instead, having an advanced financial system makes it easy for investments and facilitates the investors to assess their risk in comparison to the return of investments. Comfortability in investments makes efficient allocation of resources which causes rapid improvement in the human and physical capital of the country (Comin and Nanda, 2019). Hence, the developed financial system is so important for a country and considered as the lifeblood for economic development. Therefore, theory suggests that FD and EG should have a positive correlation and FD is one of the vital factors for the EG.

Therefore, this study attempts to review the theoretical and empirical works to find out does FD and EG show a positive correlation? Is FD one of the key economic factors for EG?

The remainder of this paper is structured as follows. Section 2 is devoted to discussing the problem and issues followed by a theoretical review. Section 3 exposes the discussion in terms of theoretical perspective and empirical perspective. Section 4 presents the path forward with a conclusion.

### Problem and Issues

Reviewing literature can be run through three key areas; first, examining the relationship, second causality among FD and EG, and the third methodology used in previous pieces of research works. To begin with, many scholars aligning to the theory, have provided ample pieces of evidence to confirm FD lubricates the mobilizing the savings throughout the economy and improve the country production. They argue that development in the financial system affects the improvement of capital allocation among economic sectors. On the other hand, technological advancements in the financial system reduce the information obtaining cost with transaction cost, boost up domestic savings and investments, which energize the economic growth (Puatwoe and Piabuo, 2017, Tursoy and Faisal, 2018, Sharma and Kautish, 2020). Therefore, previous pieces of scholarly works demand a positive relationship and clear causality effect between FD and EG. However, there are many incongruities in empirical literature about the type of relationship and the type of causality effect between FD and EG. While, one line of scholars claims that, FD and EG associate positively with each other showing that financial development forces the better allocation of resources to the real sector and improves the productivity of economic activities (Pradhan et al., 2017, Wang, 2019), others argue the FD and EG having a negative correlation. They state overemphasis on financial development misleads the flow of resources in an economy. Furthermore, experiencing a poor regulatory environment leads to financial instability and results in a negative influence on economic growth (Demetriades and Rousseau, 2016, Naveed and Mahmood, 2019, Siddiquee and Rahman, 2020). Meanwhile, researchers argue that having too much financial development leads to drawing the human capital away from the real sector and causes the general economy more susceptible to economic busts (Cecchetti and Kharroubi, 2012, Law and Singh, 2014). Further, some scholars confirmed mixed results showing that in the short run there is a negative nexus between FD and EG but convert into a positive relationship in long run (Naveed and Mahmood, 2019; Qamruzzaman and Jianguo, 2018).

Apart from positive, negative, and mixed relationships, some studies have proven that FD and EG nexus is depending on the country's per capita income. When a country's per capita income goes below a certain level called threshold level (approximately US Dollars 852), in such countries FD and EG show a negative relationship or no relationship (Cecchetti and Kharroubi, 2012, Arcand et al., 2015, Ruiz, 2018, Asteriou and Spanos, 2019). However, when GDP goes above the threshold, financial development becomes a significant factor for economic development (Rioja and Valev, 2014, Menyah et al., Wolde-Rufael, 2014). Furthermore, literature shows that there is no exact agreement between researchers on the linearity between FD and EG. While some academics argue that there is a linear affiliation between FD and EG, others say there is a nonlinear association between FD and EG. The main reason they pointed out for the nonlinearity

is the differences in macro-economic variables and the country-specific factors like size of the country, political stability, economic stability in both country and the world, as well as the per capita income level of such countries (Benzur et al., 2019, Doumbia, 2016, Rioja and Valve, 2014).

Second, there is no ambiguity among scholars on the type of causality effect is there in between FD and EG. So, there is no uniform conclusion among the scholars either financial development leads to economic growth or economic development drives financial development. Therefore, one school of scholar debate that there is a unidirectional relationship and it runs from FD to EG (Bist and Bista, 2018). However, others suggest there is a bidirectional correlation (Olayungbo and Quadri, 2019, Qamruzzaman and Jianguo, 2018). Third, most of the previous studies suffer from methodological limitations. Though many studies have commonly used either time-series or cross-sectional data analysis tools, both of those techniques have many inherent statistical limitations. For instance, although many studies occupied stationarity and cointegration as tools to analyze the effect, those are highly sensitive to sample size and ignore the effect of potential structural breaks, and have not considered the time variances and cross-sectional variances in data sets that make a significant influence to the analysis results (Qamruzzaman and Jianguo, 2018). Having considered these points, this paper focuses to carry out a critical evaluation of previous literature and analyze the pluses and the drawbacks to enlighten the pathway to future studies. Therefore, this study focuses to achieve two main objectives; first; to review the previous works and identify the anomalies to the theory. Second; to analyze the methodological limitations of previous studies. Therefore, this study creates a novel pathway to study the relationship between FD and EG.

## THEORETICAL REVIEW

### Classical Growth Theories

Finance is the blood of any organization same as the economy of a country because having sufficient funds for production is a key factor of any economy. The main factors of production are capital and labor. Therefore, a well-functioning financial system makes it easier to move those factors to productive operations. There are several classical growth theories are existed in finance and are discussed as follows;

### Supply Leading Hypothesis or Finance-Led Growth Hypothesis

This theory was introduced in 1911 by Schumpeter and he showed the development in financial services works positively to the economic growth. It highly concerns the development in the finance sector and entrepreneurship. Because development in the finance sector indicates the well-functioning of financial intermediaries which are the key actors in any economy. So, a sophisticated financial system improves the effectiveness and efficiency of capital accumulation and marginal productivity of the real sector. The main argument under this theory is economic growth is highly dependent on financial deepening or financial sector development. Further, it assumes that there is a unidirectional relationship between financial development and economic growth and having a well-developed financial system is a pre-condition for economic growth. Therefore, it reduces the transaction cost, cost of capital and minimizes the information asymmetry, and directs the excess resources to the productive sectors making the enterprises improve the product that ultimately leads to economic growth. To obtain sustainable growth, the country needs to pay attention to diversified investment opportunities. For that, there should be a strong financial system within the country.

### Demand Following Hypothesis or Growth Led Hypothesis

Growth led or demand following the growth model was introduced by Robinson in 1952. The main argument of this theory changes in the real sector affect financial development. In other words, not the financial development makes economic growth but economic growth leads to financial development

because a well-developed economy demands a better financial system to facilitate the smooth functioning of economic activities of the country and allocation of funds from excess to the deficit sectors. Therefore, the financial market is expanded and the need for a financial intermediary exists. Hence, innovations, developments in intermediary services, expansion in the banking sector, and development in the financial system are results of the development in the real sector. because when the economy-boosting up it demands a sophisticated financial system and financial innovations to facilitate the easy functioning of business operations. Therefore, the finance sector gets expanded and innovations are taking place in financial assets and liabilities, financial services and financial institutions also supportive services like finance security services and capital markets.

### Endogenous Growth Theory

The endogenous growth model was introduced in the 1980s as classical growth theory which emphasizes that economic growth arises due to the internal factors of the economy rather than external forces. It shows the link between finance, entrepreneurship, and economic growth. Endogenous growth theory explains that well developed financial system directs the investors or the entrepreneurs to make better investments decisions. If the financial institutions are performing well, they help the individual investors to assess the risk and diversify their portfolios to mitigate their risk of investment. This gives the investor confidence for investors and lowers the cost of capital. Therefore, the economy gets more and more investments and ultimately leading to economic growth.

### Cobb-Douglas Production Theory

The foundation stone to Cobb-Douglas production function was established by Professor Paul Douglas in 1948 with publishing an article "Are There Laws of Production?" in American Economic Review. He introduced this model because at that time there was no sound theory to explain the marginal productivity curve. Cobb-Douglas production theory explains the output or the production (Gross Domestic Production) of a company (same as to a country) depends on labor and capital those considered as the key factors of production. According to this theory, it indicates if an economy can well manage its capital and labor, it can achieve sustainable economic growth. Because when a country facilitates the efficient allocation of capital to the real sector through their financial system and utilizes the labor force productively, the GDP of such country increases, and the benefits are distributed among citizens.

### Solow Growth Theory or Source of Growth Model

Sources of growth model were first introduced by Solow (1957) doing a slight improvement to the Cobb-Douglas production function. The theory introduces financial development as a controlling or mediating variable to the Cobb-Douglas equation. Solow argues when there is financial development, it mediates or works as a mediator to determine how well and fast the economy gets developed. However, the key limitation of this is theory is that it cannot be used for cross-sectional data analysis because this theory is not valid when there are disparities in the total savings, population, and economic conditions of the countries.

## **DISCUSSION**

### Theoretical Review

When analyzing the classical growth theories, it is clear that there are several limitations in classical growth theories. The classical growth theories have ignored the key causative factor in modern economies, technology. When there is economic development, there is one unforgettable factor, technological advancements. Technological advancements happened in both the real sector and the finance sector. When

there is technological advancement in the real sector, the cost of production gets reduced. Moreover, when technological advancement happened in the finance sector, a smooth flow of resources to the real sector will happen. Since the technological advancements in the finance sector lubricate allocation and distribution of resources to the relevant sector at right time. The second limitation of the classical growth models is the inaccurate determination of total capital and wages. Here in classical models, it assumes that the factors of production are at a subsistence level every time but in the real world, it is not.

### Neoclassical Theory of Growth

Robert Solow and Trevor Swan introduced this theory in 1956, by explaining the causality relationship between labor, capital, and technological advancement to economic growth. They explained that with technological advancement, the fundamentals of scarce resources in an economy, labor, and capital will not be limited anymore. Because the trading capacity of the countries gets boundless and with the trade openness, countries get the privilege to do transactions with other countries and obtain labor and capital from those countries. According to this theory, trade openness influences the decision-makers or the entrepreneurs to amalgamate or acquire the foreign market and integrate their home economies with foreign economies. Then, there will be a trading boost in the import and export sector in the economy and generates the economy of scale and specialization. Further, the theory explains there is bidirectional causality between trade openness and economic growth. It highlights when trade openness is there in a country, economic growth exists because of increasing the production capacity of such country. In contrast, when there is the economic development of a country, they focus the new markets and move towards foreign trading.

### AK Growth Model

This theory stresses that financial development increases the growth rate by making a higher savings rate by increasing the marginal productivity of capital. Because previous methods in Cobb-Douglas and Solow's growth theory imply the diminishing return for capital. Therefore, in 1962, Arrow introduce a new theory as the AK model that stresses there is a linear pattern in economic growth and the factors of production especially capital. Further, this model explains the function of technology and savings for economic growth. Arrow explained the intervention of technological advancement in the production process to the development of the production capacity. He explained that learning by doing (experience) makes a big difference in productivity. Therefore, when there is an advancement in technology (way of work done), basic factors of production, labor, and capital become much more productive and make a significant contribution to the country's GDP. Therefore, the production cost gets lower and the saving or retaining after the cost of production improves gradually. Because having a higher saving rate makes the availability of local funds and attracts foreign direct investments to fulfill the capital requirements along with technological advancements within the country. Therefore, the economy grows due to investment in new ventures and the development of physical capital with the technology of the country.

### Harrod-Domar Model

It is a Keynesian model of economic growth introduced by two pioneer scholars Roy F. Harrod (1939) and Evsey Domar (1946). However, before the introduction of this model, in 1924, Gustav Cassel has shown the same. Harrod-Domar model is also one of the neo-classical models which explain the growth rate of a country is dependent on its savings rate and the capital. This model argues savings facilitate to get the required capital for investments and makes the economic growth. Even though this is one of the main theories that can be applied to countries in Asia, the main limitation of this model is it depends on the efficiency of investments and savings. Because too many savings make it reduce the sustainable growth since it disturbs the consumption pattern of people. Neoclassical theories are based on several key assumptions that work positively to mitigate the several limitations in classical economic theories. With neoclassical economic theories, it believes that people react rationally when making production decisions.

Therefore, efficient allocation of resources and risk-taking capacity gets improved. And the resources are allocated based on the efficiency level of production. Therefore, people try to minimize the cost of production and maximize profit. Hence, they move towards innovations in the real sector as well as the finance sector. Therefore, the development in the financial sector reduces the cost of transactions and the cost of information which opens doors to new ventures, better decisions, and novel investment opportunities. However, there are many arguments against neo-classical theories. One of the key criticisms for neo-classical theories is it hypothesizes that people are making rational decisions in both investment and allocation of resources to the efficient fields. However, it ignores the irrationality in human nature and the deviations of risk assessment patterns of people. Therefore, vulnerability to higher risk is ignored by these theories. Further, most of the neoclassical theories are highly dependent on the mathematical models ignoring that nature is more powerful than the mathematical model. Hence, the reliability of models is highly dependent on the assumptions made in these theories and gets invalid on some occasions.

### Empirical Review

#### Financial Innovation and Economic Development

Technological innovations make the economy boots up because it improves the productivity of operations and utilization of resources to their level best and gives the economic solutions to burning issues in both production and operation in the country. Technological advancements support the easy transfer of both resources as well as knowledge, smooth functioning of economic activities, and allocation of resources among the real sector. Therefore, it is clear that innovations and development in financial markets, financial institutions, financial instruments positively influence productivity improvement, reduce the cost of production while increasing the quality of products. Consequently, it benefits both enterprises and the customers in many directions like customers get an opportunity to consume high-quality products at lower cost that improves the purchasing power of people resulting from the higher living standard. On the other hand, enterprises can expand their production at a lower cost than generates high profits for them and can diversify their business to the other countries which lead to obtaining the competitive advantage and value for what they produce. Innovations take place in both the real sector as well as the finance sector. Technological innovations in the finance sector motivate the introduction of new financial instruments and facilities to the users that lubricate and easy transitions in financial markets (King and Levine, 1993). Further, there are many marketing theories like competitive advantage theory that discuss the importance of innovation to obtain a strategic advantage in the market. Therefore, when there is an advancement in both products and financial services that easy the flow of resources from excess to the deficit leads to the development of the economy. Hence, the long-term impact of technological innovation in financial development over economic growth can be seen (Hsu et al., 2014)

#### Financial Development and Economic Growth

Financial development is defined as the development in the financial sector of a country. The World Bank defines the financial sector development as development in financial institutions, financial markets, and the financial instruments that provide the intermediary services to transfer capital or funds from excesses to deficits or in other words funds depositors to loan borrowers. On the other hand, financial sector development can be defined as the development in size, efficiency, stability, and access to the financial system of a country. When the size of financial institutions gets larger in terms of the number of branches, facilities provide by those institutions, the efficiency of the transactions process through the financial institutions makes better service to the customers, then, the flow of resources gets efficient and the cost gets reduced. That improves the confidence of the investors to invest in the real sector and creates a perception that the financial system is stable and well-developed. The main task of a well-developed financial system is to produce information to the investors on best investment opportunities and minimize the risk, allocate capital among productive investments, monitor firm performances, maintain the corporate governance,

pooling of savings, motivate trade diversifications, and smooth trading to eliminate the market distortions. Therefore, investors motivate to more investments because of their self-confidence in taking the risk. Hence the economy boots rapidly and showcases economic growth.

IGI Global website defines economic growth as an "increase in the capacity of an economy to produce goods and services, compare from one period of time to another" or it is the "increase in the number of goods and services produce per head of the population over a while". The economic growth is indicated through the percentage increase of the real gross domestic product of a country adjusting to the inflation factor over time. Many economists argue that financial development is one of the crucial factors of the economic growth of a country. Therefore, the debate on the exact link between financial development and economic growth has run for many decades from its starting point around the early nineteenth century. Even though there are many decades have gone from the starting point of this discussion still the relationship between FD and EG is an unsolved puzzle. As one of the pioneer scholars, Boot and Marinc, (2010), explained that development in financial services is the key inherent feature of financial development. Without the financial innovations, it is pointless to discuss FD because when a country moves towards its FD, they need to improve their financial institutions and the financial markets. Aline to the development in the financial markets, it is obvious to have a proper mechanism to do trading. Hence, new techniques and novel financial instruments are the key infrastructures to have sophisticated financial markets. Therefore, financial institutions are highly focused to introduce new financial instruments and new techniques. Qamruzzaman and Wei, (2019), stated that financial innovations and financial inclusions work positively to have the financial development in an economy and works favorably for the economic development. Further, they argue that having a sophisticated financial system and advanced financial market leads to attracting investors and motivates productivity.

Babajide et al., (2015) discussed the importance of financial inclusion on economic growth. Follow up study by Adeola and Evans (2017) confirmed the same. They suggested when the innovations exist, the resources are mobilizing smoothly towards the real sector and creating new opportunities for novel investments, the ultimate result is economic development. A well-performing financial system is facilitated by technological development and innovations (Schumpeter, 1911). The development in financial intermediaries improves resource allocation and accelerates productivity which makes a long-run economic development. Further, the development in the banking sector facilitates the credit to the private sector which is one of the driving forces of the economy (Sharma and Kautish, 2020, Olayungbo and Quadri, 2019, Biplob and Halder, 2018, Puatwoe and Piabuo, 2017, Qamruzzaman and Jianguo, 2018, Pradhan et al., 2017). Stock market liquidity and banking sector development are robustly and positively associated with capital accumulation and productivity. Hence, a well-functioning baking system makes efficiency in capital allocation and effective implementation of capital resources into productive projects strength the economy (Bist and Bista, 2018, Tursoy and Faisal, 2018, Guru and Yadav, 2019, Bongini et al., 2016, Puatwoe and Piabuo, 2017, Kyophilavong et al., 2016).

In addition, developments in financial services and financial innovations are the vital factors that make the structural modifications in the financial system that lubricate the mobility of funds from excess to deficits and improve the gross domestic product of countries (Abeka et al., 2021, Ogbonna et al., 2020, Bist, 2018, Lawal et al., 2016). Therefore, it is well understood that financial development is the key driving force of economic development. Therefore, most empirical findings conclude financial system has a positive effect on economic growth (Karlsson et al., 2021, Hoque and Yakob, 2017). Further, many scholars argue the size and type of the effect are varied based on the income level of the country and different indicators of financial development. They claim the impact of financial development on economic growth is stronger in high-income economies than the lower-income countries (Peprah et al., 2019, Khan and Senhadji, 2000, Bahri et al., 2018, Herwartz and Walle, 2014). Aline with this hot argument, a pool of scholars argue that financial development affects positively up to a certain threshold and when the economy declines to a certain level or a threshold, financial development leads to an economic recession (Ruiz, 2018, Arcand et

al., 2015, Samargandi et al., 2015, Beck et al., 2014, Law and Singh, 2014) and shows a weak form relationship in low-income countries (Ductor and Grechyna, 2015, Grassa and Gazdar, 2014, Mhadhbi, 2014). Apart from the positive association, another school of scholars stresses the importance of financial development in economic growth has overstressed. They highlight the function of financial development over economic growth has been over-stressed. Further mention, high volatility in stock prices, share market and money market interactions makes economic crisis and higher financial liberalization generates instability in exchange rates. Hence, financial instability makes a negative effect on economic growth (Ruiz, 2018, Arcand et al., 2015, Creel et al., 2015, Samargandi et al., 2015, Beck et al., 2014, Law and Singh, 2014). Further, some studies have shown there are non-linearities exist in FD and EG for some countries. They state the main reason for the nonlinearity is the differences in macro-level and country-specific factors like size of the country, political situation, economic condition, and per capita income level of such countries (Benczur et al., 2019, Doumbia, 2016, Rioja and Valve, 2014).

### Causality of Financial Development and Economic Growth Nexus

Many studies proved that financial development has a direct effect on economic growth. However, the causality remains mysterious (Olayungbo and Quadri, 2019, Qamruzzaman and Jianguo, 2018, Bist and Bista, 2018). The causality relationship can be divided into four categories as unidirectional causality direct from financial development to economic growth, the unidirectional effect from economic growth to financial development, bidirectional causality among dual and no causal relationship. Therefore, some scholars state, that financial development has a unidirectional causality effect from financial development to economic growth called supply leading causality (Bist and Bista, 2018, Menyah et al., 2014). In contrast, some studies proved there is a unidirectional effect in another way round which is called the demand follow causality effect (Atil et al., 2020, Pradhan et al., 2017, Menyah et al., 2014).

Therefore, it shows that the causality relationship between financial development and economic growth get change from one study to another. Jung (1986), stated that in general, underdeveloped countries experience the unidirectional causality that runs from financial development to economic growth, but in developed economies, the causality shows reverse direction. However, some studies proved that there is a bidirectional effect between financial development to economic growth (Olayungbo and Quadri, 2019, Qamruzzaman and Jianguo, 2018). Apart from all of the above arguments, there is another set of studies to prove there is no systematic causality relationship between FD and EG (De Gregorio and Guidotti, 1995, Ram, 1999, Faisal et al., 2018).

### **METHODOLOGICAL ANALYSIS**

Time Series (TS) analysis and the cointegration have been used in many studies to measure the longitudinal effect of FD and EG (Alomari et al., 2019, Comin and Nanda, 2019, Wang, 2019, Tursoy and Faisal, 2018, Bist, 2018, Durusu-Ciftci et al., 2017, Muhammad et al., 2016, Pradhan et al., 2016). However, using TS analysis is having many limitations and has been criticized by many scholars for its' limitations. One of the main arguments against the time series is that it uses a single stream of data which is not enough to predict and generalize the model (Qamruzzaman and Jianguo, 2018). Also, TS models are highly sensitive to the trends, cyclical and seasonal effects. Therefore, accurate understanding and adjusting of the trend, seasonal and cyclical effects is a key factor when interpreting the results but hard to adjust them properly with a single model (one key limitation of time series models). Further, TS analysis suffers from generalizability of results of one study to another, so that needs a systematic replication. Therefore, the analysis tools are appropriate only for one study and need to implement a separate model for the other. Further, identifying the correct model to represent the data is difficult. Another common technique used in previous studies is the Cross-Sectional (CS) analysis which is highly sensitive to the sample size and the elements features of the sample. When the sample size gets lower, the model gets affected badly.



In addition, CS analysis is suffering from predictive limitations. For instance, CS analysis is carried out for a one-time point or a short period that describes the association between variables. Therefore, when analyzing the FD and EG, there needs to be a focus on the longer period to analyze the relationship and the cointegration of variables. In general, the key elements of FD and EG are highly sensitive to time variations and macro variables. Therefore, using CS analysis is inadequate to capture the effect of time variation and change of macro-level variables on the FD and EG. Moreover, using CS analysis cannot be used to measure the causality relationship between variables but empirical reasoning has proved FD and EG have interdependence on one over the other. Further, none of the CS or TS analyses are sensitive to structural breaks. Since there are many structural breaks in economies due to changes that happen in political situations, economic conditions within and outside the countries have directly as well as indirectly influenced the economy of countries. Therefore, the results obtained in TS and CS analysis are weak invalidating when structural breaks are existing in countries. Therefore, there is a vacuum for a strong sophisticated techniques to analyze the FD and EG nexus. Hence, as a substitute for these two techniques, many scholars in the recent past have focused to occupy panel data analysis which reduces the limitations in both TS and CS data analysis (Bist, 2018, Guru and Yadav, 2019).

### A Path Forward

This study shows there are several limitations in previous studies and enlighten a pathway for future studies. One of the limitations is though there are pieces of evidence that FD and EG have a sturdy association, the type of the relationship is not clear. Because one set of studies prove there is a positive association between FD and EG, but others state there is a negative relationship or no significant relationship is existing. Furthermore, the causality effect of FD and EG is still a puzzle. Because while one set of studies confirms there is a unidirectional effect between FD and EG, another bunch of pieces of work show there is a bidirectional influence. In addition, most of the previous studies have used either Cross-Sectional (CS) or Time Series (TS) analysis tools as the main equipment to measure the relationship and causality of FD and EG. However, both these techniques are having many statistical limitations. Therefore, literature demands advanced techniques to capture the time and cross-sectional diversifications. Therefore, this study suggests using suitable techniques like panel data analysis like mean group, pool mean group, or dynamic fixed-effect model that overcome many limitations in CS and TS analysis to measure the FD and EG nexuses.

### **CONCLUSION**

The purpose of this study is to have an in-depth review of key theories, concepts, and previous studies in the field of FD and EG nexuses and study the methodologies used and the validity of analysis tools used in preceding literature to examine the relationship and causality between FD and EG. A study did the theoretical and empirical literature review and critically analyze the findings of previous pieces of evidence. The findings evidence that though, theoretically, it is clear that FD and EG should have a strong association with a positive correlation between FD and EG, empirical reasoning challenges the theory to prove that positive and strong association is not valid for all the times. Because empirically it has been proven that there are negative relationships and no significant associations are existing in some countries. Further, one line of scholars confirms there is a unidirectional causal effect over the EG from FD, but others state there is a bidirectional influence between FD and EG. Therefore, its evidence of the ambiguity of the causality effect. Further, proves the studies are still at the infant level and need more attention. In addition, most of the scholarly works occupied either CS or TS to investigate the relationship and causality. However, both methods have many intrinsic statistical limitations. Therefore, using sophisticated in-depth analysis is needed. Therefore, using the panel data analysis techniques in future studies is more appropriate to overcome the limitations in CS and TS techniques.

The findings of this paper enlighten the way forward for both scholars and the policymaker to carry out sophisticated examinations in the field of FD and EG nexuses and focus the findings to make policy

decisions. Further, the results of this paper suggest customizing the analysis tool according to the sample. When analyzing the long-run effect and causality effect of FD and EG, the study recommends utilizing much-advanced techniques like panel data analysis that minimize the inherent limitations in both CS and TS.

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# SPACE TRAVEL PRIVATIZATION BY SPACEX

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## ABSTRACT

*In 1970, the Indian Space Research Organization (ISRO) started the Satellite Launch Vehicle (SLV) project, a small-lift launch vehicle project (Muegge, 1970). Since its introduction in 1970, with a mission to launch satellites into space using a rocket-powered vehicle, the SLV market has grown exponentially and is currently valued at \$2B (Clark, 2013). The Congressional Research Service classified SLV under aircraft and spacecraft industries and exercises, focusing on space-related services for telecoms and satellite navigation. This case study summarizes Elon Musk's aspirations, conflicts, and milestones to develop his company, SpaceX, into a leading private commercial spaceflight venture to visit Mars. The SpaceX project's primary barriers were overcome by vertical integration, with four launch locations across the United States (Mosher, 2019). The SpaceX project covers over 100 missions, representing over \$12B in revenue to transport astronauts to the International Space Station (Maddox, 2021). Elon Musk follows innovative principles and reusability to decrease the overall cost of an SLV. This case study discusses entrepreneurship, self-determination, and management, to give readers a deeper understanding of this industry. SpaceX provides employees freedom, inspiration, and maintenance of operational control. Elon Musk demonstrates that success can be achieved by seeking autonomy for entrepreneurship, authoring, and creating change.*

**JEL:** G0, H0

**KEYWORDS:** SpaceX, Elon Musk, Space Launch Vehicle, Rio Grande Valley, Mars

## INTRODUCTION

This case study summarizes Elon Musk's aspirations, conflicts, and issues to develop his company, SpaceX, into a leading private commercial spaceflight venture to visit. SpaceX has brought down the cost of its current rocket Falcon 9, to less than \$30M per launch (Ben-Itzhak, 2022). The cost reduction is generated by landing the most expensive part of the rocket and reusing it multiple times. Elon Musk stated that the next-generation rocket would be far less expensive per launch, "I'm highly confident it would be less than \$10M," Elon Musk said. During the last 15 years, commercial space activity increased from \$110B in 2005 to \$357B in 2020 (Be-Itzhak, 2022). Morgan Stanley forecasts an industry growth of \$1T by 2040 (Sheetz, 2022). This case study discusses entrepreneurship, self-determination, and management, to give readers a deeper understanding of this industry. SpaceX provides employees freedom, inspiration, and maintenance of operational control. Elon Musk demonstrates that success can be achieved by seeking autonomy for entrepreneurship, authoring, and creating change. The remainder of the document is organized into eight sections: Abstract, Introduction, Literature Review, SpaceX, Management Novelties at SpaceX, A path Forward, Concluding Comments, and Biography.

In October of 2020, Elon Musk launched the 100th mission of SpaceX. Elon Musk's SpaceX, a next-generation reusable rocket project, aims to revolutionize the industry, representing over \$12B in contracts. The mission of SpaceX is to affect and innovate the space industry by building an entrepreneurial sector and creating new non-traditional investor entrants (Clark, 2013). This case study focuses on reviewing entrepreneurial activities by Elon Musk to establish and expand SpaceX using publicly available resources.

This private commercial spaceflight venture is currently one of the fastest-growing launch service providers (Mosher, 2019). Additionally, SpaceX focuses on the next generation by deploying reusable launch vehicles capable of carrying humans to Mars and farther destinations in the solar system (Parietti, 2021). Elon Musk provides a path to demonstrate innovation with renewable rockets by improving the cost and reliability of access to space for satellites and humans.

Entrepreneurship and innovative activities perceive as “groundbreaking” with “paradigm-shifting potential” (Parietti, 2021). SpaceX’s strengths come from applying theory building with careful observation and accurate description (Parietti, 2021). According to Yin and Eisenhardt, defining aspects and explanations are strengths of the case study research designs. Therefore, this case study covers highly affected technology innovations influencing SpaceX theory, technology building, and entrepreneurship. The emancipation perspective of entrepreneurship connects verbs and actions rather than nouns and things (Muegge, 1970). Therefore, this case study describes entrepreneurship activities led by Elon Musk that have brought profound changes to the space industry. SpaceX earned worldwide attention as the first private company to return a spacecraft from a low Earth orbit in 2010 (Eldridge, 2021).

This case study focuses on Elon Musk’s decision to become an entrepreneur in “New Space,” referring to the recent commercialization of the space sector. Elon Musk saw an opportunity to seek autonomy in an industry driven by constraints, wherein the apparent barrier to human exploration beyond the low Earth orbit is the high cost to access space. He sought to create dreams and fight these constraints by striving to send humans to Mars, demonstrating that change is possible by using cost-efficient methods. SpaceX aspired to change, build, and launch space vehicles, operating differently from government-run projects through privately held contracts. According to Clark, by the end of 2020, SpaceX had over 100 successful launches, accounting for an estimated \$4B in revenue (Clark, 2013).

Many investors have sought to purchase stock, but SpaceX is a privately-owned rocket company that does not allow shareholders. Many speculate that the company will issue a public stock offering after making a successful trip to Mars. This company can save significant money from reinvesting in different needs by building reusable rockets. The advantage of private operation is its ability to promote the company’s goals. Today, SpaceX has 3,000 employees working on developing three different space vehicles. In 2026, the company expects to reach its primary goal of visiting Mars safely.

Meanwhile, the company focuses on entering into more government contracts to complete successful launches. Elon Musk’s space project, Starlink, will comprise 12,000 internet satellites by 2027 (Mosher, 2019). Elon Musk’s SpaceX Company will control and operate most operational spacecraft in orbit if this goal is successful. The goal is to cover the Earth with high-speed, low-latency, and low-price internet access. Starlink’s implementation will benefit the economic sector and allow internet access to remote rural areas. However, some competitors fear that SpaceX might encroach on similar projects to build global satellite-internet constellations. Both One Web and Amazon, with their Project Kuiper (Mosher, 2019), expect to deliver high-quality internet access.

## LITERATURE REVIEW

SpaceX, founded in 2002 and headquartered in Hawthorne, California, is a relative newcomer to the aerospace industry flourishing in Southern California since the 1950s. However, the aerospace industry is focused on transforming spaceflight, making affordable journeys into space a reality. SpaceX entered the aerospace industry with the Falcon One rocket, a two-stage liquid craft, to send a small satellite into orbit (Eldridge, 2021). SpaceX changed the industry pattern for launching rockets by focusing on reliability and cost to match the launch demand. It is the first private company to successfully launch spacecraft at the International Space Station (ISS) and then return them to Earth (Eldridge, 2021). When Elon Musk first entered the space industry, his competitors viewed SpaceX as an “unrealistic upstart” (Eldridge, 2021).

However, these competitors did not appreciate how Elon Musk would change the realities of the spaceflight business: “Yet, SpaceX managed to offer some services at a cost of 20% to 30% less than its competitors” (Eldridge, 2021). Therefore, SpaceX’s low-cost model was embraced, and the company became the leading authority on private spaceflight, distinguishing itself from other businesses in the industry (Karami, 2021). According to Liskowczyk (2016), SpaceX overcame entry barriers for the respective industries by implementing a unique technique to the space business. This research demonstrates that SpaceX, driven by Elon Musk, overcame entry barriers through their sizeable initial investment and the vertical integration implementation. SpaceX adhered to guidelines to use reusability and decrease the cost of an SLV. This research suggests that other companies might join together to build a more robust and healthier SLV industry with support from the U.S. Air Force. Furthermore, this research can assist the government in recognizing companies and technologies in their early life-cycle that can bring potential to the SLV industry at a lower cost.

Therefore, the drive of the research, led by Liskowczyk, is to understand how SpaceX entered the SLV industry by practicing innovative techniques and business practices. The SLV industry is small and leaves few options for customers to engage. The average cost to the U.S. Air Force is \$225M from the United Launch Alliance (ULA); this creates a problem since it leads to a more considerable risk for U.S. taxpayers (Liskowczyk, 2016). SpaceX entered the industry and quickly developed several innovative projects to provide a commercial option to launch satellites into space. Action based on this research represents assistance to the U.S. Air Force to inspire more competition in the industry. Therefore, the U.S. Air Force should reassure vertical integration to address the cost-prohibitive startup cost, allowing for the implementation of new assembly strategies and manufacturing processes.

Continuing with our literature review section, now we discuss research made by Muegge, S. & E. Reid. (2019). This research problem consists of identifying and describing the New Space activities of Elon Musk. The authors’ work contributes to the theory and practice of innovation by adding descriptive case studies that examine the process. The results and methods are of specific interest to the space industry entrepreneurs, managers, analysts, and officers at governmental space agencies (U.S. Air Force). This research examines the action taken by Elon Musk divided into six perceived constraints: (1) space was boring, (2) tech companies address low-impact problems, (3) entrepreneurs give up control of companies, (4) U.S. launches required Russian launch vehicles, (5) no humans on Mars, (6) shared belief in cost-reductions. Mr. Elon Musk escaped these constraints by launching SpaceX, creating an opportunity to inspire and be in control, demonstrating that change is possible, and eventually transporting humans to Mars.

## **SPACEX**

According to Wattles (2018), Elon Musk’s mission with SpaceX was to design, manufacture, and launch advanced rockets. He founded the company to revolutionize space technology to transport humans to other planets with the ultimate goal of establishing human settlements on other planets. Elon Musk was born in South Africa in 1971, and after obtaining degrees in economics and physics at the University of Pennsylvania, he moved to Northern California’s Silicon Valley in 1995.

Upon moving to Los Angeles in 2001, Elon Musk surrounded himself with the world’s top aeronautics thinkers, which helped him realize what he wanted to do in space. Even before he founded SpaceX in 2002, Elon Musk’s goal was to establish a human settlement on Mars, thus making humans a multi-planetary species. SpaceX has three space vehicles and over 6,000 employees and has effectively made over 100 launches. As one of the world’s fastest-growing launch service providers, SpaceX continues to build capable vehicles that can carry humans to various destinations in the solar system (Wattles, 2018).

Space X's growing performance began declining in 2019 due to an increase in unsuccessful launches. This case study analyzes every step to build their current success, with 2019 as the starting point. 2020 was a news-filled year for SpaceX and the space industry, and the company was busy with the earliest successful launch of its start ship prototype (Karami, 2021).

While the National Aeronautics and Space Administration (NASA) focused on landing its Perseverance rover on Mars, SpaceX's busy ride began in December 2019 with the explosion of its SN8 prototype, and the company expected to send its next prototype with Raptor engines to the Launchpad this year (Karami, 2021). On February 2, 2021, the SN9 test lifted off after SpaceX and the Federal Aviation Administration (FAA) agreed on safety waivers. The test launches of Starship prototypes continue from Boca Chica, Texas, throughout the year as they prepare for the prototype's first orbital flight scheduled for the end of 2021 (Karami, 2021).

SpaceX has ambitious spacecraft launch plans and other projects based on the 2019 incomplete and failed projects (Jackson, 2021). For example, on January 6, 2021, Falcon 9 launched the third set of 60 Starlink satellites. This added two missions and in-flight tests to the company's Crew Dragon spacecraft (Jackson, 2021). Another ambitious spacecraft launch in 2020 was the deployment of the Starlink broadband constellation, which led all business launches, according to Gwynne Shotwell 2020, President and chief operating officer of SpaceX. The SpaceX launch rate, combined with NASA, U.S. Air Force, and commercial customers, doubled compared to a slow 2019, with 13 launches, and to 2018, with 21 launches (Sheetz, 2022). The launch rate in 2019 declined by 40%; SpaceX.com included a three-month gap between launches from August to November 2019.

However, the declining performance was not due to issues related to the rocket; a lack of customers ready to launch caused it. This issue involved the commercial communications satellite market, and Shotwell stated, "This is the first year that we are seeing that we are now ready to fly our customers before they are ready" (Foust, 2020). In addition to the performance decline, SpaceX does not have a clear timeline for completing the space vehicle. The required launch license or permit from the FAA's Office of Commercial Space Transportation can delay any launch.

According to Elon Musk, the delays in starship development originate from "new technology development schedules that exhibit a version of Zeno's paradox - at any point, you're halfway there" (Federal Aviation Administration, 2021). The year 2021 had the potential for more good news with two SpaceX launches, including sending astronauts to the ISS and NASA launching a rover to collect a sample from an asteroid 200 million miles from Earth (Eldridge, 2021).

However, a negative for SpaceX is the lack of employee training, leading to declining company performance and decreased productivity. When a company such as SpaceX proposes something revolutionary, there will always be skeptics (SpaceRef, 2011). Some speculate the company will find it challenging to match the quality control to succeed.

However, with the launches of Falcon 9 and Dragon, SpaceX has lowered launch costs. According to Chinese government officials, SpaceX has the best launch prices globally, making a strong case for American innovation outshining lower labor costs found overseas (SpaceRef, 2011). During the World Satellite Business Week conference, SpaceX performed 10 launches, including four Starlink missions. However, this satellite program had its challenges. To avoid failure in space missions and consequent losses, the company has tested with the U.S. Defense Department, including equipment costs and terminal availability (SpaceRef, 2011).

## MANAGEMENT NOVELTIES AT SPACEX

Conflicts have arisen in the Texas neighborhoods over the expansion of SpaceX's Boca Chica facility. In March 2020, Elon Musk announced on Twitter that he was planning to create a city at Boca Chica Village and its surroundings and name it "Starbase": "Please consider moving to Starbase or the greater Brownsville/South Padre area in Texas and encourage friends to do so!" (SpaceX, 2021) Elon Musk exhorted.

Before SpaceX began operations there, the Texas beachside community of Boca Chica was a place for residents and visitors to enjoy outdoor activities, including dirt biking and fishing. Today, there is continuous traffic flow on the lone highway as tourists come in droves to photograph the steel spaceships under construction. Excavators work at construction sites at night, leaving residents sleep-deprived. Following Cameron County regulations, residents receive notices suggesting that they temporarily vacate their homes for safety before test launches. Additionally, the closure of State Highway 4 was implemented (Salazar, 2021).

However, Elon Musk believed that creating the city of Starbase would help private spaceflight companies attract future employees and improve their business. "SpaceX's hiring needs for engineers, technicians, builders, and essential support personnel of all kinds are growing rapidly," Elon Musk stated (SpaceX, 2021). Currently, the company has over 100 open positions (Duffy, 2021). Additionally, Texas State law requires a potential municipality to have at least 201 inhabitants (Rodriguez, 2021) who would be required to vote on the potential incorporation of a city. As of March 2021, SpaceX owned 110 parcels of land in Cameron County, and Elon Musk's dream of creating a city was inching closer to reality, with Elon Musk predicting, "Starbase will grow by several thousand people over the next year or two" (Duff, 2021).

Not all Cameron County residents approve of SpaceX operations. Safety for residents is crucial; Cameron County Judge Eddie Trevino has said that if SpaceX wants to remain in the area, it will be required to abide by state laws (Tribune News Service, 2021). Therefore, SpaceX is considering expanding to Austin, Texas, but they have not announced formal plans. Elon Musk stated that a new engineering facility might be needed (Carlson, 2021). Elon Musk's plans for Starbase are influencing the housing market and the economy of South Texas. Real estate agents in the area recognized buyers and investors ready to acquire land, particularly near the rocket production facility and launch site in Brownsville and South Padre Island (Bondarenko, 2021).

Data from the Brownsville/South Padre Island Board of Realtors show that, during March 2021, the median price for a single-family home rose 14.2% to \$177,000 (Bondarenko, 2021). Experts observed a lack of available accommodation; an economist and associate professor of Economics and Finance at the University of Texas Rio Grande Valley added that the inventory of houses available would hold for only another month, and prices would increase accordingly. Contreras added that Cameron County currently focuses on building permits for apartment complexes, but houses are not being built. "Retail is also benefiting," said Contreras. "Let's remember that some 12% of all employees in the Rio Grande Valley (RGV) are tied to the retail sector" (Rodriguez, 2021). Cameron County elected officials are working alongside market experts to grow the economy and attract more visitors to the region.

Besides the market expansion crisis faced by the valley, the new wave of migrants arriving at the United States' southern border under President Biden's migration overhaul plan is just miles away from SpaceX's Starbase test facility. Biden's plan allows migrants to enter the United States while acquiring protected legal status.

In Brownsville, Texas, there is a 300-yard distance from the metro bus station, and immigrants advocate celebrating new arrivals hoping for a change and economic opportunity in the U.S. New technologies for

additional border security will be placed near the SpaceX launch site. Biden's measure involves limited arrests and deportations with supervisor approval (Salazar, 2021).

In addition to the delays in the launch schedule, the SpaceX satellite project faces scrutiny due to growing concerns. For example, in 2019, the European Space Agency had to fire thrusters on its Aeolus satellite, raising its orbit to pass safely over Starlink 44, one of the first 60 satellites in SpaceX's Internet constellation. The maneuver occurred 30 minutes before a potential collision (Foust, 2020). Astronomers have raised concerns about the bright appearance of Starlink satellites. According to SpaceX, a bug in the paging software used to alert satellite operators was the reason for this problem (Foust, 2020). This issue was discussed at a special session at the 235th meeting of the American Astronomical Society in January 2020.

SpaceX continues to face setbacks as it develops new equipment. In February 2020, the pressurization test severely damaged a version of its next-generation launch vehicle starship. The vehicle's completion timeline is unclear because it requires a launch license from the FAA's Office of Commercial Space Transportation (Foust, 2020), as it can take several months to obtain this license.

Elon Musk encourages his employee's freedom, inspiration, and maintenance of operation control by providing a place to gain and share knowledge. Elon Musk's leadership style involves empowering young engineers to learn from others and develop new ways to solve problems. Josh Boehm, a former Space X employee who collaborated with Tesla- COO & Co-Founder Cyph.com, explains how Mr. Elon Musk encourages his employees to work long hours.

SpaceX culture seems to be a common misconception; no one forces you to work long hours, especially not Elon. SpaceX focuses on hiring self-driven people who are passionate about every mission. The long hours are what it takes to get the job done, particularly if they are limited resources. Mr. Josh Boehm describes the working environment in a rocket factory as being "amazing on its own." The team culture and environment contribute to their success; having encouraging speeches by Mr. Elon Musk will gather everyone outside of a mission control before the launches.

Having open office space contributes to seeing everyone working hard, creating a mentality of not wanting to let anyone down and respecting all their hard work. SpaceX is very flexible, lets employees work remotely when possible, and manage their schedules. By focusing on results, allowing freedom and creativity to arise. The culture at SpaceX involves working with different departments, closely monitored changes, and high communication skills, "Choose a job you love, and you will never have to work a day in your life." Their success comes from employees' dedication and self-driven personalities, creating an enjoyable working experience.

## **A PATH FORWARD**

Concerns about SpaceX's operations continue to grow in Cameron County, and decisions traced to allegedly poor leadership are now being questioned. According to Bolton (2021), SpaceX's launches in South Texas were frustrating for residents. While some Cameron County citizens believe that the company's expansion is good for the economy, others believe it threatens the community (Bolton, 2021). At a recent Brownsville City Council meeting on May 25, 2021, residents complained that SpaceX displaced residents, pushed away local businesses, and caused environmental damage. One highway leading to Boca Chica Beach must be closed during SpaceX activity, and according to the Cameron County website, the beach was closed for 12 days in May 2021 (Bolton, 2021).

Elon Musk is hiring several thousand people to work at SpaceX Starbase in Texas (Maddox, 2021), specifically engineers, technicians, or builders ready to move to Brownsville/South Padre, Texas. Currently,

SpaceX has over 1,000 job openings, with 109 in Brownsville, ranging from senior software engineers to thermal hardware specialists and from heat shield builders to pipefitters. The 2014 Brownsville Economic Development Council projected that SpaceX would generate \$85M in economic activity in Brownsville, with \$51M in annual salaries by 2024 (Blankley, 2021).

The primary focus of SpaceX was on manufacturing and launching rockets and spaceships (Trefis Team and Great Speculations, 2018) affordably through its reusable rocket technology. In addition to making significant technological advances, the company generates money by launching satellites in Earth's low orbit and transporting cargo to the ISS (Trefis Team and Great Speculations, 2018). SpaceX's strategy is to charge customers less per launch than its competitors, allowing for a small profit margin and creating more opportunities to refine and advance the launches. Research and development are long-term goals (Trefis, 2018).

According to O'Kane (2017), SpaceX's reusable rockets offer direct competition to airlines that transport passengers to a location, reach a low orbit, and return safely. For example, SpaceX could use the Falcon 9 rockets to fly the proposed routes from Hong Kong to Singapore in 22 minutes, London to Dubai or New York City in 29 minutes, and Los Angeles to Toronto in 24 minutes (O'Kane, 2017). This future Earth City-to-Earth City travel method would be the fastest ever created by humans. With the rocket reaching 18,000 mph, Elon Musk stated that it would be "more than an order of magnitude faster than the Concorde" (SpaceX, 2021).

Forecast envisions SpaceX holding the largest market share in the commercial satellite launch industry (Trefis Team and Great Speculations, 2018), owing to its lower cost per launch than its rivals. According to Forbes.com, five of the 18 SpaceX launches in 2017 involved reused components, allowing faster turnaround. SpaceX minimizes the downtime between launches by reusing components, reducing even more time in the long run.

In 2015 and 2016, SpaceX had two launch failures, which negatively affected the number of launches in the following years (O'Kane, 2017). Therefore, SpaceX considered collaborating with its largest competitors, NASA and Iridium. The resulting fixed prices for the launch of commercial satellites (Trefis Team and Great Speculations, 2018) offered sizable discounts to customers. The number of successful launches increased, with experts forecasting a rise from 31 to 45 within 2021 (Trefis Team and Great Speculations, 2018).

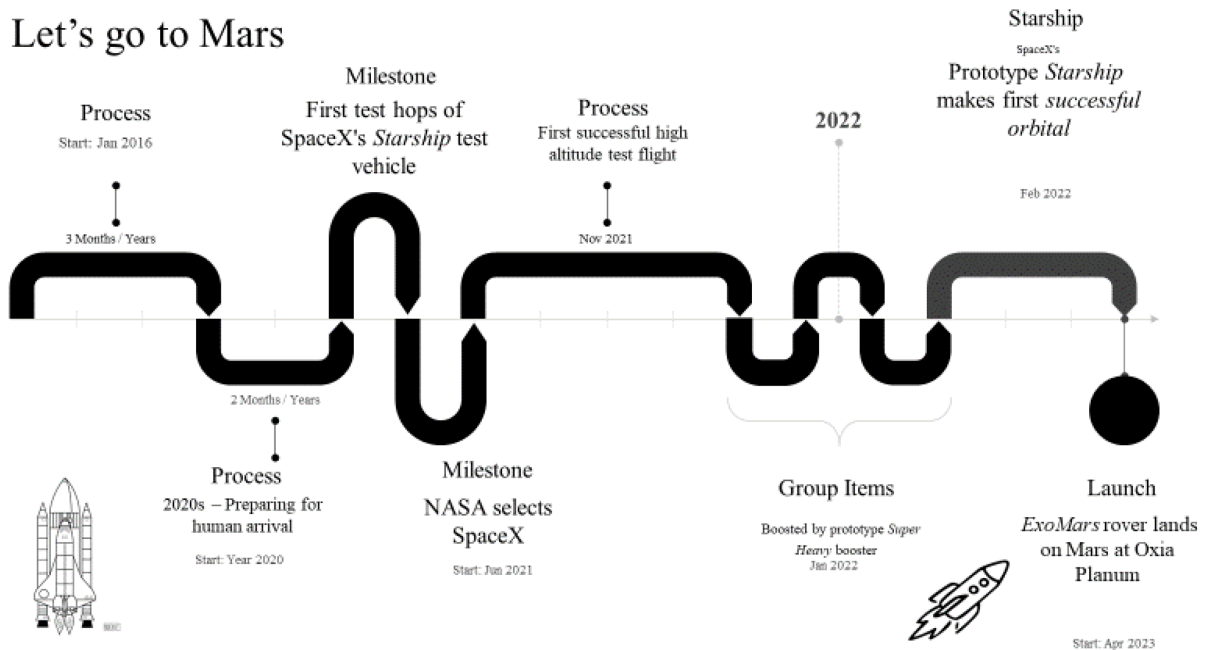
According to an article by Brian Calvert (2020), "the Elon Musk dilemma" revolves around poor actions and their consequences. Calling Elon Musk a billionaire executive, not a leader, Calvert states that his two greatest ideas involve electric vehicles and the settlement on Mars. A world powered by electric vehicles would create environmental benefits but require burning more fossil fuels. Building more nuclear facilities (Duffy, 2021) and drawing tremendous amounts of rare materials would damage landscapes, people, and plants and ignite wildfires. Last, Calvert contends that citizens should demand a vision focused on current problems instead of on "magic vehicles" or "settlements on inhospitable planets."

Besides negative feedback and comments from people opposing Elon Musk's vision, SpaceX has been profitable since 2007 (SpaceX, 2021). According to Forbes, SpaceX has seen dramatic growth in jobs, infrastructure, and operational investment. SpaceX practices over 40 flights, representing more than \$3B in revenue (Trefis Team and Great Speculations, 2018). It plans to reduce prices in the long term by launching reusable vehicles. Currently, China has the fastest growing economy globally (Eldridge, 2019), but the American free enterprise system will ensure that the United States remains the world's superpower of innovation (Clark, 2013).

As one of the greatest entrepreneurs today, CEO Elon Musk leads the industry by using green technology and Tesla: “When something is important enough, you do it even if the odds are not in your favor.” (Niekerk,2021). SpaceX’s notable achievements involve Falcon 1, the first privately developed liquid fuel, and the first commercial provider launch to recover spacecraft from orbit. SpaceX serves as an example of effective project management by taking opportunities and trades on every project and pursuing beneficial methods and successes.

SpaceX promotes employees' communication, leadership, and risk management skills to inspire the practical design of reusable rockets. I think SpaceX and space exploration might move forward positively since the company has contributed tremendously to the spaceflight vernacular. Elon Musk dreams of creating reusable rockets to do commercial spacecraft and, involving advanced technology, building a new area of the space industry. Something that the NASA space shuttle was not able to continue to enhance. Today, 20 years later, SpaceX is a force that provides crewed missions to the International Space Station. Reusable rockets and spacecraft technology are the future as they allow for lower operations costs than competitors. SpaceX's aspirational goal has been to land the first humans on Mars by 2023. Figure 1 shows SpaceX estimated timeline to visit Mars.

Figure1: Timeline



This figure shows the estimated timeline for SpaceX to visit Mars. Starting with the year 2020, the company's first design. Elon Musk’s aspirational timeline for reaching Mars allows SpaceX to send cargo ships to Mars in 2022. SpaceX’s ultimate goal of enabling human life on mars to obtain permanent human colonization. The launch to visit Mars is planned for April 2023.

The implications of SpaceX policy, practices, theory, and subsequent research can influence the use of fully reusable launch vehicles. Elon Musk saw a need to understand why rockets were so expensive and wondered “how efficient you can be about getting atoms from a raw material state to rocket shape” (Chaikin, 2012). Elon Musk said that reducing the number of processes can result in “huge cost savings,” Elon Musk said. According to data analyzed by Salinas, SpaceX draws approximately \$80M in capital investment for each launch, creates 600 direct jobs paying \$50M in direct annual salaries at 50% above average county wages, generates 400 indirect jobs, produces \$70M in economic effect, and attracts 10-15K visitors per launch (Jackson, 2021).



Additionally, SpaceX offers internship opportunities for students, a space visitor's center, a museum, new curricula in school districts, entrepreneurial opportunities, the development of new aerospace clusters, and job opportunities throughout the Rio Grande Valley and South Texas (Rodriguez, 2021). According to the SpaceX website, whenever someone proposes to accomplish a brand-new task, there will be skeptics. Elon Musk's strategy with SpaceX is to reduce costs by reusing rockets, bypassing the lower labor costs found overseas (SpaceRef, 2011). Elon Musk has cost savings; however, it depends on the frequency of launches. After the failure of the Falcon 9 rocket on February 15, 2021, SpaceX investigated to avoid further errors and gathered data to rebuild Falcon 9's flight. Elon Musk responded to criticism of the failure by stating, "SpaceX is in this for the long haul, and, come hell or high water, we will make this work" (SpaceX, 2021).

Elon Musk's tenacity has allowed SpaceX to close a contract with NASA for supply runs to the ISS. The most recent one was in June 2021 (Bergin, 2015). SpaceX benefits the space technology sector through its innovative technological solutions. SpaceX's two strategies focus on helping NASA reduce the costs of technological innovations and provide multivendor options. Additionally, SpaceX focuses on reducing the cost of sending astronauts into space, program development, and spacecraft development. Reusable rockets have given SpaceX the benefit of lower costs for space transportation (Wattles, 2018). 3D printing technology can reduce the cost of mass production. In addition, SpaceX is working on journeys to Mars by reusing rocket technology to refill rockets in orbit and expand space travel by producing propellants on Mars. Increasing space travel launch costs have been a challenge in the past decade, and prices have declined because of commercial rocket development, though they are still high.

The high costs include the capital requirements of building single-use rockets with high system complexity. This low failure tolerance opened an accessible exploration for Elon Musk's reusable rockets to be tested. The reuse of rocket technology is where SpaceX has been successful, and a trip to Mars will require refilling the rockets in orbit. The ability to produce propellants on Mars is a challenge for future research. One of the significant challenges SpaceX will face by March 2024 is the requirement for half of the satellites to be launched by the Federal Communications Commission (Federal Aviation Administration, 2021). The commission reserves telecommunications for the Starlink system, requiring SpaceX to deploy satellites as soon as possible.

Additionally, SpaceX has to update the "de-orbit plan" to show how to handle space debris from deteriorating satellites. "We aspire to launch in late 2024 with an arrival in early 2025," Elon Musk informed reporters after his presentation at the International Astronautical Congress in Guadalajara, Mexico. "That's optimistic, so I would describe that as an aspiration and within the realm of possibility, but a lot of things need to go right. That said, I do not think it would be significantly beyond that if it did go later" (SpaceX, 2021).

SpaceX's biggest competition in the commercial launch market is Arianespace. Although SpaceX claimed almost half of the market last year, the request for the launch of Geo Satcom has not yet been approved. The U.S. Air Force manages national security space programs and awards development contracts for launch vehicles. SpaceX was one of the four competitors denied an award, although it had struggled for years to obtain military launch certifications for its workhorse Falcon 9 rocket. SpaceX can still compete in the second phase of the program. The company had grandiose plans to develop a new launch vehicle or rocket engine capable of supporting human-crewed missions to Mars. However, the U.S. Air Force was looking for something simpler, similar to the rocket-like Falcon 9.

This company has had high and low milestones since 2002. The primary goal of obtaining U.S. space travel function after NASA canceled the shuttle program. The company's most important rocket launches, landings, and payloads are discussed in this section. The first successful flight of Falcon 1 lasted only one minute in September 2008. Falcon 1 successfully achieved orbit, becoming "the first privately-developed liquid-fuel rocket to reach Earth's orbit," according to SpaceX (SpaceX, 2021). The vehicle was launched

five times. The SpaceX Dragon spacecraft is a capsule designed to carry astronauts and emergency supplies to the ISS. This primary spacecraft was launched into orbit in 2010.

The Dragon landed in the Pacific Ocean close to the coast of Mexico. This was the first time a private spacecraft returned from orbit, another incredible achievement for the company, the first private company to dock with the ISS. Since that mission, SpaceX has sent Dragon to the ISS on resupply missions for NASA. Finally, Falcon Heavy's first launch became the leading rocket in commercial satellite launch flights. This rocket can carry 141,000 pounds (Eldridge, 2021) and is said to be fully reusable. The Starship prototype SN10 was developed in Boca Chica, Texas, and successfully launched in March 2021. Technology development is one of the main reasons Elon Musk originally founded SpaceX, and his main goal was to send humans to Mars and develop the aerospace industry (Eldridge, 2021). Elon Musk attempted to rearrange the established status quo of the traditional space industry. He did this by first becoming rooted in the social communities of the space industry through investing in unconventional launch vehicles and building SpaceX with personal funds as a Silicon Valley space company.

SpaceX uses unconventional launch facilities and reusable components for cost-effectiveness while securing commercial contracts. As a Silicon Valley space company, the organization quelled the notion that the space industry had not developed in the last 50 years. Aerospace companies faced little competition with higher, expensive products that never reached maximum performance. SpaceX's end-to-end modular engineering platform was created using unconventional launch facilities (Clark, 2013). Elon Musk's ambitions to transport humans to Mars shaped all decisions in the system architecture. Finally, commercial contracts with NASA and the U.S. military to develop technology to operate missions allowed SpaceX to become the first private spacecraft to dock with the ISS.

SpaceX Launchpad witnessed the explosion of four out of five of its Starship prototypes. Every time a rocket blows up, it affects the natural area surrounding Boca Chica, and pieces of machinery lie along the southern Gulf coast. A member of the art collective Las Imaginistas, aiming to connect officials and lower-income residents in the Rio Grande Valley, vociferously expressed the adverse effects of SpaceX in the area. The South Texas Border Community is concerned about land expansion in the testing area: "Any SpaceX expansion would be occupying more land considered sacred to the local indigenous Carrizo Comecrudo tribe." Residents face disruption every time they are told to leave their homes before a SpaceX launch.

In March 2021, Elon Musk encouraged people to move to the Brownsville area claiming that he had created new jobs in engineering, infrastructure design, and other sectors. Residents of Brownsville lamented, "The jobs being created aren't for us" (Salazar, 2021). The biggest concern is that the jobs in Brownsville are low-wage jobs. Even if the cost of living in the city increases, it would not force residents to leave their homes. Lastly, residents complained about beach access: "Now its control. You cannot get in or out whenever you want to. It's only when they allow it, based on what's happening at SpaceX" (Salazar, 2021). Boca Chica Beach is an integral part of the culture in South Texas, and SpaceX does not allow citizens to go fishing during launches due to security concerns. This case study examines SpaceX's history, highlighting the company's innovative strengths and weaknesses.

SpaceX is a tremendous source of inspiration for junior engineers, astronauts, and professionals, who can learn by working with a visionary company. Its founder allows employees to step outside their comfort zone and fuel their ambition and creativity. According to a representative of Recticel Flexible Foams, those working for Elon Musk must accept discomfort, "But in that discomfort is the kind of growth you can't get anywhere else, and it is worth every ounce of blood and sweat" (Karami, 2021). SpaceX has attracted global attention as it is the only private company capable of returning a spacecraft from a Low-Earth orbit to Earth. With the launch of Falcon Heavy, the world's most powerful rocket, SpaceX could achieve one of its goals:

developing highly reliable, reusable, cost-effective, reusable rockets (Trefis Team and Great Speculations, 2018). Elon Musk did not deny that SpaceX and Tesla can't fail, but that did not stop him from trying.

## CONCLUDING COMMENTS

This paper summarized Elon Musk's aspirations, conflicts, and milestones to grow his company, SpaceX, into a leading private commercial spaceflight venture to visit the moon and Mars. In addition, the approach used the case study methodology to develop my recommendations. In this methodology, different cases were considered to form an idea of the research to help its foundation according to the literature reviews from studies.

The primary recommendation from this case study is to continue to track SpaceX's achievements and be able to compare the economic expansion in the SLV market. In addition, to inspire readers to learn more about the space industry by providing examples of success achieved by SpaceX autonomy. Limitations in this paper include finding data from former and current SpaceX employees about their experience working for the company. Through SpaceX, Elon Musk created something unique, testing rockets innovatively. Elon Musk's career lesson became an example of perseverance. He proved that conventional wisdom and persistence are extremely important, and quitting should be considered only when forced (SpaceX, 2021). Future recommendations for SpaceX engineering teams are to focus on the resources of the Big Falcon Rocket. The space community and SpaceX, in particular, should be more committed to adhering to deadlines. For instance, at the announcement of Falcon Heavy in 2011, Elon Musk declared that the rocket would fly within "a few" years, but it took seven years until the launch (Wattles, 2018). In 2020, SpaceX continued the space shuttle's legacy by flying NASA astronauts to and from the ISS on American vehicles for the first time since 2011. SpaceX's vision is to embark on the next space adventure to achieve a human-crewed mission to Mars and ultimately establish a settlement on the Red Planet (Wattles, 2018).

SpaceX benefits the space technology sector through its innovative technological solutions. SpaceX's two strategies focus on helping NASA reduce the costs of technological innovations and provide multivendor options. Additionally, SpaceX focuses on reducing the cost of sending an astronaut into space and reducing expenditures on program development and spacecraft. 3D printing technology and reusable rockets allow SpaceX to reduce the costs of mass production (Wattles, 2018).

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# **CAN BUSINESSES SUCCEED WITH OPEN INTELLECTUAL PROPERTY? THE CASE OF TESLA, INC.**

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## **ABSTRACT**

Along with business efforts in research and development, history presents a tendency to patent and monopolize ideas. Moreover, when a business identifies a unique concept; it then seeks to remain the only business offering this innovative idea to make a fortune out of it. The issue of intellectual property rights has developed over history to the present, more sophisticated laws of patents that spread to all industries. The most dominant sector where patents and intellectual properties reigned was in the technology industry. However, today, it applies to many areas. Tesla Inc., however, has opened its patents to achieve a spread sustainability cause in the world. This is to many people, a difficult step, while it is supported by “The Great Reset”. One plausible question that one may ask is whether Tesla will gain or lose in its patent approach. Although patents are used by companies to maintain monopolies and essentially make a company benefit from its efforts, the authors of this paper content that businesses should refrain from the use of patents as they do not make any substantial contribution to the company's goals, as they are costly to pursue and maintain, and are the enemies of general societal progress.

**JEL:** M00, O34, O36, K20, L1, L17, L2, L21, L24

**KEYWORDS:** Intellectual Property, Intellectual Capital, Open Innovation, Regulation, Business Law, Market Structure

## **INTRODUCTION**

Companies typically use patents and intellectual property rights to guard their strategies and ideas against competitors. In this way, companies believe that by obtaining patents, that they can secure and remain the only players in the industry using these strategies or offering a particular product. Tesla Inc.'s CEO Elon Musk, in a 2014 conference, announced that the company would open its patents for use by anyone who, in goodwill, seeks to contribute to sustainability in energy consumption (Musk, 2021). Musk further went ahead to affirm his decision on the company's website and other subsequent interviews. In analyzing Tesla's case, this case study seeks to answer the following research question: Do companies lose by using an open patent policy? To answer this question, one would also be interested to know whether companies gain by sharing their patents. This study hypothesizes that: A company does not generally lose by sharing its patents. Furthermore, this study proposes that companies gain by offering their patents for access by others. Last, this paper contributes to the literature through the novel analysis of whether an open-I.P. policy has a negative on a company's sales. The remainder of this paper will provide a review of the literature, an analysis of Tesla's use of open-I.P., a discussion of data detailing Tesla's auto sales, suggestions for how companies should approach I.P. policy in the future, and a concluding section.

## LITERATURE REVIEW

Intellectual property rights and patents define the present and a significant part of the past of economic governance in the world. These concepts were introduced to enable people to own their ideas and inventions. The first patent that came into recording in the world was Filippo Brunelleschi in 1421 (Olwan, 2012). Brunelleschi was an inventor in Florence, Italy and sought a 3-year patent for a barge he manufactured and fitted with a hoisting gear. Over the years, intellectual rights and patent laws have evolved significantly. In the mid-20th century, especially, the U.S. recorded significant interests in intellectual property (Olwan, 2012). As the years progressed with advancements in technology, tech companies increasingly pushed for intellectual property protection and patents. Today, as Papageorgiadis & Sharma (2016) notes, there are sophisticated I.P. and patent laws in the world. This has been made to accommodate emerging technology products and services that include intangible assets.

The general view is that intellectual property rights are beneficial to companies and countries. Olwan (2012) writes that countries need intellectual properties to gain efficiency and protect their companies. The author cites that developed countries have developed strong I.P. laws than developing countries. Failure to implement string I.P. laws could be why these countries are not achieving as much development. Papageorgiadis & Sharma (2016), on the other hand, write that there has been an overemphasis on the creation of I.P. laws ignoring the need to strengthen their implementation. In other words, scholars and policymakers have insisted on the development of rules on intellectual property rights. However, minimal advancement has been made in the implementation and enforcement of these laws. Combining with what Olwan (2012) cites above, one could see a difference in how different countries develop and a difference also in how they implement I.P. laws. The view of these two sources, however, is generally beneficial to businesses and governments.

The reason for the creation of intellectual property rights is also apparent. Lamoreaux (2019) writes that I.P. laws help businesses get motivated to invest more in innovation, research, and development. In this way, patents represent the findings of companies and some of the strategies the company has spent a lot on and that it continuously benefits from. The cost of obtaining a patent ranges from \$20,000.00-60,000.00 USD. (Louisiana). Further, the typical patent application can take up to twenty-two months to be approved. (Gerben). Like in the pharmaceutical industry, companies spend much in research through the approval of drugs. In this way, pharmaceutical industries would like to recover their investments in research through the monopolization of drugs and strategies they use to remain profitable. As such, companies that would like to produce the same drugs or use the techniques that have been discovered by other companies need to obtain paid costly licenses Papageorgiadis & Sharma (2016). This helps companies that own these patents to recover some of the investments they have made in research and innovation. Besides recovery of first investments, these companies benefit financially. As a result, I.P. laws motivate companies to be more innovative.

Generally, intellectual property rights and patents help companies to gain a monopoly of knowledge and ideas. This is believed to be the security of companies not to be copied. Such factors in a company as its name, colors, and logo are registered and patented. This helps the company be easily identifiable and, through marketing, creates a brand value Papageorgiadis & Sharma (2016). Strategies and products companies sell are then patented in terms of ingredients and procedures used to make them. This helps companies to remain unique in their product lane such that no companies offer similar products. What remains in the market is only close substitutes for the product. Clients can then stay loyal to the company. While most literature focuses on the benefits of intellectual property, some scholars have seen the negative side of it. Lamoreaux (2019), in an article critiquing monopoly companies, writes that monopolization is created by the bigness of companies. According to the author, the greatness of companies has been an economic and political problem in America for a long time in history. The author writes that growing companies create monopolies that, in turn, may result in issues for society. An example of a company whose



expansion was not good for Americans was American airlines. The company offered predatory prices and forced other airlines in its routes Papageorgiadis & Sharma (2016). Later, the company raised its prices in ways where it had gained monopoly status. Since one of the reasons companies grow and gain monopoly is through I.P. and patents, then these policies are not suitable for society. This is where I.P. pledges come into play. (Contreras, 2021).

Critics of Tesla's decision posit that "open" I.P. is a misnomer. (Hill, 2016). The monopoly-like power that I.P. confers on its owner cannot simply be given away, and that Tesla would simply refuse to enforce its I.P. against those using it without a license. (Hill, 2016). Despite Musk's decision to open Tesla's I.P. in 2014, he applied for patent protection for the SpaceX project, possibly due to the variations in the electric car and space exploration industries. (Dineen, 2022).

In the present age, sustainability issues are at stake. Patents seem to drag or make slow efforts to make companies sustainable. Even sustainability issues have been a point for companies to seek patents and intellectual property protection. In this way, companies gain monopolization of protection of the environment and generally do not lead to the actual intention that it communicates to the public. Comstock (2018) writes that companies should reinvent and do the impossible. Things that others see as impossible, yet a forward analysis yields more benefits for the company. Shiva (2020), however, offers a negative through on open I.P. as proposed in the great reset, arguing instead that companies would spread out ideas that have negative consequences on the environment and massive destruction. The author's argument, however, does not logically convince the audience why the negative reasons for the shared patents would outweigh the good or positive influence. In other words, the author focuses only on the negative side of the content that is shared yield (what Robinson et al. (2021) call conspiracy theories). Shared patents as such could be potentially spread sustainability measures to help the organization to achieve their goals as well as supporting other companies for the attainment of the same purpose.

Environmental, Social, and Governance ("ESG") is a set of metrics that measures an organization's impact on the environment, its social consciousness and impact, and how its governance coincides with these areas. (Malhotra, 2022). ESG takes into account factors not included in typical financial analyses, such as human rights and supply chain management, impact on climate change, water usage, how an organization treats its labor force, and whether the organization's culture fosters innovation. (El-Hage, 2021). Studies have shown that ESG ratings produced by different ratings agencies often produce inconsistent results. (Chatterji et al., 2016; Yont et al., 2018). For example, in 2018, the ratings agency, FTSE, rated Tesla last among global automotive companies while another agency, MSCI, placed it first, and while Sustainalytics rated it toward the middle of automotive companies. (Allen, 2018). Divergent ratings among ratings can be traced back to the following factors: differing definitions of ESG factors (the theorization problem), the factors' compositions and statistical weights, and the methodologies to measure said factors (the commensurability problem). (Hawley, 2017). The theorization problem is derived from ratings agencies holding different views about which ESG factors are material to an organization's financial performance and their respective degree of materiality. (Dorfleitner, et al.). Some have argued that compulsory EDG reporting, administered by the Securities and Exchange Commission, could remedy these disparities in ESG ratings. (El-Hage, 2021).

## THE CASE OF TESLA

This section analyzes the change in Tesla's performance before and after the company opened its patents for others to use (2013-2021). This analysis is instrumental in establishing whether the company has either lost or gained from this approach. On 6 December 2014, Tesla DEC made a public announcement that opened the company's patent rights for others (Musk, 2021). The company echoes this on its website, explaining the reason why the company made this move. Musk explains that over the companies that he had worked for before he began his ventures, he has seen companies apply for patents, and he thought it

was a good idea. Musk further describes why Tesla went for patents immediately after they started the company. Tesla declared that other traditional automakers would use Tesla's ideas and use their already developed production lines to build many electric cars. This would then overwhelm Tesla Inc., then called Tesla Motors, which would risk the company's failure (Musk, 2021). However, the company reviews that even after the company opened its patents, other automakers make a tiny percentage in revenue from the sale of electric vehicles of their total sales. Also, the company cites that some automakers to date make no sustainable car. This means that by having an open patent policy, other traditional companies have not used the conventional manufacturing t threaten Tesla's Electric vehicle dominance.

The number of units the company has sold and the revenue the company has made over the years show a steady increase. In this way, the company has improved from the time the company opened its patents. Notably, the company sold 22,477 cars a year before opening its parents ("Tesla's Revenue 2008-2020", 2021). It then manufactured and sold 16,689 vehicles in the year that it opened its patents, a drop caused by challenges in the supply of batteries. Then the following year the company made 25,416 cars, a higher figure that is higher than any other year before then. In the subsequent years, the company made higher sales than the previous year.

Similarly, the company had seen a steady rise in revenue from \$15 million in 2008 when the car sold its first car to \$31.5 billion in 2020 ("Tesla's Revenue 2008-2020", 2021). Tesla became the most valuable auto manufacturer in 2021 when its market value hit \$795.8 billion. Despite the company offering its patents for the public and competitors to use, the company has not lost but instead gained even more attraction to stakeholders who have supported the business' rise.

## DISCUSSION

This paper analyzes Tesla's annual sales and revenues between years 2013 and 2021 ( see Table 1).

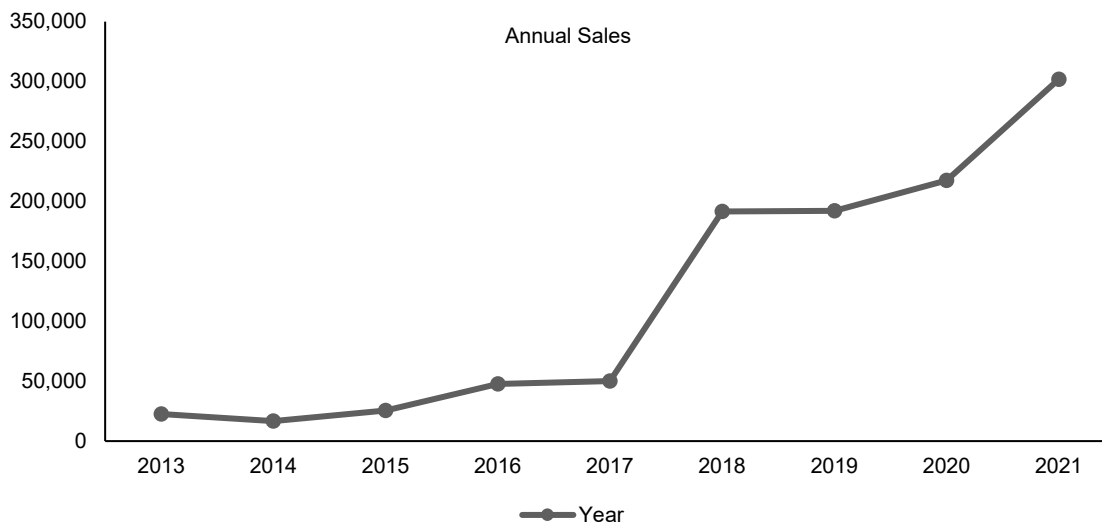
Table 1: Tesla Annual Car Sales from 2013 to 2021

Year	Sales
2013	22,477
2014	16,689
2015	25,416
2016	47,644
2017	50,145
2018	191,627
2019	192,250
2020	217,600
2021	302,000

*This table details Tesla's annual automobile sales between 2013 and 2021. The lefthand panel shows each year in question. The righthand panel shows the total number of Tesla automobiles sold. This table indicates that sales have not been negatively impacted by Tesla's open-I.P. policy.*

The corresponding line graph for the above table is shown in Figure 1.

Figure 1: Line Graph Showing Tesla Annual Car Sales from 2013 to 2021



This chart details Tesla’s annual car sales between years 2013 and 2021. This chart indicates that Tesla’s sales have not been negatively impacted by its open-I.P. policy.

Table 1 and Figure 1 above indicate that Tesla has recorded an increasing number of car production over the years. The company only recorded a decline in its production in 2014. However, it is essential to note that Tesla closed its financial year on 31 December (“Tesla’s Revenue 2008-2020”, 2021). This announcement was, however, made in December of this year, within the last month of the fiscal year; this means that this was not a contributing factor to the decline of sales in this year, the first year such effect should be expected is in 2015 as we advance. Instead, a rise in sales is seen in the following years, especially which is increasingly steeper in 2015 to 2016. Thus, this open patent policy did not affect the volume of production for the company. Table 2 shows annual revenues for Tesla from 2008 to 2021.

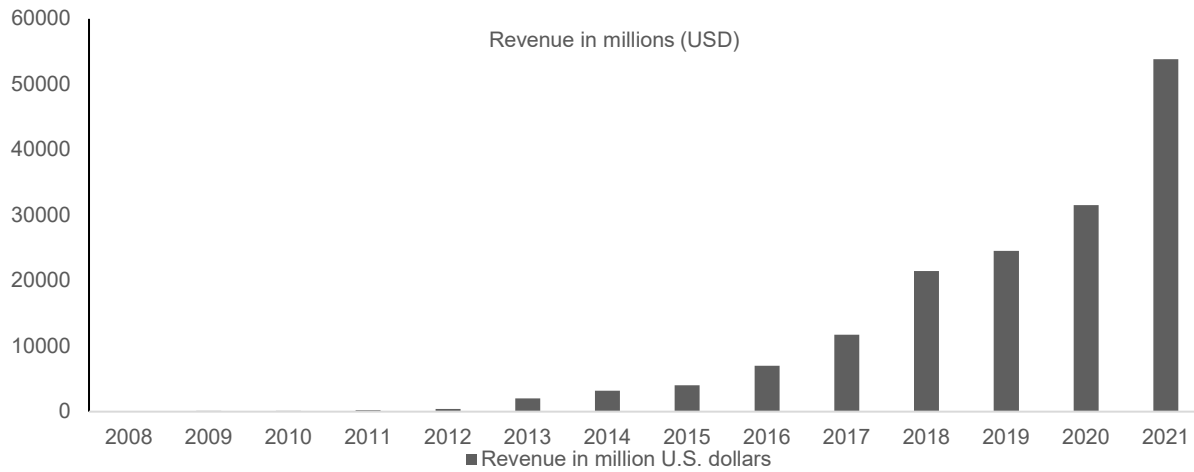
Table 2: Tesla Yearly Revenues from 2008 to 2021

Fiscal Year	Payment in Millions (USD)
2021	53,823
2020	31,536
2019	24,578
2018	21,461
2017	11,759
2016	7,000
2015	4,046
2014	3,198
2013	2,014
2012	413
2011	204
2010	117
2009	112
2008	15

This table details Tesla’s revenue between the years 2008 and 2021. This lefthand column lists each fiscal year between 2008 and 2021. The righthand column lists Tesla’s revenue for each respective year between 2008 and 2021. This data shows that Tesla’s revenue increased each year following its adoption of open-I.P.

Figure 2 shows the trend of annual revenues Tesla has made over its history.

Figure 2: Tesla Historical Annual Revenues from 2008 to 2021



*This graph shows the trajectory of Tesla’s revenue between the years 2008 and 2021. This data shows that Tesla’s revenue increased each year following its adoption of open-I.P.*

Table 2 and fig 2 above show a general rise in revenue the company has made over its history. The company began by selling its first car in 2008. Ever since the company has seen its revenues grow exponentially. Again, before the policy took effect in late 2014, the company made little profits; the period post-2014 has recorded even higher payments (“Tesla’s Revenue 2008-2020”, 2021). While this study does not investigate whether this policy helped boost its revenues, it finds that this policy did not affect the revenue growth of the company.

**A PATH FORWARD**

The data tends to indicate that, at least in the automobile industry, businesses that adopt an open-I.P. policy will not suffer from decreased unit sales or revenue as a result. Tesla’s open-I.P. policy should serve as guidance for businesses considering taking a more lenient approach toward its own I.P. rights. Though it is undetermined whether I.P. law will evolve in a more restrictive or less restrictive direction over time, companies will have the option to have a lenient attitude regarding their own I.P. Therefore, if a company decides that open-I.P. is in its best interest, then the case of Tesla can be instructive. Regarding Tesla’s use of patents in the future, Tesla will likely continue to apply for patents to share its technology with others and spur open innovation. (Takenaka, 2019). One company has already done this. (Contreras et al., 2018). SolarCity, a U.S. technology company, allowed developing nations to utilize its I.P. free of royalties. (Contreras et al., 2018).

**CONCLUDING COMMENTS**

Many companies apply patents and intellectual properties to protect their ideas from being copied by their competitors. In doing so, these companies create monopolies of knowledge, ideas, and other elements of intellectual property. Although businesses think that intellectual properties and patents are beneficial to them, there are many reasons not to use them. Lamoreaux (2019) demonstrates how companies are harmful to the public by the creation of monopolies. Data of Tesla’s unit sales and revenue from 2008-2021 was analyzed to determine whether its open-I.P. policy negatively impacted sales or revenue after 2014. This data on Tesla’s unit sales and revenue shows that Tesla did not suffer in either sales or revenue after opening its I.P. to outsiders. Rather, this data indicates that Tesla opening its I.P. was at worst neutral and at best

beneficial. The data shows that Tesla has not lost, but rather gained, in sales and revenue after adopting a more lenient I.P. policy. Thus, the hypothesis that companies do not lose sales or revenue from open-I.P. holds. Managers in the automotive industry (and possibly among others) could view these finds as instructive when considering revisiting their organization's I.P. policy.

There are two limitations that should be addressed. First, the gain in Tesla's unit sales and revenue could be attributed to factors other than open I.P. For example, factors such as improved supply chain management and increased production efficiencies could have boosted Tesla's sales and revenue. Second, a change in consumer preferences could have steered toward Tesla, boosting its sales and revenue. If consumer wealth increased along with consumers' desire to purchase automobiles seen as "elite" by these consumers, then more Tesla automobiles could have been sold as a result. In any event, these limitations show that open-I.P. policies may not be a sales or revenue generator in and of themselves.

By sharing its patents, Tesla has been able to enhance its intended mission of improving the use of sustainable cars (Musk, 2021). This has also enhanced its image to the public as a responsible company as it sacrifices its bit for profits through patents for suitability cause. Comstock (2018) encourages business leaders to take on those paths that others do not follow. Such ways, when they are combined with forecasted analysis, could present excellent pillars of success.

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