

## Chapter 2

# Towards a value creation and appropriation logic for elite business models

Having reviewed the literature and determined what elites are and ‘what elites do’, we will now examine the central focus of elite agency—the elite business model—through the development of seven more propositions (5 to 11). The first two of these, relating respectively to elite rationality and income maximization, establish the behavioral logic of elites (2.1). This is followed by an in-depth look at a central set of three propositions on the elite business model (2.2). A business model has principals and stakeholders, both producers and claimants of value. Their interactions are understood within the value creation-appropriation (VCA) framework, which has been advanced in the strategic management literature (e.g., by Brandenburger & Stuart, 1996; Amit & Zott, 2001; Lepak, Smith, & Taylor, 2007; Di Gregorio, 2013; Garcia-Castro & Aguilera, 2015). The VCA, with its stakeholder view of strategy (Freeman, 1984; Donaldson & Preston, 1995), is fundamental to this work and is used to elucidate the elite business model. Bargaining power endowments (Coff, 1999; MacDonald & Ryall, 2004; Moatti, Ren, Anand, & Dussauge, 2015) are a key analytical device in this regard. The closing section (2.3) first presents a proposition to contextualize value appropriation and then initiates the operationalization of this work’s conceptual elements into sustainable value creation (SVC) measurements (see the equations in Table 2.4) by asserting, for instance, that elite business models operate at measurable positions on a conceptual ‘business model value creation spectrum’ ranging from value creation to value extraction.

## 2.1 Propositions on the behavioral logic of elite agency

Elite behavior is modeled on the basis of neoclassical insights (Proposition 5), which leads to the residual income maximizing elite business model as the defining aspect of elite identity (Proposition 6).

### 2.1.1 Proposition 5: Elite behavior maximizes utility and is potentially sustainable

Under neoclassical assumptions (e.g., Becker, 1993) of rational choice theory (RCT), which are congruent with the ideas of utilitarian political economists like Bentham (1781/1970) and Mill (1863/2001), agents in the economy have an orderly and stable hierarchy of preferences and are premised to maximize utility. Critically assessed as the “default mode of social theorizing” (Williams, 2000), “rational choice consists simply of selecting that alternative whose consequences rank highest in the payoff function”

(Allison & Zelikow, 1999, p. 18). The ‘elite utility function’ has also been conceived in RCT terms, specifically as income maximization and consistent with the “elite’s lifetime income maximization problem” of Wang (2021). The value creation-appropriation (VCA) framework (Brandenburger & Stuart, 1996; Coff, 1999; Amit & Zott, 2001; Lepak, Smith, & Taylor, 2007; Di Gregorio, 2013; Garcia-Castro & Aguilera, 2015) provides a theoretical foundation for elite agency that is consistent with RCT, as bargaining power differentials enable utility maximizing value appropriation. Residual income (a form taken by appropriated value) and power are therefore interchangeable (at conversion rates determined by the elite business model). Bargaining power enables elite income maximization.

Elite agency in the ETED is characterized by a utility function where residual income is the highest ranked preference (because agency is no longer *elite* the moment that significant residual income flows cease to accrue). This position has specific theoretical bearing. The agency versus structure debate in organization studies is pivotal to this inquiry (see Chapter 3) as the residual income maximization utility function of elites is posited to be a cause of institutional change (effected through the dynamics of intra-elite contests, see Propositions 16 or 20).

In Chapter 4, the microfoundational framework of institutional theory and embedded agency will be discussed in the context of institutional change by elite agency. Williamson (2000), using the four levels of the social analysis framework for the economics of institutions (see Figure 3.1), proposes neoclassical marginal analysis for the micro-level of the firm (level 4). In the ETED, the micro-level analysis is applied to the elite business model (as a firm is a bundle of business model activities), not to individual members of the elite (even when the agency of specific elite individuals is indistinguishable from that of their firm or its business model). It is a *leitmotif* of this work that elite business models appropriate both the value that they create and the value they do not in pursuit of residual income. The latter is known as rent seeking in economics, and is referred to in this inquiry as either value extraction or second-order transfer activity (see Table 2.3); technically value (turned into residual income or revenue) that is transferred *into* a business model. This ‘value appropriated but *not* created’ is operationalized as ‘value transfer-IN’, mirrored by an offsetting value ‘transfer-OUT’ from the counterparty, i.e., ‘value created but *not* appropriated’. The residual income maximization utility function of elites drives behavior (elite agency) in the context of elite business models that is tractable under RCT assumptions.

This leads to the question of whether elite agency conceived on a RCT footing can be consistent with sustainability? The answer references Olson (1993, 2000) and his bandit metaphor, since, consistent with the RCT premise, elites can inherently make the transition from “roving bandit” to “stationary bandit” if they adjust their temporal perspective when they seek to maximize income. On this journey, the business model, driven by the elite utility function, is transformed by the sustainability notion.

The income maximization utility function of elites must be qualified by the applicable temporal perspective, which is derived from circumstance, conditions in the political economy, and personal choice. Acemoglu and Robinson (2006) suggest that

secure elites, such as those in 19<sup>th</sup> century Prussia or contemporary China, will modernize and increase their country's production function in order to extract more in the future. In contrast to the Olsonian "roving bandit", the "stationary bandit" (elite coalition members anchored in a given political economy whose business models have restricted mobility) will not maximize income with a short-term fixation on appropriating all extractable value (from stakeholders, including non-elites), because non-elite stakeholder value creation needs to occur for future value appropriation to be feasible. Borrowing Dercon's notion in *Gambling on Development* (2022), this type of "elite bargain" would be both rational and long-term. Clearly, not all elites are stationary or have the cohesion, ability, or appetite to realize such bargains; much has been made of Latin American, African, or Eastern European potentates who fit Olson's description of the roving bandit, earning fortunes in their countries of origin while transferring that wealth to their bases in Miami, Paris or London. The more stationary (and secure) an elite is, the less short-term the income maximization horizon will be and the greater the incentive to self-constrain present extraction and transfer-IN from non-elites. In short:

If the stationary bandit successfully monopolizes the theft in his domain, then his victims do not need to worry about theft by others. [ . . . ] With the rational monopolization of theft—in contrast to uncoordinated competitive theft—the victims of the theft can expect to retain whatever capital they accumulate out of after-tax income and therefore also have an incentive to save and to invest, thereby increasing future income and tax receipts. (Olson, 1993, p. 568)

In summary, residual income maximization atop the hierarchy of preferences in the elite utility function optimizes a trade-off between two variables, each associated with a discrete time horizon: firstly, short-term residual income flows (that serve, among other purposes, the satisfaction of present consumption); and secondly, long-term wealth stocks (that generate income flows over time and are consistent with investments to secure elite status across generations). Elites that are unwilling or incapable of creating value will give precedence to immediate income. To augment the stock of wealth (i.e., accumulated residual income flows), the model stationary bandit must, on the other hand, restrain excessive extractive short-term transfer-IN from stakeholders and non-elites (to avoid these opting for 'exit' or other unsustainable responses, see Table 5.1). The long-term thus requires both a degree of value creation through business models that enhance the economy's production function and limits to the amount of transfer-IN from stakeholders (i.e., value extraction below the level that bargaining power differentials may allow). Given that such transformational agency will comprise inclusive transfer-OUT from elites to non-elites, positive externalities, and the creation of public goods, do stationary elites deserve the 'bandit' moniker at all? Rational utility maximizing elite agency with a long-term orientation makes the political economy sustainable.

The RCT foundation of this inquiry introduces the key notion of sustainability. The ETED purports that elite income maximization and long horizons are associated

to sustainability, a position that is consistent with the historical roots of the notion. The “term was first coined several hundred years ago by a German forester, Hans Carl von Carlowitz, in his 1712 text *Sylvicultura Oeconomica*, to prescribe how forests should be managed on a long-term basis” (Scoones, 2007, p. 590). From these origins in addressing a narrow business model (forestry), the concept eventually gained widespread attention through Gro Harlem Brundtland’s milestone report for the United Nations, *Our Common Future*. The now generally accepted definition of sustainability focuses, like the elite coalitions seeking to maximize wealth through value creation and risk origination, on the long term: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987).

### 2.1.2 Proposition 6: Elite identity is driven by residual income

Proposition 6 tests the RCT premises put forward in Proposition 5 to address elite identity. Williamson’s social analysis framework alluded to, but did not further pursue, a “level zero [. . .] the level in which the mechanisms of the mind take shape” (Williamson, 2000, p. 600). However, if “psychology and sociology of identity” was the decisive “economic model of behavior” (Akerlof & Kranton, 2000, p. 715), to what extent is elite psychological and sociological identity a behavioral driver distinct from mere RCT income maximization? Does non-economic identity, possibly fueled by attendant narratives, figure in elite utility functions? Does it, for instance, inform Maslowian human needs (1943) like reputation, prestige, and recognition from others—all part and parcel of the leading theories of human motivation? Why do status threats and the fear of losing power condition the rational decision-making of elites (Renshon, 2015)?

In *The Prince* (1513/1998), Machiavelli asserted that in the political arena the “acquisition and maintenance of power” is as important as its seizure (Spackman, 1990, p. 144). More specifically, in the case of Japan’s elites, researchers note: “The primary goals of [*keiretsu*] are power, wealth, and status, and [*keiretsu*]-building for prestige is an ongoing preoccupation of the elite in Japan. A focus all the rich and powerful everywhere try to practice” (Kim, 1996, p. 342). Elite behavior to preserve acquired or inherited elite status tends to manifest itself as a “whatever it takes” response in all three of the contest arenas of the political economy. The relevant question though is whether elite status is motivated by psychological and sociological identity, or whether the core of individual or family elite identity is instead economic, revolving mainly around the residual income generating elite business model. In other words, can elite agency be conceived of beyond residual income maximization and include non-economic identity elements? If not, then “status” at the macro level (Piazza & Castellucci, 2014) and Machiavelli’s power are simply instrumental means for the elite business model (and not objectives *per se*), while identity and the “mechanisms that shape the mind”—Williamson’s (2000) “level zero”—can be safely ignored for theorizing about elite agency.

Notwithstanding psychological and sociological factors or deeply anchored personal and family narratives (e.g., a common genealogy, a religious ideal) the ETED posits that elite identity is primarily driven by the residual income generating elite business model. This assertion has equivalence with Winters' (2011) claim that the prime concern of oligarchs is to engage in "wealth defense". This conjecture is confirmed if elites, when presented with a dichotomy between their non-economic identity and residual income maximization, choose the latter (controlling for non-elites facing equivalent choices). That is, if the elite utility function preference for income maximization is ranked higher than alternative preferences associated with the psychological and sociological integrity of elite identity and its original narrative. A series of historical examples are offered below: members of communist elite families becoming business owners, former slaves transforming themselves into slaveholding elites, and Calvinist elites converting to Catholicism.

A selection bias operates against elites endeavoring to preserve identity and the related narrative integrity that is associated with expired (i.e., bereft of residual income generation potential) elite business models. Loyalty to the narrative that propelled coalitions or families to elite status leads to them being captives of the past, trapped in an existential *cul de sac*. Thus, communist cadres in Vietnam's state sector leveraged their centrality in political economy networks to become entrepreneurs and leaders of listed firms (Fujita, 2020). Since Liberia's independence in 1847, the descendants of the freed and repatriated African slaves (the Americo-Liberians) "completely dominated all the country's institutions" (from 1847 until their violent overthrow in 1980), creating an elite identity around freedom but utilizing elite business models that brutally focused on residual income maximization even as these evolved—from slaveholding (until the 1920s) to wage repression (Robinson, 2010, p. 7–8). The Good King Henry of Navarra (Henry IV of France) converted to Catholicism because "Paris is well worth a Mass", swiftly overcoming "religious convictions, promises of fidelity to Calvinism, and reluctance to yield to the demands of others" (Dickerman, 1977, p. 2). Apparently, running the royal business model was the elite identity that trumped the supposedly non-negotiable Calvinist narrative.

## 2.2 Propositions on the logic of elite business models

The inquiry has now proposed a residual income maximization driven elite utility function (Proposition 5), where the elite business model defines elite identity ahead of any other psychological and sociological considerations (Proposition 6). Residual income maximization and the optimization of short- and long-term perspectives occurs in all elite business models that are now examined in detail as being central to elite agency (Proposition 7). Their capacity to generate all-important residual income is explored through the value creation-appropriation (VCA) framework (Propositions 8 and 9), a process that will enable the measurement of sustainable value creation and

extractive transfers at the micro-level, and serve as the foundation for aggregate measurements of the meso-level elite system (such as elite quality) that impact the macro-economy and affect economic development.

### 2.2.1 Proposition 7: The elite business model is the locus of elite agency

Proposition 7 places the elite business model at the center of elite agency. Such a position would appear to address concerns that elite theory has “turned away from an emphasis on material power” (Winters, 2011, p. 31). Yet wealth is not the business model, the conceptual element that theoretically grounds the sustainable value creation of elites at the micro-level. Drucker (1994) introduces the concept of “what a business will and won’t do” and while he never defined “business model” *per se* in his theory of business it is understood to be “assumptions about what a company gets paid for” (Ovans, 2015). A business model is the engine of residual income generation (and eventually wealth stocks), while at the same time “a useful representation of how the organization creates value through transforming and transferring matter” (Arend, 2013, p. 391), and “a template that depicts the way a firm conducts its business” (Zott & Amitt, 2013, p. 404). More granular conceptualizations include the role of the principal and the principal’s counterparts—the stakeholders (Coff, 1999; Brandenburger, 2002; Zott & Amitt, 2013; Garcia-Castro & Aguilera, 2015). The concept of stakeholders (Freeman, 1984; Donaldson & Preston, 1995) is necessary to link the business model to value creation and value extraction.

The principal-stakeholder perspective of the business model describes the system of interdependent activities that are performed by the firm and its partners and the mechanisms that connect these activities to each other (Zott & Amit, 2010). Zott and Amitt further specify that “business models center on the logic of how value is created for *all* stakeholders, not just how it is captured by the focal firm”, i.e., the principal (2013, p. 404). By combining these ideas on business models with the reviewed literature on elites, the elite business model conceptual element is defined for the purpose of this inquiry:

Elite business models are the largest residual income and reward business models in the economy and constitute a system of interdependent activities that are performed by a particular principal, as part of an elite coalition, in relation to its stakeholders. An elite business model describes *how* the principal and the stakeholders respectively create and appropriate value through division of value strategies to generate proprietary residual income, and associates with discrete sustainable value creation.

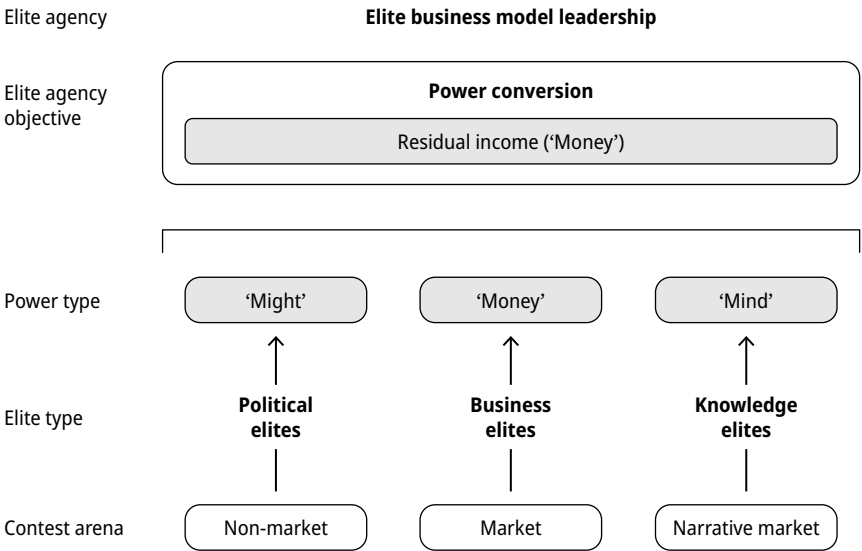
If elite business models are the locus of elite agency, what makes them feasible and successful? Elite business models first require ‘elite coordination leadership’ to accumulate power (see Figure 1.2) and subsequently ‘elite business model leadership’ to convert this power into residual income (see Figure 2.1) that is generated through successful value appropriation activities (also conceptualized as applied coordination capacity, see

Figure A5.3a). Some of the value appropriated is created, while some is extracted as a transfer-IN from the original value creators (value appropriated but *not* created). How elites create, appropriate, and transfer value is illustrated through a rather extravagant case study depicting the interdependent activities of an elite business model: Coca-Cola's operations in Libya during the period prior to the ousting of Colonel Gaddafi in 2011 (based on Fritschle, 2006; Hosenball, 2011).

In WikiLeaks one reads that the Libyan ruler “speaks out publicly against government corruption, but the politically-connected elite has direct access to lucrative business deals. Qadhafi son Mohammed heads the Libyan Olympic Committee that now owns 40% of the Libyan Beverage Company, currently the Libyan joint venture Coca-Cola franchisee” (Fritschle, 2006). This particular elite business model required effective elite coordination leadership to manage multiple stakeholders and elite business model leadership across disparate activities to convert power into income. The latter form of leadership was visible in market arena wins that included the production of the bottled drinks according to Coca-Cola standards and their effective distribution and marketing. Elite coordination leadership, on the other hand, entailed wins in the non-Libyan narrative market arena: the bottling deal had to somehow be acceptable to Coca-Cola, the US Embassy in Libya, and the International Olympic Committee. Wins in the domestic political non-market arena were equally crucial, and meant that the heart of Colonel Gaddafi had to be won over (and here, in a reversal of fortune, Muhammad Muammar eventually lost out to his brother, Mutassim, in a dramatic showdown that will be presented as an example of intra-elite contests in Section 3.3.1).

The Libyan Coca-Cola case brings about a more sophisticated analytical perspective introduced through Acemoglu and Robinson (2000, p. 129) who develop plausible models to explain “why landed elites in Russia and Austria-Hungary, but not Britain and Germany, decided to block innovations and the railroads”. Their examples not only raise questions about elite business model leadership but about leadership at the elite system level (expounded on in Section 7.2.4) and what happens when elite business models fail to transform. The authors' explanation for the lack of transformation in Russia and Austria-Hungary is “the threat that industrialization posed to political power, not to economic rents” (Acemoglu and Robinson, 2000, p. 129). This inquiry argues that if these elites had invested in and transformed their business models, new sources of power would have more than compensated for the erosion of their original political power bases caused by the new institutional arrangements necessary for industrialization. Political power is instrumental and hence secondary; it can be gained, lost, and regained with residual income. The Romanov and Habsburg elite systems retained their out-of-date extractive transfer models because they lacked transformational leadership (a conceptual element that is developed in Section 7.2.4) and obviated that knowledge also affords bargaining power. The comparative developmental and geopolitical fate of the two empires demonstrates that if incumbent elites can't or won't surf fixed-investment (medium-run Juglar) waves and technological (long-run Kondratieff) waves, then rival emerging domestic or foreign elites will do so and make them obsolete.

Political power is meaningful inasmuch as the non-market contest arena contributes to the overall power endowment at the disposal of elite business model leadership. Elite business models rely on power in all its forms (again, see Figure 1.2): the economy power domain (‘money’) works in close combination with the politics power domain (‘might’) and the society power domain (‘mind’). Market arena wins (in the economy) are complemented by wins in the non-market arena (in politics) and narrative market arena (in society). Successful elite business model leadership has bases in all three of these power domains (economy, politics, and society), secured in the respective contest arenas (market, non-market, and narrative market). Ultimately and as depicted in Figure 2.1, the accumulated power is converted into its most fungible form, residual income/profits or ‘money’, which can be disposed of at the pleasure of elite business beneficiaries and is the primary local entropy reduction mechanism in the modern world.



**Figure 2.1:** Elite business model leadership: Converting power into residual income.

For Mills (1956, p. 9) “the elite are simply those who have the most of what there is to have, which is generally held to include money, power, and prestige—as well as all the ways of life to which these lead”. The ETED’s suggested tripartite power structure for elite contests takes no position on which power type reigns supreme: whether economic ‘money’, political ‘might’, or social ‘mind’, the decisive power type depends on the business model and the given political economy context (as depicted in the overview of elite agency in Figure A5.1). A headline in *The Wall Street Journal* provides material for analysis of a specific intra-elite contest (later dissected in Table 3.1), “Keystone XL Oil Project Pledges Zero Carbon Emissions: Controversial pipeline would be powered by renewables, built by union labor in bid to avoid ax [sic] from Biden” (Puko, 2021). Eventually,

the anticipated win in the narrative market (in the citation, the sustainability and labor stakeholder narratives) did not materialize, and there was no win in the political non-market (the Biden Administration cancelled the project) that would then have led to the ultimate business win in the market for energy transportation (i.e., an efficient pipeline to dislodge the established oil-by-rail model). In this case, the power domain of politics was the decisive arbiter. However, in principle, elite coordination leadership needs combined wins in all three of the power domains (economy, politics, and society), even if for some models one of the three corresponding contest arenas is more relevant than the others. For example, society's narrative market arena is more relevant for the Vatican, the political non-market arena for labor unions, and the economy's market arena for smart phone manufacturers. Whatever the primary domain, power eventually needs to be converted into residual income (profits). 'Money', not as power but as a freely disposable residual, is the final objective of elite business model leadership.

Successful elite agency includes leadership to accumulate power and then convert it into income through a business model that both creates and appropriates value. Some elite business models are comparatively more competitive and innovative and so are able to generate more value, including for stakeholders (e.g., by having customers with a higher willingness to pay). The 19<sup>th</sup> century British and German elites mustered the leadership to transform and run the elite business models of industrialization, while the Russian and Austrian aristocratic elites did not and continued to operate less profitable and more extractive pre-industrial and agricultural empire models. The 'inextinguishable value creation option of elites' is the (leadership) premise that elites can always transform business models towards ever more sustainable value creation positions (and forgo value appropriated but *not* created). The discussion on business models now proceeds with an examination of the key enabler of value appropriation, the all-important strategic management notion of bargaining power.

### **2.2.2 Proposition 8: The elite business model is characterized by principal-stakeholder bargaining power differentials required for value appropriation**

Proposition 8 is a lengthy disquisition with new conceptual elements and logical leaps. After a brief literature review that stresses collaborative value creation, the starting point is the definition of value. Then the principal-stakeholder relationships—including between a principal and 'nature'—turn value into prices in a process that is mediated by an effective division of value strategies. Value appropriation relies on bargaining power and its differentials. Two discrete sources of bargaining power ('knowledge' and 'political economy know-how') are then established with their respective links to development. Specific applied challenges for economic growth are also articulated through the 'the Amazon dilemma' of the political economy and its hypothesized constituents, the 'elite vs non-elite knowledge gap' and the 'elite power vs value creation gap'.

The ultimate source of residual income is 'value', which has been discussed earlier in the context of the business model but not precisely defined. Clarity about what value

actually constitutes is essential. Properly answering this question would require inputs from a wide range of disciplines, from anthropologists to neurobiologists (Arend, 2013, p. 398). An ethical perspective would suggest that: “A practical inference framework sees value creation as a creative process of practical reasoning guided by values” (Donaldson, 2021, p. 21). Identifying “real value creators” is not straightforward and to some, productive and unproductive activities in the economy cannot easily be ascertained if price is the only measurement criteria, making judgments (and measurements) on value subjective (Mazzucato, 2018, 2019). At the same time, helpful perspectives on value figure notably in early economic discussions. Adam Smith “gave quite a prominent place to value in his system [with a] significant portion of Book I of *The Wealth of Nations* [devoted] exclusively to this subject”, but while he focused on its measurement he did “not offer a general theory” of value (Gupta, 1960, p. 105).

Smith’s “so-called *additive* theory of value [. . .] argues that value of a commodity is determined by adding up independently determined wages, profits and rent”, a notion which has been assessed critically (Sinha, 2010, p. 29). For instance, Schumpeter termed it “a cost-of-production theory” (Henry, 2000, p. 1). Stanley Jevons’ marginalist approach highlights that “value depends solely on the final degree of utility” or “upon the number of persons who find it useful” (1871, pp. 159, 160) and hence is subjective. The same is true of Menger’s theory of value where “value does not exist outside the consciousness of men” (1871/2007, p. 121). Smith’s “rejection of utility as determinant of value” is critically viewed in many quarters (Douglas, 1927, p. 53). Utilitarianism remains central to the “current understandings of ‘value’” with its roots in the work of Jeremy Bentham (1781/1970) and J. S. Mill (1863/2001). The former had a “focus on value as measured by specific aggregate measurements of pleasure and pain”; for the latter, value followed the “greatest happiness” principle (Harrison & Wicks, 2013, pp. 99, 100). Further to the above criticisms, others assert that Smith’s theory is simply incomplete (e.g., Mazzucato, 2018). Yet Smith’s understanding of rent as “price in excess of the cost of production” led to Ricardian rent, “a surplus in the form of a differential”, and eventually to Henry George (1898), who closed the classical position by conceiving of rent as an “unearned increment” (Lackman, 1976, p. 287).

The classical rent theory “forged the concept of costless surplus, which then meant returns earned above another’s return without an increase in ‘real’ cost. Later, the surplus was defined in terms of opportunity cost analysis” (Lackman, 1976, p. 298). This starkly contrasts with Sen (1987, 1999b) who suggests social and individual perspectives of value “beyond aggregate utility” including “the creation of capabilities essential to development and living a good or happy life” (Harrison & Wicks, 2013, p. 100). The contemporary Left variously argues that in its present form, the neoclassical, marginalist, utilitarian, price-centric understanding of value has led to shareholder-centric reductionism and a variety of financial capitalism that dangerously overlooks society’s real productive forces (Mazzucato, 2018).

Marx’s theory of value (1867/1959b) has a “classical residue” but is distinct, positing that the “exchange value” of all commodities should be reduced to labor, their

common property (Itoh, 1976, pp. 307, 308). While undoubtedly also being a reductionist over-abstraction, the Marxist edifice emphasizes labor value appropriated but *not* created by capitalist principals as an unearned distributional rent—or “exploitation” (Shelby, 2002). Cohen (1979, p. 342) lays out the “Traditional Marxian Argument” as follows:

- (5) Labor and labor alone creates value.
- (6) The laborer receives the value of his labor power.
- (7) The value of the product is greater than the value of his labor power.
- ∴ (8) The laborer receives less value than he creates.
- (9) The capitalist receives the remaining value.
- ∴ (10) The laborer is exploited by the capitalist.

Non-orthodox approaches to value also exist, even if they end up referencing utility. Beinhocker (2006, p. 303) takes the ideas of Nicholas Georgescu-Roegen (1971, 1986) to advocate an understanding of value creation based on economic transformations and transactions under three combined conditions: that they are thermodynamically irreversible; that they reduce local entropy (disorder) in the economic system (though entropy increases globally); and lastly, that the newly high-ordered complexity is fit and useful for the purposes of humans. Notwithstanding the discussions of classical, Marxist, and other economists and their takes on value, labor, rent, exploitation, distribution, costless surpluses, or unearned increments, the analysis and subsequent operationalization of value for the purposes of this inquiry now references the strategic management literature because this has conceptualized value in a manner that is most tractable when the business model is the prime object of analysis.

One might start with two images derived from Porter’s (1980) model of “the whole vertical chain of economic activity”: first, a “value pie” created by firms together with their buyers and suppliers, and subsequently the “pie’s slices”, as value is divided up among the different players (Brandenburger, 2002, p. 58). The principal-stakeholder perspective is also important to consider, with value defined here by Harrison and Wicks (2013, pp. 100–101) “broadly as anything that has the potential to be of worth to stakeholders”. Value is determined by market prices, but the idea of worth must also include non-economic dimensions as is pointed out by Aspers and Beckert (2011). Garcia-Castro and Aguilera’s generic notion of value explains what the pie is made up of: “the sum of the consumer and the producer surpluses” (2015, p. 137). Evidently, value may consist of new surpluses such as those generated by activities associated with productivity gains. The streamlined elucidation of the ‘value’ conceptual element for the purposes of the ETED then becomes:

Value is everything that humans determine is worth appropriating.

Value appropriation (the pie’s slices) at the firm (the elite business model) level will be scrutinized in Proposition 9 through the value creation-appropriation (VCA) framework, as described by Garcia-Castro and Aguilera (2015, p. 137–138). Value is claimed at the negotiating table (Bazerman, 2001, p. 116) and business models that fail to appropriate enough value (a sufficiently large slice of the pie) will not generate the ex-

pected or necessary (for survival) positive residual income (profits) for their principal (a particular firm or elite). The VCA framework becomes pivotal to this inquiry because of its fundamental focus on the principal-stakeholder perspective and division of value strategies (Brandenburger & Stuart, 1996; Brandenburger, 2002; MacDonald & Ryall, 2004). It should be noted that value creation and appropriation are “intertwined” (Di Gregorio, 2013, p. 40). This inquiry exposes the contradictions of their association in the political economy and how mismatches can affect development.

To Brandenburger and Stuart (1996), the stakeholders of a principal’s business model consist of two types: suppliers who sell inputs, and customers or buyers who pay for the principal’s business model’s outputs. For Mazzucato (2018), value creation is a “collective process” of stakeholders. For Brandenburger (2002, p. 58), the principal (the organization running the business model) and both stakeholder types (again, suppliers and customers) jointly create Porter’s value pie. Table 2.1 illustrates joint value creation by describing the four types of agents: the principal, the two habitual stakeholder types—customers and suppliers—as well as the ‘nature’ stakeholder.<sup>20</sup> Their division of value strategies and their respective value creation and appropriation objectives are detailed in relation to each other.

Including nature as a stakeholder requires clarification, as this is uncommon in the strategic management literature. Nature obviously has, exceptions aside, no legal agency *per se* in the economic system. Can the agency of a nature stakeholder therefore be included in principal-stakeholder analysis within the VCA framework? Such a question parallels that of Starik, who asked: “Should Trees Have Managerial Standing?” and contended “that the non-human natural environment can be integrated into the stakeholder management concept” (1995, p. 2007). Laine (2011) argues that the natural environment should simply be included as a stakeholder. It is beyond evident that nature offers value and ecological resources to the principal, while also providing the material reality for all economic and human activity. Just as governments receive taxes as a *quid pro quo* for the valuable services they provide to firms, it can be argued that firms ought to pay nature for the even more fundamental and valuable services they receive in the form of air, water, soil, or life forms—and a sufficient amount to at least ensure their full regeneration. Principals need “environmental services” (Swallow et al., 2009) from nature to function. The extension of the VCA logic also means that nature (or its custodian entity in the legal system) should appropriate value from the relationship in return for its services, just as any other stakeholder does in division of value processes.

The ‘nature stakeholder’ assumption is thus introduced to the ETED in the context of the VCA framework and will be operationalized in the same way as other principal-

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**20** Professor Martin Nerlinger, University of St.Gallen School of Finance and Swiss Finance Institute, reviewed the sustainable value creation conceptual element applied to the firm and provided guidance on its operationalization, such as suggesting that nature be integrated as a discrete stakeholder type in the division of value strategies analysis and linking the theory to specific literatures like welfare economics. His inputs on the formalization of the sustainable value creation equations (see Table 2.4) consolidate these for the purposes of finance and provide a foundation for forthcoming research and applied projects.

stakeholder relationships. For example, if a principal keeps its greenhouse gas emissions below zero by using carbon capture and storage technologies (CCS), the nature stakeholder has in this instance realized its value appropriation objective. As ecological resources increase their alternative uses (e.g., through institutional changes such as carbon pricing initiatives) the value allocated to the nature stakeholder will increase and facilitate regeneration. Increasing alternative uses is a standard division of value strategy (as in Brandenburger, 2002), so extending it to the nature stakeholder (technically its custodian) mirrors the strategies of other suppliers of inputs to principals. Again, value is always jointly created, but the task of attributing its proportions to the parties involved in its creation is computationally overwhelming. Nonetheless, once created, value must and will be divided—and will likely be priced—with both principal and stakeholders seeking to appropriate as large an amount as possible. While the business model enables the principal and stakeholders to both create and appropriate value, its monetization—value appropriation—generates the residual income flows. Division of value strategies between the principal and stakeholders underpin value appropriation objectives realized in the context of competition between the different claimants (MacDonald & Ryall, 2004), with the analytical focus here being bargaining power (Coff, 1999). For Di Gregorio (2013, p. 43), “market-based bargaining power” is one of the sources of value appropriation and works “by harnessing market forces to establish unilateral dependence” with firm stakeholders in inter-organizational settings by utilizing strategies such as cost switching, replacement cost advantages, scarcity, or information asymmetries.

The value creation and appropriation logic of the division of value strategies in Table 2.1 applies to all business models. However, as has repeatedly been noted, elite business models are distinct due to their size. To recap, elite business models have transaction cost advantages that enable them to convert potential coordination capacity over factors of production such as land, labor, capital, or data into the largest streams of residual income in the economy, which in turn accumulate into the largest pools of wealth in society. This quantitative differential understanding again alludes to Mills (1956, p. 9) who associated elites with “the most of what there is to have”. The specific cut-off point between an elite and non-elite business model in terms of size is an empirical matter left for later inquiry as it is contingent on the case-by-case context of a country or industry. However, in all cases, power characterizes the elite business model because it underpins its bargaining position and makes strategies to achieve value appropriation objectives feasible. The bargaining power of an elite business model emanates from wins in the three contest arenas of the political economy (see Figures 1.2 and 2.1). Value appropriated by one party is limited by the balance between its own bargaining power and that of the counterparties, consistent with Coff’s (1999) examination of the impact of bargaining power on value (rent) appropriation.

A business model is a complex network of relationships with a range of external and internal stakeholders that go far beyond suppliers and customers to encompass employees, trade unions, governments, investors, creditors, business partners, nature, communities, or taxpayers. The VCA framework implies that residual income is, most

**Table 2.1:** Principal and stakeholder division of value strategies.<sup>21</sup>

|                                  | <b>Agent</b>                                                                          | <b>Objective</b>                                                                                                                                                     | <b>Bargaining power application</b>                                                                                                    |
|----------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Principal [p]</b>             | Runs the business model, creates outputs (uses as inputs supplier's outputs)          | Generation of residual income (= price of outputs – costs of inputs) (see equation 1, Table 2.4);<br>Cost of capital (= its opportunity cost) below return on equity | Decrease alternative uses of inputs (resources bought from supplier)<br>Decrease substitutes for outputs (products bought by customer) |
| <b>Supplier stakeholder [s]</b>  | Supplies outputs to principal (principal's inputs)                                    | Price of resources (= cost of inputs to principal) below own opportunity costs                                                                                       | Increase alternative uses of resources                                                                                                 |
| <b>Customer stakeholder [cu]</b> | Buys products from principal (principal's outputs)                                    | Cost of product (= price of output by principal) below own willingness to pay                                                                                        | Increase substitutes for products                                                                                                      |
| <b>Nature stakeholder [n]</b>    | Supplies ecology, the fundamental material reality, to principal (principal's inputs) | Price of ecological resources (= cost of ecological inputs to principal) below nature's own regeneration opportunity costs                                           | Increase alternative uses of ecological resources                                                                                      |

crucially, not just dependent on the value created but also on the bargaining power differential between the principal and the stakeholders. Relative bargaining power determines strategic discretion and the viability of a particular division of value strategy. In his renowned work on competitive strategy, Porter (1980) proposes five competitive forces, two of which explicitly refer to bargaining power (the bargaining power of buyers and the bargaining power of suppliers). His model also stresses that increasing bargaining power is a general strategic objective that enables value appropriation. Moatti, Ren, Anand, and Dussauge (2015, pp. 746–747) assert that “bargaining power measures the economic clout at the firm level” and explain how M&A activity extends this power given its positive association “with size versus competitors, suppliers and customers” as well as, of course, with most other stakeholders. M&A strategies are avidly pursued by management because they may potentially improve firm performance in two ways that correspond to two theoretical perspectives on firm size: greater “bargaining power with respect to suppliers and customers, and operating efficiency arising from scale economies” (Moatti, Ren, Anand, & Dussauge, 2015, p. 745). ‘Size’ alone leads to advantages in the non-market arena while ‘efficiency’ is associated with knowledge, a source of bargaining power that is especially relevant in the market arena.

<sup>21</sup> This table summarizes and extends Figure 1 (Explaining the Five Forces Model) in Brandenburger (2002, p. 59) with nature added as a stakeholder in the analysis (see Starik, 1995 or Laine, 2011).

It must be re-emphasized that bargaining power, in Olsonian fashion, originates from the ability of acting in concert, “as a cohesive bargaining unit”, a unit that is “capable of unified action” (Coff, 1999, pp. 122, 124). Consistent with the earlier discussion on coordination capacity and lower transaction costs (Proposition 4) and by referencing the principal-stakeholder perspective, elite business models amass the greatest bargaining power endowments in the economy through their grip of ‘the extraordinary lever’ in their particular sector. In the abstract, elite coalitions are coordination capacity; in the concrete, applied coordination capacity is the power of their business models to benefit from both value created and appropriated as well as value appropriated and *not* created.

In sum, value is all that which humans determine is worth appropriating, while all ongoing business models exist as mechanisms to appropriate value. Is it possible for a business model to appropriate more value than it creates, or to create no value while still appropriating value (from its stakeholders)? Yes, contingent on it having sufficient bargaining power. This notion is at the center of this inquiry as business models might at times destroy significant amounts of value in the process of forcing through value transfers. One obvious example is the collateral damage caused by criminal business models based on coercion. Extractive business models can also be entirely legal as is demonstrated by the varieties of institutionalized “theft” considered in the work of Tullock (1967) and Olson (1993) and the extensive rent-seeking literature (reviewed in Section 5.2). Overall, economies and societies advance because a majority of their business models—including elite business models—mostly rely on value created and appropriated rather than on value appropriated but *not* created. Then, stakeholders such as suppliers, customers, or governments participating in the principal business model have an incentive to create value since they can also *a priori* appropriate a substantial part of that value for themselves, and through that appropriation generate their own residual income.

Coalitions with comparatively small amounts of bargaining power in the overall political economy, such as air traffic controller associations, might nonetheless be able to concentrate these modest endowments in a narrow sector and thereby manage to appropriate more value than they create (sometimes even in a relationship with a more powerful but dispersed principal). Extractive narrow elites that possess ‘the extraordinary lever’ in their specific niche latch their transfer models not only onto weaker stakeholders, but also onto powerful elite business model principals. From an economic development perspective, the proliferation of such small extractive models in the nooks and crannies of the economy can accumulate into a very severe problem.

Power will appropriate value, which when not created by the appropriating principal (or the appropriating stakeholder) constitutes a value transfer-IN from the counterpart. When counterparties enjoy similar amounts of bargaining power, transfer-IN/OUT (value taken away from stakeholders/principals) is unlikely to occur. From a price perspective, this is the equilibrium brought about by equalized bargaining power. This situation is termed the ‘equalized bargaining power equilibrium prices’ condition and will become a theoretical cornerstone of this inquiry.

Under the premise that power is supreme in principal-stakeholder relationships, dissimilar levels of bargaining power can lead to maximum transfer-IN. In labor markets, that would correspond to Marx's (1844/1959a, p. 3) depiction in the "Wages of Labour":

The lowest and the only necessary wage rate is that providing for the subsistence of the worker for the duration of his work and as much more as is necessary for him to support a family and for the race of labourers not to die out. The ordinary wage, according to Smith, is the lowest compatible with common humanity, that is, with cattle-like existence.

Workers (stakeholders supplying labor) in most of the economies of today do not receive Marxist subsistence wages. Why? Because they have increased their bargaining power thanks to 'political economy know-how' (power in the political non-market and narrative market arenas) by forming political movements or trade unions, and relevant 'knowledge' (power in the market arena) by acquiring, for instance, valuable skills and increasing the demand for their services in labor markets.

Transfer-IN/OUT needs to be understood as a matter of degree. For the two counterparties in a relationship, positive residual income (and positive value appropriation) is possible within a price corridor that "arises when the maximum that the buyers will pay (their willingness to pay) exceeds the minimum that the suppliers will accept (their opportunity cost)" (Brandenburger, 2002, p. 58). Within such an acceptable price range when does the price point reflect an extractive transfer? Whether the price point is closer to one end or the other of the range depends on the respective bargaining power endowments of the principal and stakeholders (see Figures 2.2 or 2.6). Extraction (transfer-IN/OUT) is conjectured as actual prices that differ from an 'equalized bargaining power equilibrium price' counterfactual. A theoretical—and obviously practical—problem arises when the price point (the reflection of a large bargaining power differential) sees stakeholders receiving untenable amounts of residual income (e.g., laborers with Marxist subsistence levels, suppliers whose margins are squeezed almost to breaking point by principals, indebted governments that fail to collect sufficient taxes or, conversely, governments that excessively tax their businesses and citizens).

Figure 2.2 illustrates actual price points determined by the respective bargaining power of the counterparties in the principal-stakeholder relationship (the arrows signify bargaining power endowments that push prices in the direction of a counterparty's value appropriation). Effective elites or businesspeople are adept at accumulating and augmenting bargaining power in various ways (for instance, by creating the perception of decreased alternative uses for stakeholder resources in the market arena, as was indicated in Table 2.1). Price equilibria in the real economy are never the result of equalized bargaining power endowments, but neither are they the sole result of objective bargaining power differentials. Rather, prices are the outcome of these power differentials (see elite coordination leadership, Figure 1.2) *and* of division of value strategies (see elite business model leadership, Figure 2.1). The starting point of strategic management is therefore the maximization of bargaining power and how it is applied to stakeholder relationships.

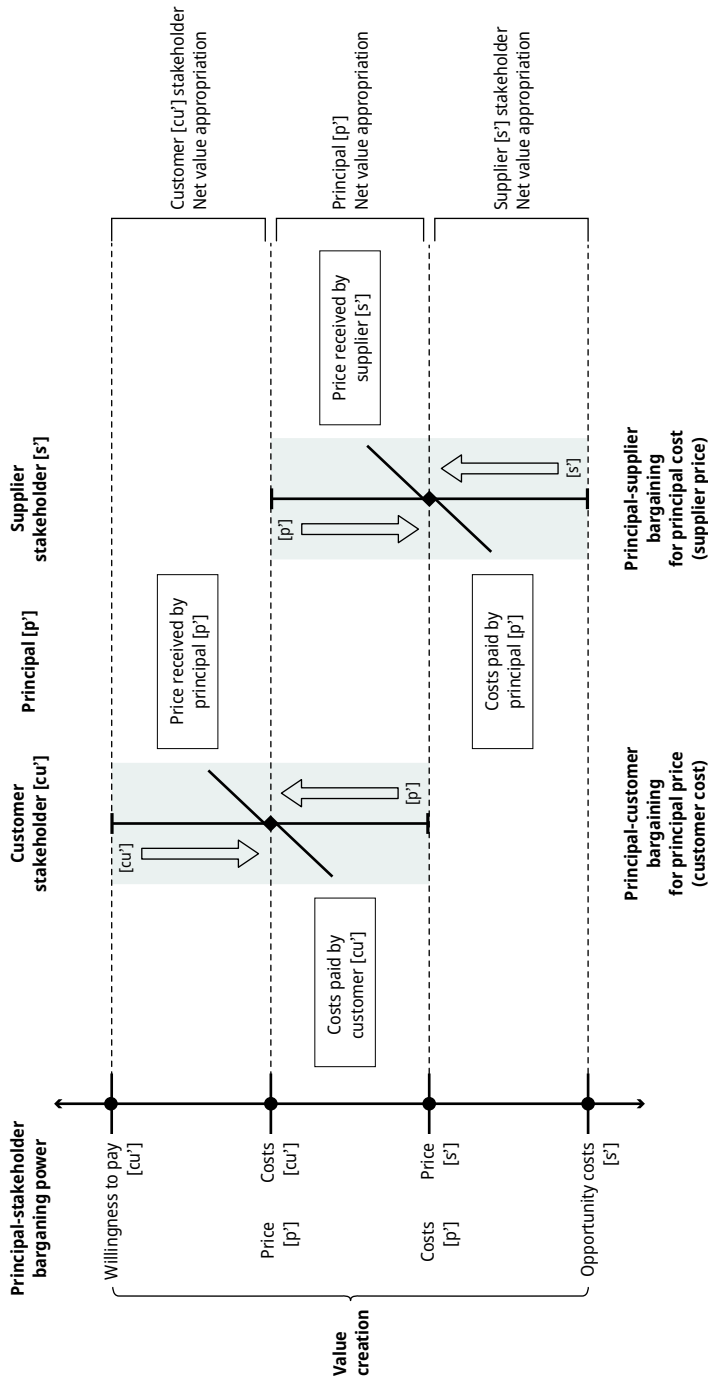


Figure 2.2: Bargaining power as a determinant of the division of value in principal-stakeholder relationships.<sup>22</sup>

The ultimate role of inclusive institutions (in politics), fair narratives (in society), or free markets (in the economy) might well be to enable value creators to appropriate a commensurate share of their created value and so receive residual income flows. This entails building conditions that approximate ‘equalized bargaining power equilibrium prices’, as opposed to prices and costs resulting from political economy-determined accumulations of bargaining power. The normative economic and human development optimum can, however, hardly be the full rebalancing of bargaining power when some of this power is the result of ‘knowledge’ (of markets, production, R&D, etc.). ‘Knowledge’ creates value and yields bargaining power. Yet here, a vital applied challenge of the political economy arises: ‘the Amazon dilemma’, that rests on two components. An ‘elite vs non-elite knowledge gap’ hypothesis has elite models that boast an overwhelming and irrevocable ‘knowledge’ generation advantage. In the past, this was achieved by creating deliberate barriers to alphabetization (Goody & Watt, 1963), while today the gap exists due to business model rules that magnify the “economic properties of data and the monopolistic tendencies of data economy” (Cheng, 2020), or, as a result of AI’s large language models (LLMs), the trained neural networks which appear set to lower the cost of intelligence to nearly zero (Hoffman, 2022). In parallel, the ‘elite power vs value creation gap’ hypothesis posits that the growth of elite (bargaining) power will surpass that of value creation, meaning that ‘the extraordinary lever’ gains even more leverage (thus driving ‘The Elite Business Model Lifecycle’, see Section 4.3, Figure 4.5). Jointly, and when confirmed, these two hypotheses set forth the conditions for extractive value transfers by value creators that jeopardize development even in light of technological progress.<sup>23</sup>

Generally speaking, the appropriation of uncreated value is associated with well-known allocative efficiency problems, such as distortions in incentive structures or the integrity of what is known as the Hayekian ‘information-processing system’ (Bowles, Kirman, & Sethi, 2017, p. 217). These complications encumber economic growth and general human welfare potential. However, from an economic perspective, the optimal transfer amount is not a linear ‘the less, the better’. This inquiry provokingly asks whether extractive value transfers could go hand in hand with or even be a precondition for value creation (see Proposition 10 or Section 8.2 on acceptable redistribution). Measurement difficulties notwithstanding, if value creation and ap-

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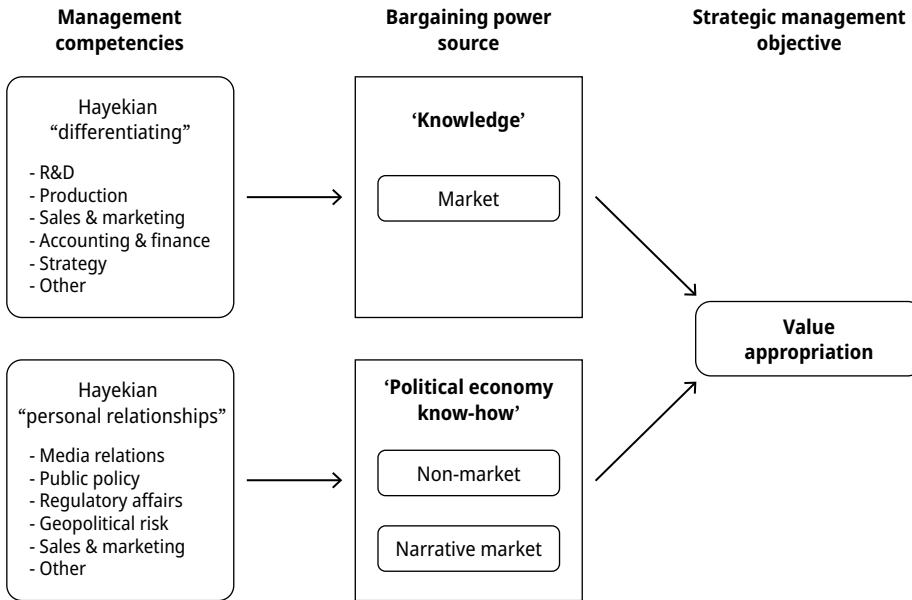
<sup>22</sup> This figure extends and adapts Figure 2 (on the division of value) in Brandenburger and Stuart (1996, p.10) with the addition of bargaining power.

<sup>23</sup> Amazon’s unprecedented ‘knowledge’ creation, management powers, and enormous scale have led to immense value creation along with the growth of its (bargaining) power. Whether (i) Amazon has opened an unsurmountable knowledge gap with lesser existing and emerging competitors; (ii) its bargaining power growth has been higher than the growth of its value creation, and (iii) this alleged power vs value growth differential has resulted in value appropriated but *not* created from stakeholders are three testable questions. Suggested approaches to elucidate these start here with sustainable value measurements like the Value Creation Position (VCp), introduced later in this chapter.

propriation are quantifiable, new prescriptive avenues might be opened for economic policymakers and transformational elite business model leadership. To complete this sub-section's discussion on bargaining power, a conceptual look at its sources is essential.

The German automotive industry is used as an example as it is known globally for its principals, with leading companies such as Volkswagen AG Wolfsburg, Daimler AG Stuttgart, Bayerische Motoren Werke AG Munich, Robert Bosch GmbH Gerlingen and thyssenkrupp AG Essen. Their elite business models have diverse stakeholder relationships with highly skilled workforces, sophisticated supplier networks, a professional class of engineers and managers, as well as the German government and taxpayers at large. In this value chain, all parties engage in value creation and value appropriation while pursuing a variety of power accumulation and value division strategies to generate a residual income in the form of profits, decent salaries, and taxes. The appropriation of the portions of the pie by each stakeholder depends on their respective bargaining power and how they use it. A part of this power invariably emanates from sheer competitiveness resting on (Hayekian “differentiating”, 1948/1958, p. 96; Bowles, Kirman and Sethi, 2017, p. 219) activities in engineering, marketing or production, many of which are quite innovative (‘knowledge’ in Figure 2.3). Exercising influence over German institutions such as labor laws or the tax code and leveraging the existing correlation of political forces, popular sentiment, and the cyclical strengths of certain narratives for advantage, are all part of the activities (resting on Hayekian “personal relationships”, 1948/1958, pp. 96–97; Bowles, Kirman and Sethi, 2017, p. 219) that top managers and shareholders engage in with legislators, media influencers, or civil servants (‘political economy know-how’ in Figure 2.3). Every principal and stakeholder will seek to combine the two sources of bargaining power that jointly enable degrees of value appropriation. Eventually, the principal and each stakeholder, such as the IG Metall (the German metalworkers’ union), settle on price points (e.g., for wages). The two discrete sources of bargaining power (‘knowledge’ and ‘political economy know-how’) and the underlying competencies in the strategic management context that support power accumulation and the division of value strategies for the objective of value appropriation—and ultimately the generation of residual income flows—are depicted next.

The two sources of bargaining power in Figure 2.3 reference Hayek’s interpretation in “The Meaning of Competition” (1948/1958). Also, ‘political economy know-how’ would be associated with the dimension of ownership that Monteiro and Miranda (2023) call “institutional competence”, while ‘knowledge’ would align with what Foss, Klein, Lien, Zellweger, and Zenger (2021) conceive as “ownership competence”. Because they underpin bargaining power differentials, they are constitutive of price disequilibria as opposed to competitive equilibrium prices. Again, unequal power endowments determine principal-stakeholder prices and hence the prospects for value appropriated but *not* created. This inquiry suggests that a counterfactual price equilibrium under the assumption of freedom is a benchmark for the appropriateness of the appropriation and



**Figure 2.3:** The ‘knowledge’ and ‘political economy know-how’ sources of business model bargaining power.

is relevant from an economic development perspective. The ETED suggests three freedoms that balance bargaining power in the final chapter of this book (Section 8.3), but these do not work in equal measure on the two sources of power. As is expounded next, development is consistent with bargaining power differentials that result from ‘knowledge’, a resource that has the property, from a political economy perspective, of being perishable.

Why are bargaining power differentials that originate from ‘knowledge’ sourced in the market arena preferable to those derived from ‘political economy know-how’ sourced in the non-market and narrative market arenas? The power emanating from ‘knowledge’ is essentially related to value, must prove its mettle in the more competitive market arena, and is relatively less stable than power sourced from the political non-market and narrative market arenas. This is so because ‘knowledge’ incessantly evolves and is developed outside of the purview of incumbent elites, away from established models and organizations (see Schumpeter, 1911/2003; Christensen, 1997). Elite business model bargaining power emanating mainly from ‘knowledge’ will quickly erode and be rebalanced by new market entrants, thus being more temporary and thereby preempting continued value transfers. This all leads to an approximation of Hayekian equilibrium pricing, the improvement of offerings (Hayekian “differentiating”) and to development.

A caveat must be raised here: to the extent that the ‘elite vs non-elite knowledge gap’ hypothesis is correct, the elite will retain the bargaining power originally sourced from ‘knowledge’ longer than is theoretically warranted. “When we had slavery in America,

the white masters adopted laws to make it unlawful to instruct even freed Negroes”, the universal principle being that “masters try to keep the people whom they rule in a state of ignorance” (Roucek, 1967, p. 483). As part of elite preservation strategies, non-elites are insulated from relevant and cutting-edge knowledge through deliberate and methodically erected barriers and hence impaired from constructively challenging elite business models (as emergent entrepreneurs, politicians, intellectuals). This has been the case since time immemorial,<sup>24</sup> while today, opaque algorithms (e.g., in social networks)<sup>25</sup> or “closed” access to the “resources needed to build AI from scratch, and to deploy large AI systems at scale” (Widder, West, & Whittaker, 2023) further a state of ignorance that has similar effects on bargaining power differentials.

In a further twist, even when non-elites do have access to knowledge, the bargaining power distance between elites and non-elites is exacerbated by the combination of the elite business model ‘knowledge’ advantage and ‘political economy know-how’. That is why this work would predict that the Microsoft-backed Open AI will triumph over open source AI projects even if the latter are “faster, more customizable, more private, and pound-for-pound more capable” (Patel & Ahmad, 2023). The technologist investor Marc Andreessen (2023a) criticizes “the drive for AI regulation right now” because it benefits the extractive forces (“bootleggers”) of the political economy. Fundamentally, ‘the Amazon dilemma’ associates with extractive value transfers when the ‘elite vs non-elite knowledge gap’ hypothesis combines with the ‘elite power vs value creation gap’ hypothesis. While new knowledge is notionally liberating, when the two hypotheses come together in business model reality the result is that ‘knowledge’ is at the root of extractive value transfers (Section 8.2.4 and the Epilogue whether and how the AI and non-elites, augmented with superintelligence at their fingertips, could address this issue).

Notwithstanding ‘the Amazon dilemma’, ‘knowledge’ is, for the policymaker and everyone concerned about sustainable value creation and inclusive prosperity, the fa-

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<sup>24</sup> It must be stressed that since the emergence of civilization, the central role of knowledge elites (besides knowledge creation) is to artificially erect knowledge gaps that serve as moats to preserve elite business models. In early Egypt, Mesopotamia, or China “a literate elite of religious, administrative and commercial experts emerged and maintained itself as a centralized governing bureaucracy on rather similar lines. Their various social and intellectual achievements were, of course, enormous; but as regards the participation of society as a whole in the written culture, a wide gap existed between the esoteric literary culture and the exoteric oral one, a gap that the literate were interested in maintaining. Among the Sumerians and Akkadians, writing was the pursuit of scribes and preserved as a ‘mystery’, a ‘secret treasure’” (Goody & Watt, 1963, p. 314). On exactly the same principle, a “leaked internal Google document” shows that its technologists, the main knowledge elites of Big Tech coalitions, are raising alarm bells about the lack of a knowledge gap with non-elites (in relation to open source AI projects): “But the uncomfortable truth is, we aren’t positioned to win this arms race and neither is OpenAI. While we’ve been squabbling, a third faction has been quietly eating our lunch. I’m talking, of course, about open source. Plainly put, they are lapping us” (Patel & Ahmad, 2023).

<sup>25</sup> A point made by *The Wall Street Journal* (2021) video investigation, *Inside TikTok’s Highly Secretive Algorithm*, that “reveals how the video-centric social network is so good at figuring out interests you never expressly tell it”.

vored source of bargaining power in the economy. This is so because ‘knowledge’ is valuable in itself, and *a priori* more distributed and temporal. In contrast, the differentials and disequilibria resulting from ‘political economy know-how’ (wins in the non-market and narrative market arenas) are purported to be more stable and require much longer time horizons to reverse. Therefore, and because of their respective impact on the economy, the bargaining power sources behind value appropriation are essential to the ETED and possess prescriptive and ethical implications.

This section’s extended discussion started by defining value as everything that humans determine is worth appropriating. Value appropriation is a manifestation of an accumulation of bargaining power (via elite coordination leadership) and the specific division of value strategies (of successful elite business model leadership). Bargaining power differentials end up determining the residual incomes of principals and stakeholders alike. To maximize residual income, all business models seek to create and then appropriate value, including value *not* created. However, the latter approach is far less available to non-elite business models given their lower bargaining power endowments. Non-elite models do, at times, have an advantage over incumbent elite models in terms of ‘knowledge’ (by being more agile and innovative, see Schumpeter, 1911/2003; Christensen, 1997) but are at an irremediable disadvantage in terms of ‘political economy know-how’. Proposition 8 asserts that the elite business model is characterized by bargaining power differentials vis-à-vis its stakeholders which enable value appropriation (including uncreated value) and so generate the economy’s main residual income flows. Price equilibria that approximate hypothetical equalized bargaining power—‘equalized bargaining power equilibrium prices’—describe the incentive structure that maximizes value creation. For economic development and policy purposes, the source of elite business model bargaining power to be prioritized is ‘knowledge’.

### **2.2.3 Proposition 9: Value creation-appropriation (VCA) is the framework best suited to understand elite business models’ division of value strategies**

The previous section delved into bargaining power, identifying its sources while providing the general framework for price setting in principal-stakeholder relationships. The focus now moves to the strategic management objective of value appropriation, i.e., how bargaining power is converted into residual income via division of value strategies. This process is explained with the VCA framework, which analyzes the business model recognizing the discrete relationships between the elite principal and the multiple stakeholders. Each principal-stakeholder relationship has its own bargaining power accumulation reality and division of value strategies. Table 2.2 illustrates through the VCA analytical framework (as a continuation of Table 2.1) a set of specific division of value instances between the business model principal and diverse stakeholders (see the visualization in Figure A5.13a). As established in Proposition 8,

for elite business models, the elite principal's bargaining power advantage has a bearing on the viability of division of value strategies and value appropriation outcomes.

**Table 2.2:** Division of value strategies and outcomes.

| Ref.              | Principal and stakeholder                                                                       | Relationship                                                                                                                                                                                                                                                                                                                                                                                                                  | Outcomes                                                                                                                                                                                                                                                                                                                    |
|-------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [s]<br>[p]        | Supplier stakeholder<br>vs<br>Firm principal                                                    | Suppliers of necessary inputs (e.g., rare earth elements and semiconductors) enjoy a near monopoly. As a result, suppliers enjoy a bargaining power advantage and set prices above the levels that would prevail in a competitive market under the conditions of 'equalized bargaining power equilibrium prices'.                                                                                                             | Supplier stakeholder(s):<br>Includes value appropriated but <i>not</i> created, i.e., value transfer-IN.<br>Firm principal:<br>Includes value created but <i>not</i> appropriated, i.e., value transfer-OUT.                                                                                                                |
| [m]<br>[p]        | Top management stakeholder<br>vs<br>Firm principal                                              | Stage 1: The executive pay of the incoming top management team is below industry standards. The top management stakeholder goes on to deliver exceptional above average performance.<br>Stage 2: The firm's top management leverages its newly acquired bargaining power (the source of which is 'knowledge') to renegotiate terms. Executive pay is adjusted to match industry standards and accurately reflect performance. | Top management stakeholder:<br>Includes value created but <i>not</i> appropriated, i.e., value transfer-OUT.<br>Firm principal:<br>Includes value appropriated but <i>not</i> created, i.e., value transfer-IN.<br>Stage 2: Transfer-IN/OUT ceases with both counterparties benefiting from value created and appropriated. |
| [g]<br>[p]        | Government stakeholder<br>vs<br>Firm principal                                                  | The principal uses political connections and effective lobbying to gain an uncommon tax break as well as the transfer of intellectual property (IP) at no cost from an expensive government-funded research project.                                                                                                                                                                                                          | Government stakeholder:<br>Value created but <i>not</i> appropriated, i.e., value transfer-OUT.<br>Firm principal:<br>Value appropriated but <i>not</i> created, i.e., value transfer-IN (taxpayers pay for the tax breaks and the subsidized technology).                                                                  |
| [l]<br>1/2<br>[p] | Scenario 1/2<br>Employee stakeholder (labor)<br>vs<br>Firm principal (Visualized in Figure 2.4) | The principal has a monopsony position, and <i>a priori</i> bargaining power is such that the firm can force lower wage conditions onto labor. However, the firm principal refrains from doing this and offers wages comparable to those prevalent in neighboring labor markets which are competitively set and a valid productivity reference.                                                                               | Employee stakeholder:<br>Value created and appropriated.<br>Firm principal:<br>Value created and appropriated (transformational leadership to forfeit the option of leveraging bargaining power for value appropriation purposes. See also the set of ethical principles, Chapter 8).                                       |

Table 2.2 (continued)

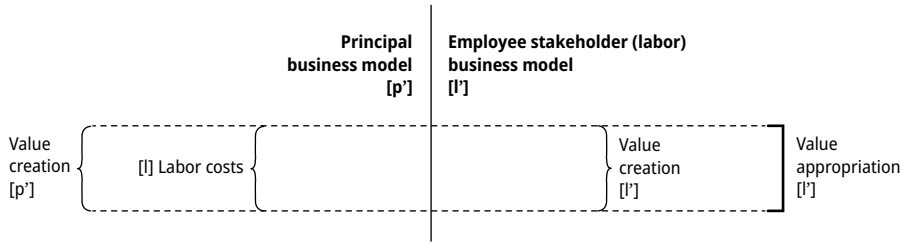
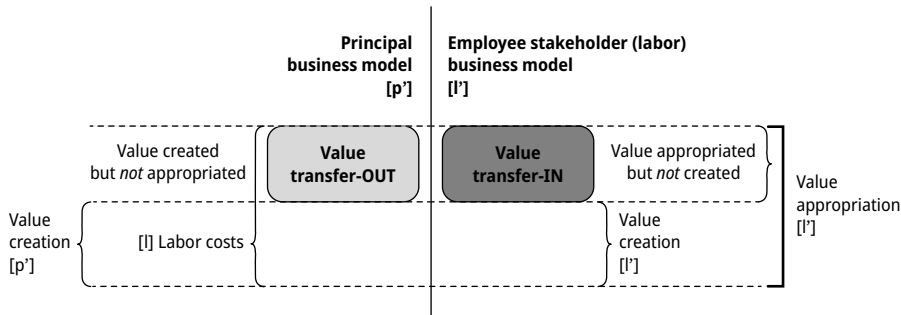
| Ref.        | Principal and stakeholder                                                                       | Relationship                                                                                                                                                                                                                                                                                                                                                                                                                   | Outcomes                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [l]<br>2/2  | Scenario 2/2<br>Employee stakeholder (labor)<br>vs<br>Firm principal (Visualized in Figure 2.4) | Relationship: Organized labor leverages bargaining power differentials in the political non-market and societal narrative market arenas to force institutional change that brings regulation where wages are above market clearing equilibrium levels.                                                                                                                                                                         | Employee stakeholder:<br>Includes value appropriated but <i>not</i> created, i.e., value transfer-IN (from principal, plus from the workers whose jobs disappear due to declines in the demand for labor, triggered by labor costs above market equilibrium prices).<br>Firm principal:<br>Includes value created but <i>not</i> appropriated, i.e., value transfer-OUT.       |
| [p]<br>[k]  | Firm principal vs<br>Creditor stakeholder                                                       | A creditor financial institution issues a loan with a market-based risk-adjusted interest rate that is repaid on agreed terms.                                                                                                                                                                                                                                                                                                 | Firm principal:<br>Value created and appropriated.<br>Creditor stakeholder:<br>Value created and appropriated.                                                                                                                                                                                                                                                                 |
| [p]<br>[p]  | Firm principal vs<br>Firm principal (shareholder)                                               | After paying interest to a creditor, the principal shareholder of the firm appropriates whatever income remains as residual income.                                                                                                                                                                                                                                                                                            | Firm principal (shareholder):<br>Returns on capital derived from residual income (profits), the sum of the residuals of all stakeholder relationships in the business model—the net value appropriation (see Table 2.4, equation 1.3). Residual income (profits) is also the difference between revenue (the customer prices) and all the costs (see Table 2.4, equation 1.1). |
| [cu]<br>[p] | Customer stakeholders vs<br>Firm principal                                                      | The firm is innovative and its customers' willingness to pay for its products is above the firm's costs. Moreover, prices are higher than those of competing products. The product price premium is a fraction of the innovation value to the customer, so the customer appropriates sizable value. The firm's 'knowledge' is the source of extraordinary value creation and transactions occur in a free, competitive market. | Customer stakeholder:<br>Includes value appropriated but <i>not</i> created (consistent with instances where the customer is a joint participant in the value creation process).<br>Firm principal:<br>Includes value created but <i>not</i> appropriated.                                                                                                                     |

Table 2.2 (continued)

| Ref.       | Principal and stakeholder                    | Relationship                                                                                                                                   | Outcomes                                                                                                                                                                                                                                                           |
|------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [n]<br>1/2 | <i>Scenario 1/2</i><br>Nature stakeholder vs | The principal implements ESG principles and has a carbon neutral footprint having undergone ISO 14064–1 greenhouse gas emissions verification. | Nature stakeholder:<br>Value created and appropriated (nature's ability to deliver ecosystem services is preserved).                                                                                                                                               |
| [d]        | Firm principal<br>(Visualized in Figure 2.5) |                                                                                                                                                | Firm principal:<br>Value created and appropriated, (transformational leadership to forfeit the option of value appropriation from nature absent the legal requirement to have a carbon neutral footprint. See also the set of ethical principles, Chapter 8).      |
| [n]<br>2/2 | <i>Scenario 2/2</i><br>Nature stakeholder vs | A polluting firm has a large carbon footprint from its business activities that it does not offset with carbon credits.                        | Nature stakeholder:<br>Includes value created but <i>not</i> appropriated, i.e., value transfer-OUT (by principal).                                                                                                                                                |
| [p]        | Firm principal<br>(Visualized in Figure 2.5) |                                                                                                                                                | Firm principal:<br>Includes value appropriated but <i>not</i> created, i.e., value transfer-IN (from the nature stakeholder by not paying for the usage of ecosystem services, and from society at large, both of whom suffer from the effects of climate change). |

The two scenarios for the firm vs employee (principal-stakeholder) relationship detailed in Table 2.2 are now visualized in Figure 2.4. In the first scenario 1/2, the firm vs employee relationship (described in [I] scenario 1/2, Table 2.2) is balanced and hence there is no transfer-IN/OUT i.e., the value created equals the value appropriated. Then there are situations where “powerful unions sometimes cripple firms by forcing them to pay higher wages than the market would otherwise command” (Harrison, Bosse, & Phillips, 2010, p. 70). Scenario 2/2 represents such a firm vs employee (principal-stakeholder) relationship (described in [I] scenario 2/2, Table 2.2) where employees are beneficiaries of value appropriated but *not* created (i.e., political non-market arena sourced bargaining power is used to push wages above market equilibrium levels).<sup>26</sup>

<sup>26</sup> That wages above equilibrium are associated with elites is counterintuitive because the single worker benefiting from this extractive transfer model receives monetary rents that cannot possibly be compared in terms of their size with the incomes of the individuals running, for instance, corporate business models. The personal incomes of union leaders (at least those in advanced economies), even when ‘the extraordinary lever’ and their considerable bargaining power differentials (sourced

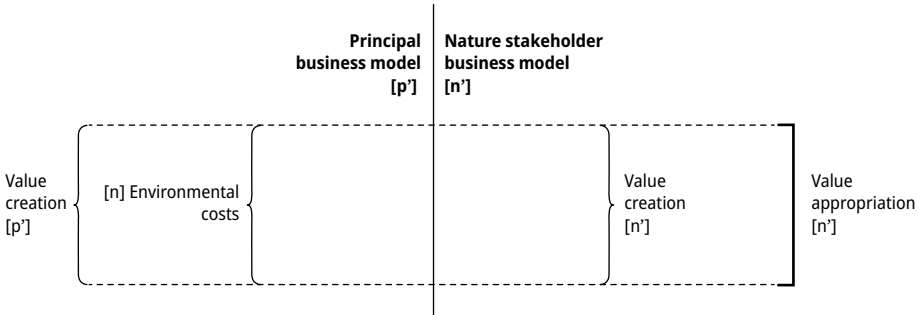
**Scenario 1/2: At market equilibrium price [l] labor costs****Scenario 2/2: Above market equilibrium price [l] labor costs**

**Figure 2.4:** Division of value in the firm-employee (principal-stakeholder) relationship: Scenario 1/2, labor costs at market equilibrium; scenario 2/2, labor costs above market equilibrium.

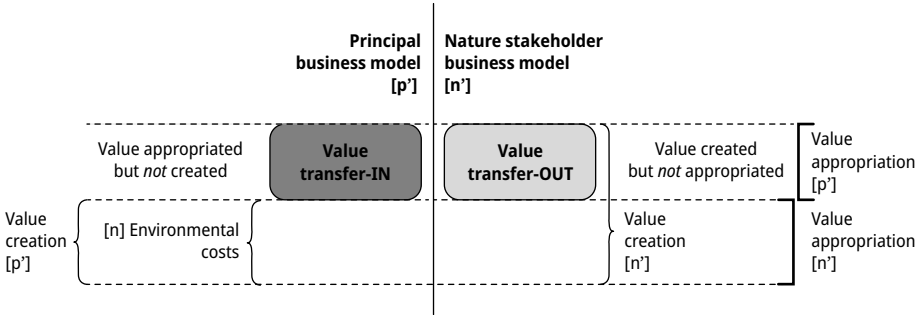
Next, the two scenarios for the firm vs nature (principal-stakeholder) relationship outlined in Table 2.2 are depicted in Figure 2.5, where the nature stakeholder is the hypothetical aggregate of all of nature's services relevant to the principal under the 'nature stakeholder' assumption. Laine (2011) argues that the natural environment should be visualized in any stakeholder network and Starik suggests that "organizations which begin to treat non-human nature as one or more stakeholders will be perceiving a more realistic, if more complex, picture of their respective business environments" (1995, p. 216). Such a realistic visualization is presented in Figure 2.5 through the VCA

through 'political economy know-how') allow them to implement aggressive minimum wage policies, would hardly endow them with a wealth stock that qualifies them as 'elites' in the commonly understood sense of the term. Yet, on aggregate, the minimum wage business model has an impact on economic development (in terms of residual income transfers, sapping the incentive system or creating joblessness, especially youth unemployment) that is as significant as that of any other extractive elite business model. From the developmental perspective, labor unions that succeed in setting minimum wages above equilibrium *de facto* run transfer elite business models.

**Scenario 1/2: Net-zero carbon emissions (climate neutral) [n] environmental costs**



**Scenario 2/2: Net positive carbon emissions (climate negative) [n] environmental costs**



**Figure 2.5:** Division of value in the firm-nature (principal-stakeholder) relationship: Scenario 1/2, Net zero carbon footprint; scenario 2/2, high carbon emissions.

framework applied to the ETED. First, in scenario 1/2, the firm vs nature relationship (described in [n] scenario 1/2, Table 2.2) is balanced; the firm has a validated carbon neutral position and so there is no transfer-IN/OUT, meaning that the value created equals the value appropriated for both counterparties. In Scenario 2/2 on the other hand, the firm vs nature (principal-stakeholder) relationship (described in [n] scenario 2/2, Table 2.2) sees the firm underpay for the ecological services it receives from nature, deriving a cost advantage from being a polluter and thus benefiting from value appropriated but *not* created. The surplus carbon balance is climate negative and permitted under applicable law (politically sourced bargaining power by the principal that is converted into residual income by not paying the price to offset emissions).

The two sources of bargaining power discussed in the previous section (and portrayed in Figure 2.3) not only facilitate value appropriation (by labor from the firm and by the firm from nature in Figures 2.4 and 2.5 respectively), but also provide an indication on whether the party appropriating value has also created it or there has

been a value transfer. How can this inquiry then ascertain value creation of the ‘knowledge’ type through the use of the VCA framework?

To do so, we must again reference Garcia-Castro and Aguilera’s (2015, p. 137) decrease of opportunity costs and the increase in prices (willingness to pay). Zott and Amitt (2013, p. 408) similarly circumscribe the process by which value is created: “Value is created by activities that (i) reduce buyer costs or (ii) raise buyer performance through product differentiation”. That is, the pie is enlarged. Value creation resulting from ‘knowledge’ is reflected by a higher willingness to pay and lower opportunity costs materialized as residual income in the business model value chain (as in Figures 2.2 or 2.6). With value thus created, the larger value pie is divided via prices between the principal and stakeholders as per their respective (division of value) strategies backed by bargaining power. In contrast, bargaining power attained through ‘political economy know-how’ does not result in better performance or reduced costs (i.e., in a higher willingness to pay and lower opportunity costs), yet the party wielding the increased power can capture a bigger slice of the existing (or shrinking) pie (i.e., transfer-IN, value appropriated but *not* created, as is seen in Figure 2.4, scenario 2/2 and Figure 2.5, scenario 2/2).

### Equations for residual income (1/9)

The various VCA-derived conceptual elements that have been discussed are next described as equations for the operationalization purposes of this inquiry. The first equation refers to the ultimate strategic objective of any business model, residual income (profits). From the revenue amount received from sales (the prices customer stakeholders pay) applicable costs are subtracted (see Figures 2.6, 2.7, or 2.9) to arrive at the residual income (note that debt holder interests are considered to be costs). All of the equations that follow (see the full list in Table 2.4) are presented in two equivalent versions: the first is an intuitive text version, while the second (where the equations are followed by an ‘a’, ‘b’, or ‘c’ suffix) use the notational conventions of finance. The first equation (1.1) is part of a set that describes residual income (RI),<sup>27</sup> for both principals and stakeholders:

$$\text{residual income} = \text{revenue adjusted} - \text{costs} \quad (1.1)$$

$$RI_t = R'_{x,t} - c_t \quad (1.1a)$$

The VCA framework holds that all business models are but a bundle of principal-stakeholder relationships. Due to lower transaction costs and a larger coordination capacity (consistent with both ‘knowledge’ and ‘political economy know-how’) elite business model principals are especially adept at appropriating and possibly creating value. Bargaining power enables the appropriation of a significant part of the value created in the principal-stakeholder relationship, including value appropriated but

27 For financial statement profits the rendition of equation (1.1) is: profits = revenue – costs.

*not* created (value transfer-IN). As a result, elites generate the largest flows of residual income, which over time accumulate into the largest stocks of wealth in the economy.

Under the hypothetical conditions of ‘equalized bargaining power equilibrium prices’, residual income equals value creation. Yet as business practice moves away from these conditions, equation (1.1) becomes too elementary and therefore inadequate. We have already discussed how, with asymmetric bargaining power levels, the party holding the power advantage can and will leverage their power differential to maximize residual income (by reducing the value appropriation of the counterparty). Value transfer-IN accrues to the residual income of the principal. Therefore, and in the context of sustainable value creation, the residual income (of the principal and the stakeholders) will account for ‘net value extraction’—which is in turn later described in equation (3.3) as transfer-IN minus transfer-OUT. This amount (regardless of whether the net of transfer-IN/OUT is positive or negative) is added to (or, if negative, offset against) the amount of (principal and stakeholder) ‘net value creation’—described in equation (2.3) as value appropriation minus transfer-IN. Further, and referencing VCA language, residual income (profits) is deemed to be ‘net value appropriation’—formulated in equation (3.4) as ‘net value extraction’ plus ‘net value creation’. The residual income expressions referencing the VCA framework follow:

$$\text{residual income} = \text{net value creation} + \text{net value extraction} \quad (1.2)$$

$$RI_t = NVc_t + NVe_t \quad (1.2a)$$

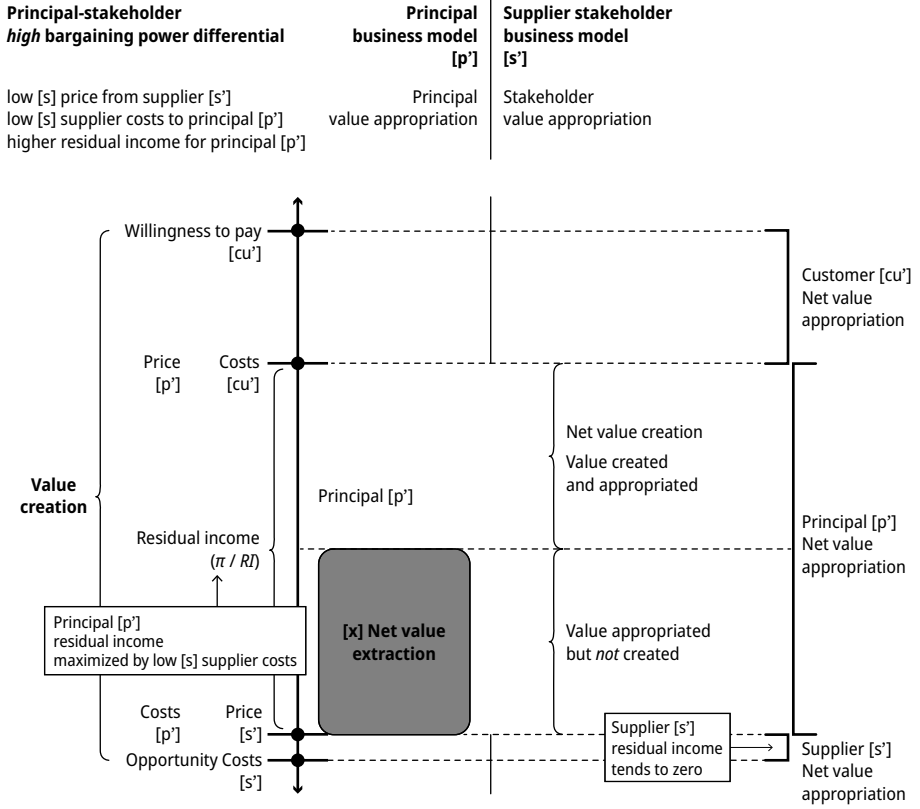
$$\text{residual income} = \text{net value appropriation} \quad (1.3)$$

$$RI_t = NVa_t \quad (1.3a)$$

Figure 2.6 backs up the above discussion and visually renders equations (1.1), (1.2) and (1.3) and their conceptual elements.

Theoretically, a principal with power can extract value from a stakeholder up to marginal subsistence levels (in reference to Marxist wages). In situations approaching this hypothetical limit (as illustrated in Figure 2.7 below), the value appropriation of the principal increases (the slice of the pie) while that of the other stakeholders (in this case the supplier) correspondingly decreases. The supplier stakeholder’s value created but *not* appropriated is so large that value appropriation tends towards zero and could even be negative, below Marx’s “cattle-like existence” level (see the responses to extraction outlined in Table 5.1). On the other side, the principal’s value appropriated but *not* created (value transfer-IN) increases residual income when it exceeds value created but *not* appropriated (value transfer-OUT). The difference between the two is net value extraction; technically the net of value transfers, see equation (3.3). This line of reasoning implies that hefty residual incomes and extraordinary profiteering (due to all forms of transfer activities, from pollution to share buybacks) are evidence of a political economy landscape with uneven accumulations of bargaining power sourced through ‘political economy know-how’ and characterized by price levels far removed from ‘equalized





**Figure 2.7:** Bargaining power differential: Principal maximizes value appropriation.

transfer-OUT (value created but *not* appropriated), which occurs as long as stakeholders exist at the short end of bargaining power differentials. This is the case when salaries are higher than industry standards for comparable work and so the firm suffers transfer-OUT which equals lost residual income (as in scenario 1/2, Figure 2.5). Transfer-OUT is thus still part of a firm's value creation—the part not appropriated. In this sense, the respective descriptions of value creation by the principal, or by any stakeholders, are:

$$\begin{aligned} \text{value creation}(\text{principal}) &= \text{net value creation}(\text{principal}) \\ &\quad + \text{transfer-OUT}(\text{principal}) \end{aligned} \quad (2.1)$$

$$VC_{t,\text{principal}} = NVC_{t,\text{principal}} + V_{t,\text{principal}}^{\text{out}} \quad (2.1a)$$

$$\begin{aligned} \text{value creation}(\text{stakeholder}) &= \text{net value creation}(\text{stakeholder}) \\ &\quad + \text{transfer-OUT}(\text{stakeholder}) \end{aligned} \quad (2.1')$$

$$VC_{t,\text{stakeholder}} = NVC_{t,\text{stakeholder}} + V_{t,\text{stakeholder}}^{\text{out}} \quad (2.1b)$$

The value creation of a business model is therefore the sum of all value creation components by the principal and the stakeholders in equation (2.2). The premise is that value jointly created can be computationally disentangled in discrete components, each attributed to one or the other party (see the discussion on redistribution and AI in Section 8.2.5). Conceptually, one could add to this amount the net value extraction by the principal and all stakeholders as is set out in equation (2.2'). Yet the addition of this component would be of no material consequence because the sum of all net value extraction in a chain of value equals zero. The positive/negative net value extraction amounts—net value extraction equals transfer-IN minus transfer-OUT, see equation (3.3)—of all principals and stakeholders in a business model offset each other and hence the addition of this term in equation (2.2') is a zero-sum.

$$\begin{aligned} &\text{value creation}(\text{business model}) \\ &= \Sigma [\text{value creation}(\text{principal}), \text{value creation}(\text{stakeholders})] \end{aligned} \quad (2.2)$$

$$VC_{t, \text{business model}} = \sum VC_{t, \text{principal}}, VC_{t, \text{stakeholder}} \quad (2.2a)$$

$$\begin{aligned} &\text{value creation}(\text{business model}) = \Sigma [\text{value creation}(\text{principal}), \text{value} \\ &\text{creation}(\text{stakeholders})] + \Sigma [\text{net value extraction}(\text{principal}), \\ &\text{net value extraction}(\text{stakeholders})] \end{aligned} \quad (2.2')$$

$$VC_{t, \text{business model}} = \sum VC_{t, \text{principal}}, VC_{t, \text{stakeholder}} + \sum NVE_{t, \text{principal}}, NVE_{t, \text{stakeholder}} \quad (2.2b)$$

Net value creation is the first-order productive activity (by any party) that is appropriated. One calculation method for this is value creation minus the value created but *not* appropriated and lost to counterparties as value transfer-OUT. This is described in equation (2.3) below:

$$\text{net value creation} = \text{value creation} - \text{transfer-OUT} \quad (2.3)$$

$$NVC_t = VC_t - Vt_t^{\text{out}} \quad (2.3a)$$

An alternative method to establish net value creation is through the value appropriation (rather than value creation) approach. The value transfer-IN (value appropriated but *not* created and taken from counterparties) must be subtracted from value appropriation to reach net value creation amounts, as in equation (2.3'). Equation (2.3'') swaps value appropriation for revenue adjusted, with the formulation below later used for the operationalization of sustainable value creation measurements (e.g., VCp/VCr):

$$\text{net value creation} = \text{value appropriation} - \text{transfer-IN} \quad (2.3')$$

$$NVC_t = Va_t - Vt_t^{\text{in}} \quad (2.3b)$$

$$\text{net value creation} = \text{revenue adjusted} - \text{transfer-IN} \quad (2.3'')$$

$$NVC_t = R'_t - Vt_t^{\text{in}} \quad (2.3c)$$

### Equations for value appropriation and transfers (3/9)

Value appropriation is evidently an ultimate strategic management objective for those in charge of organizations or running business models. The equations for value appropriation are now formalized. The first equation (3.1) is a tautology where the VCA framework notion of value appropriation corresponds to revenue. However, to differentiate this revenue from generally accepted accounting notions, it is termed ‘revenue adjusted’. Just as residual income denotes the (net) profit on the statutory P&L statement in the previous equations, revenue adjusted ( $R'$ ) closely mirrors and is derived from revenue, albeit with a technical adjustment<sup>29</sup> for the purpose of establishing value appropriation:

$$\text{value appropriation} = \text{revenue adjusted} \quad (3.1)$$

$$Va_t = R' \quad (3.1a)$$

Revenue adjusted is revenue associated with net value creation and transfer-IN, meaning that revenue not associated with these two elements is not to be included in  $R'$ . Value appropriation (which might differ from statutory revenue in the P&L statement) is the revenue that an organization generates adjusted for value and is conceptualized in the next equations (3.2) and (3.2') as the sum of ‘net value creation’ (which is value creation minus the value transfer-OUT) and value transfer-IN (value appropriated but *not* created).

$$\begin{aligned} \text{value appropriation(principal)} &= \text{net value creation(principal)} \\ &+ \text{transfer-IN(principal)} \end{aligned} \quad (3.2)$$

$$Va_{t,principal} = NVC_{t,principal} + Vt_{t,principal}^{in} \quad (3.2a)$$

$$\begin{aligned} \text{value appropriation(stakeholder)} &= \text{net value creation(stakeholder)} \\ &+ \text{transfer-IN(stakeholder)} \end{aligned} \quad (3.2')$$

$$Va_{t,stakeholder} = NVC_{t,stakeholder} + Vt_{t,stakeholder}^{in} \quad (3.2b)$$

Value appropriation equations obviously do not account for value transfer-OUT, as this is value created but *not* appropriated and not included in the P&L. Such transfer-OUT

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<sup>29</sup> The adjustment factor calculation is left for further research. Nerlinger (in various conversations with the author in 2022) suggests borrowing from the “net value added” (NVA) approach (from value added reporting literature and practice) to craft a formulation of revenue adjusted ( $R'$ ) conceptually consistent with the theoretical disquisition of this chapter. Value added reporting, “a type of social reporting model based on conventional accounting, which is focused on how companies create value and how that value is distributed among each category of stakeholders” is a tool suitable for sustainability (Aldama & Zicari, 2012). Conceptual problems (Rutherford, 1977) are also being addressed in the field of finance to make it fit for “integrated reporting” (Haller & van Staden, 2014). Note that in economics, ‘NVA’ is distinctly defined from the field’s own perspective: “Net value added is the value of output less the values of both intermediate consumption and consumption of fixed capital” (United Nations Statistics Division, n.d).

amounts do matter to the sustainable value creation of the business model even if they are missed or forfeited revenue (revenue adjusted) and residual income (profits). Therefore, value transfer-OUT is included in the ‘net value extraction’ equation (3.3) as a mathematical negative set against the positive transfer-IN amount. Net value extraction has already been conceptually discussed as the net of all the (extractive/inclusive) value transfer-IN/OUT amounts in the business model. The net value extraction amount is usually positive for elite business model principals, while for non-elite stakeholders it is usually negative. The notion represents a party’s extractive value transfer-IN (value appropriated but *not* created from counterparties) set against the inclusive value transfer-OUT (value created but *not* appropriated by all the counterparties), where:

$$\text{net value extraction} = \text{transfer-IN} - \text{transfer-OUT} \quad (3.3)$$

$$NVe_t = Vt_t^{in} - Vt_t^{out} \quad (3.3a)$$

When the value chain perspective is applied to the profits recorded in the P&L statement these are termed in this inquiry as residual income, which also requires them to be adjusted (mirroring the earlier discussion on revenue/revenue adjusted). In VCA framework terms, residual income is net value appropriation, which is linked to the notions of net value creation and net value extraction. Net value appropriation refers to all the value the business model has been able to appropriate, and that includes reckoning the sum of the value transfer-IN/OUT amounts from all the counterparties (net value extraction) plus the sum of the model’s own value created *and* appropriated (net value creation). Unpacking the two constitutive variables of the net value appropriation equation (3.4) lets it be expressed as equation (3.4’), and then as the more elegant, though at first sight possibly less intuitive, equation (3.4’’) that subtracts value transfer-OUT from value appropriation:

$$\text{net value appropriation} = \text{net value creation} + \text{net value extraction} \quad (3.4)$$

$$NVa_t = NVC_t + NVe_t \quad (3.4a)$$

$$\begin{aligned} \text{net value appropriation} = & [\text{value appropriation} - \text{transfer-IN}] \\ & + [\text{transfer-IN} - \text{transfer-OUT}] \end{aligned} \quad (3.4')$$

$$NVa_t = (Va_t - Vt_t^{in}) + (Vt_t^{in} - Vt_t^{out}) \quad (3.4b)$$

$$\text{net value appropriation} = \text{value appropriation} - \text{transfer-OUT} \quad (3.4'')$$

$$NVa_t = Va_t - Vt_t^{out} \quad (3.4c)$$

As discussed, the P&L statement notion of revenue (R) can be used to derive revenue adjusted (R’) in the value chain perspective that in turn matches value appropriation (Va); the P&L statement notion of profits ( $\pi$ ) parallels the value notion to residual income (RI) which here corresponds to net value appropriation (NVa). The appropriation perspective fully closes a circle by reverting to equation (1.3) where net value

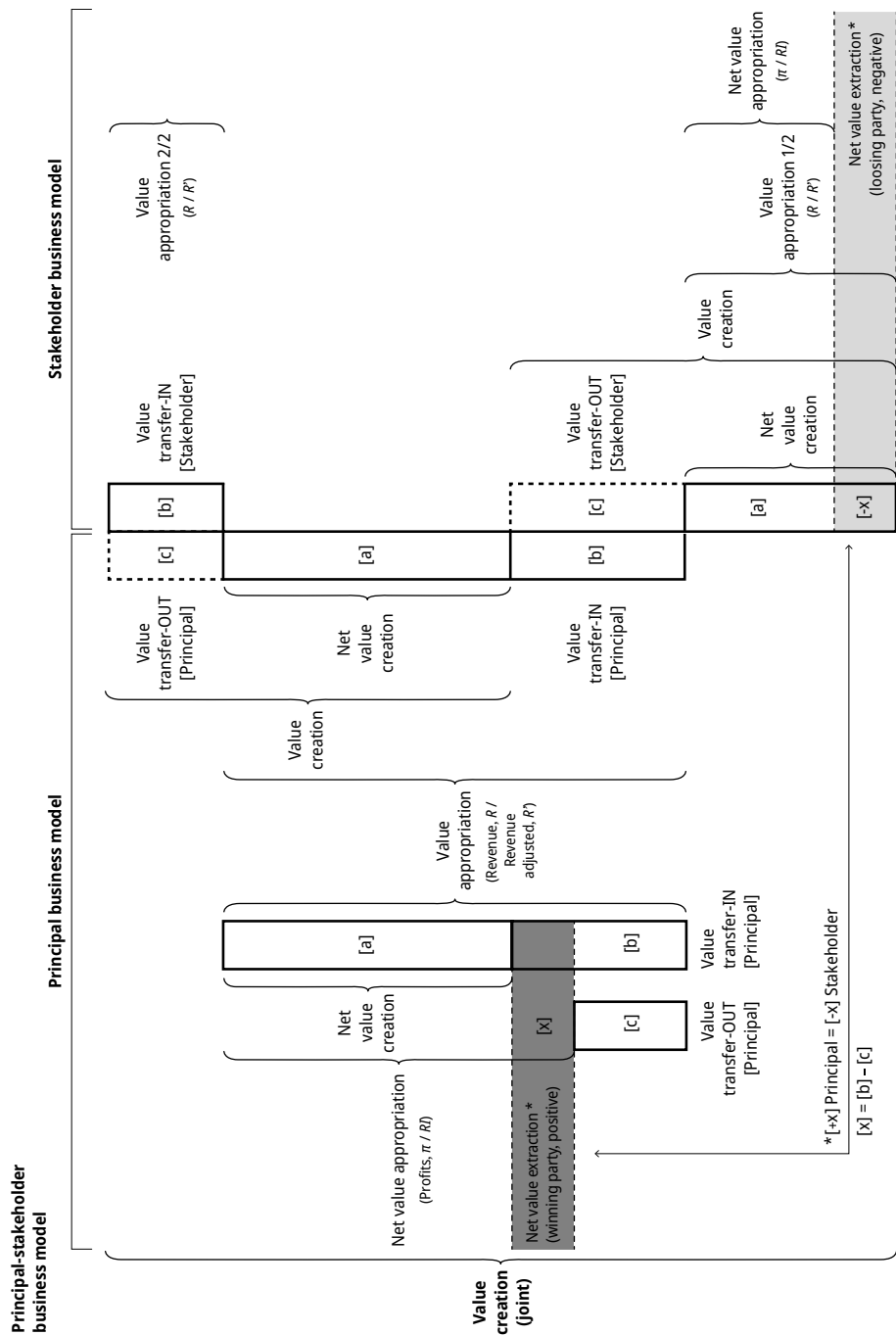
appropriation equals residual income. The net value appropriation equation (3.4) hence makes residual income (profits) equivalent to the sum of net value creation plus net value extraction.

Note that the ‘value creation’ annotation in the value chain schema of Figures 2.4–2.7 depicts joint value creation. A visualization schema referencing the VCA framework and emphasizing the key conceptual business model elements in the value chain, for both the principal and stakeholders, is provided in Figure 2.8 and includes: value creation, value appropriation (revenue/revenue adjusted), transfer-IN/OUT and the resulting net value extraction, as well as the net value appropriation (profits/residual income). It should also be noted that both the principal and the stakeholder manage transfer-IN (at the cost of the counterparty’s transfer-OUT). How so? To illustrate the multi-layered and complex nature of even a single principal-stakeholder relationship one might imagine a firm (principal) and its national government (stakeholder). The firm benefits from government subsidies not provided to its competitors (transfer-IN), while at the same time delivering social services for underprivileged citizens traditionally supplied by the government (transfer-OUT) that cost it less than the subsidies it receives.

Both principals and stakeholders need to appropriate value—first in the form of revenue—and then generate profits (by maximizing prices, including via transfer-IN, by minimizing costs, including via transfer-OUT) to sustain operations. This self-evident principle applies to all business models including those with principal-stakeholder relationships beyond the traditional types depicted in Table 2.2 and Figures 2.4–2.7 (i.e., suppliers, customers, employees, etc.). For instance, one might think of the unconventional stakeholders of non-fungible token (NFT) business models identified by Wilson, Karg and Ghaderi (2021): individual creators (originators of audio, art, or metadata), content owners with vested ownership rights (art dealers, media companies, or sport agencies), core intermediaries (such as the Ethereum Foundation providing the infrastructure), technical non-core intermediaries (such as the developers of proprietary ecosystems like Dapper Labs), related business non-core intermediaries (such as OpenSea marketplace), and stakeholders claiming ownership to the digital record (including consumers, collectors, investors, or speculators). Of course, in the case of NFTs, the value chain roles of the elite principal and the non-elite stakeholder business models are evolving as different parties seek to realize their division of value strategies. Eventually, and if the “asset pricing bubble” (Barbon & Ranaldo, 2023) does not kill off NFTs, an elite will invariably emerge as the party that manages to accumulate the most bargaining power and appropriate the largest amounts of transfer-IN while minimizing its own transfer-OUT.<sup>30</sup>

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<sup>30</sup> Whether Ethereum would then become the principal of the NFT business model in the way that Microsoft is the chief orchestrator and value appropriator of personal and office computing value chains is also anybody’s guess. Despite narratives of decentralization, the elite dominance iron law is structural to society (see Proposition 1) and applies to any blockchain project in the same way that it does to software or petroleum.



**Figure 2.8:** Selected conceptual elements of the business model based on the VCA framework and adjusted for the ETED.

As was pointed out when introducing equation (2.2'), the net value extraction across the economy is zero-sum. Assuming frictionless transfers, all value transfer-OUT and transfer-IN amounts offset each other across business models because one party's business model value transfer-IN is the counterparty's business model value transfer-OUT. This is so even when some of the specific value transfer-OUT amount that benefits stakeholders, such as a positive externality, is almost impossible to price, quantify, and attribute. This is also the case when second-order value transfers (associated with transfer-IN) are conceptually speaking diametrically distinct from first-order value creation (which includes transfer-OUT) (see Table 2.3 or the discussion of rent-seeking theory in Section 5.2). The transfer-IN/OUT argument yields the identities:

$$\text{transfer-IN(principal)} = \text{transfer-OUT(stakeholder)} \quad (3.5)$$

$$V_{t,\text{principal}}^{\text{in}} = V_{t,\text{stakeholder}}^{\text{out}} \quad (3.5a)$$

The reverse perspective is:

$$\text{value transfer-IN(stakeholder)} = \text{value transfer-OUT(principal)} \quad (3.5')$$

$$V_{t,\text{stakeholder}}^{\text{in}} = V_{t,\text{principal}}^{\text{out}} \quad (3.5b)$$

Finally, for a given principal, the total amount of transfer-IN is the sum of the transfer-IN from all principal-related stakeholders, which corresponds to the sum of the transfer-OUT from all stakeholders with whom the principal has a relationship, as is described in equation (3.6):

$$\begin{aligned} \text{transfer-IN(principal)} &= \Sigma (\text{principal value transfer-IN from } n \text{ stakeholders}) \\ &= \Sigma (n \text{ stakeholders transfer-OUT to principal}) \end{aligned} \quad (3.6)$$

$$V_{t,\text{principal}}^{\text{in}} = \sum_n^N V_{t,\text{principal of stakeholder}_n}^{\text{in}} = \sum_n^N V_{t,\text{stakeholder}_n}^{\text{out}} \quad (3.6a)$$

For sustainable value creation operationalization purposes, transfer-IN and transfer-OUT amounts are calculated from constituent sustainable value creation (SVC) metrics (see Section 6.6.1). As per equations (3.7) and (3.8) below, the transfer-IN of a firm (whether principal or stakeholder) is the sum of the entire transfer-IN amounts for all the available SVC metrics used to operationalize sustainable value creation; likewise, the transfer-OUT of a firm is the sum of the entire transfer-OUT amounts for all the SVC metrics.

$$\text{transfer-IN(firm)} = \Sigma (n \text{ transfer-IN metrics}) \quad (3.7)$$

$$V_{t,\text{principal}}^{\text{in}} = \sum_n^N V_{t,\text{metrics}_n}^{\text{in}} \quad (3.7a)$$

$$\text{transfer-OUT(firm)} = \Sigma (n \text{ transfer-OUT metrics}) \quad (3.8)$$

$$V_{t,\text{principal}}^{\text{out}} = \sum_n^N V_{t,\text{metrics}_n}^{\text{out}} \quad (3.8a)$$

The analytical framework developed to establish elite business models' division of value strategies in Proposition 9 is rendered graphically for the entire business model (see Table 2.2) with the template provided by Garcia-Castro and Aguilera's "Value creation and appropriation with multiple stakeholders" and its "vertical chain of value decomposition" (2015, pp. 138, 140, Figure 2). The principal business model of Figure 2.9 articulates for all stakeholder relationships value creation and value transfers, with the latter including value appropriated but *not* created (i.e., transfer-IN by the principal in the form of low labor costs from the labor stakeholder) and value created but *not* appropriated (i.e., transfer-OUT from the principal in the form of higher costs of materials and services from the supplier stakeholder).

To close this section, it should be highlighted once more that extractive activities might occur on either side of the principal-stakeholder relationship (see the examples in Table 2.2); a positive net value extraction balance is, after all, the aspiration of every single division of value strategy (including those of non-elites). Success necessitates the securing of sources of bargaining power (see Figure 2.3). The field of strategic management concerned with firm performance examines strategies for both value creation and appropriation (also referred to as "capture", e.g., Brandenburger, 2002; Lepak, Smith, & Taylor, 2007; Garcia-Castro & Aguilera, 2015). The ETED, with its concern for economic development, emphasizes value appropriated but *not* created (transfer-IN) given its perverse impact on the incentive system.

Alesina and Rodrik (1994, p. 465) wrote: "A crude distinction between economics and politics would be that economics is concerned with expanding the pie while politics is about distributing it". A world free from bargaining power differentials, and with zero transaction costs in the sense of Coase (1960; Medema, 1994), would have value appropriation equal value creation. Value transfers would tend to zero and only be permissible under certain ethical principles and logics like the 'alternating value extraction and value creation' conjecture (discussed next in Section 2.3.1). Distributional games would largely be irrelevant residues of the past with energies instead being intensely focused on 'expanding the pie' and putting economic and human development on an ascending trajectory running on autopilot. In such a world, maybe that of an omniscient, omnipotent and technocratic superintelligence (see the discussion on AI in Chapter 8), the "politics" described by Alesina and Rodrik would simply not exist. Yet reality is such that value transfers and redistribution away from value creators are a principal avenue to residual income flows and wealth stocks. As a result, division of value strategies must for now rely on power differentials accrued in the contest arenas of the political economy.

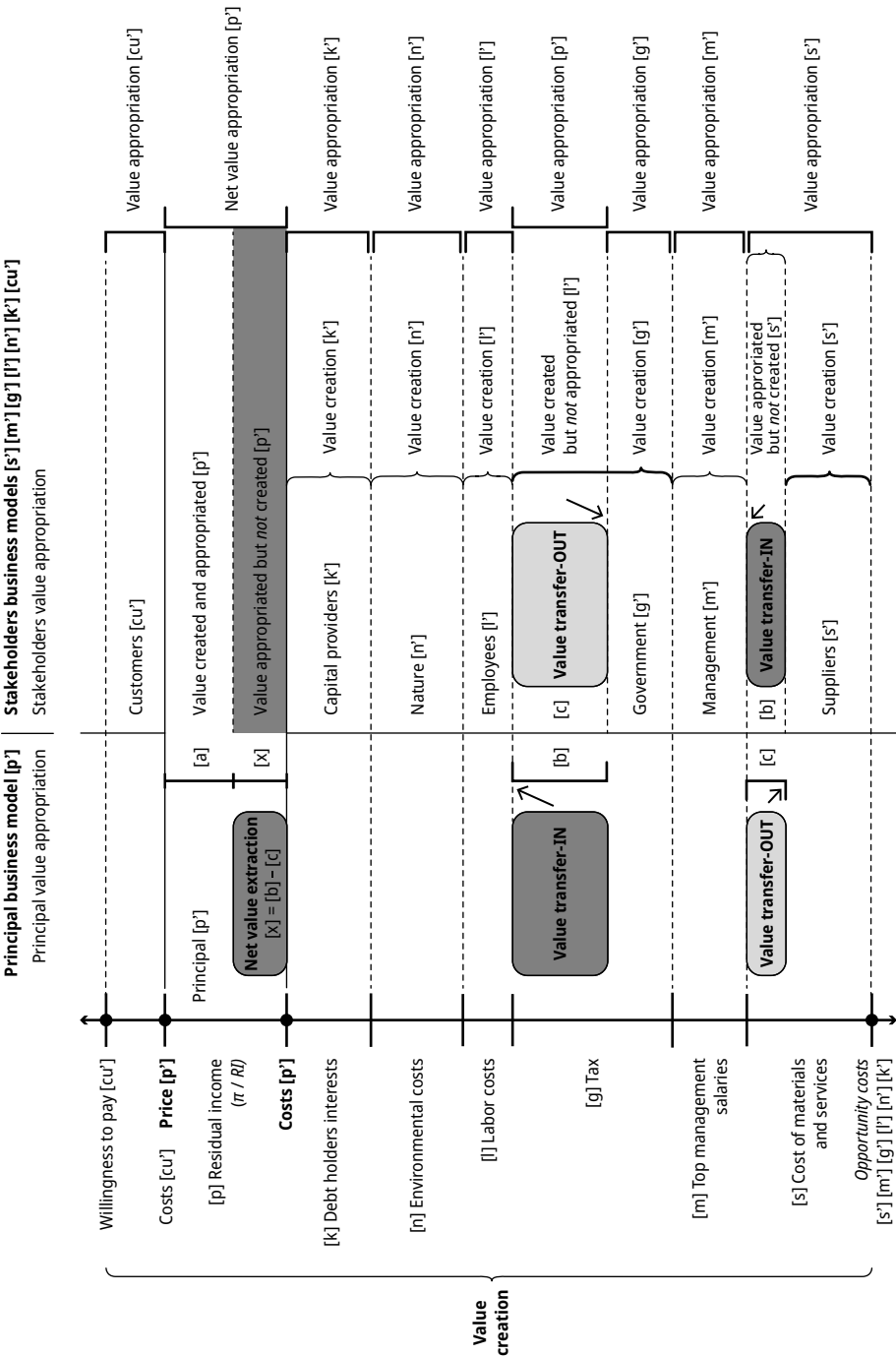


Figure 2.9: Principal and stakeholder business models across the value chain.<sup>31</sup>

## 2.3 Propositions on value creation and value transfers as extraction

The importance of bargaining power differentials was discussed in relation to value appropriation (Proposition 8), while the VCA framework was employed to provide the foundation for the division of value strategies (Proposition 9). This section goes a conceptual step further. First, Proposition 10 describes actual value creation in practice by differentiating between first-order productive and risk origination activities and second-order value and risk transfer activities on the basis of the ‘value is created or transferred’ ontological assumption of the ETED. Development occurs when first-order productive activities (value creation) preponderate over second-order transfer activities (value extraction), certain caveats, such the conjectured ‘alternating value extraction and value creation’ and its ‘extractive push’ dilemma notwithstanding. Next, Proposition 11 asserts that all elite business models have a position on a spectrum that ranges between the extremes of absolute value creation (all activities are first-order productive activities) and absolute value extraction (all activities are second-order transfer activities). This is the ‘business model value creation spectrum’ (hereinafter also referred to as the ‘value spectrum’), a conceptual element that, together with others proposed in the ETED, advances the firm-level sustainable value creation measurements: the Value Creation Position (VCp) and Value Creation Rating (VCr). These measurements, along with all of the equations developed in this work, are summarized at the end of this section in Table 2.4.

### 2.3.1 Proposition 10: Sustainable value creation results from the proportion of first-order productive activities (value creation) relative to second-order transfer activities (value extraction)

(. . .) the operators of two dams, one upstream of the other, sued one another repeatedly at least from the second half of the thirteenth century until the beginning of the fifteenth, when the downstream dam finally succeeded in driving the other out of business as the latter ran out of money to pay the court fees. (Gimpel, 1976, p. 17–20, as cited in Baumol, 1990, p. 907)

Value appropriated but *not* created (value transfer-IN) moves value away from the original value creators. This leads us onto the ontological foundation of the ETED, now made explicit (see also Figure A5.4a). Ontology “is concerned with ‘what is’, with the nature of existence, with the structure of reality as such” (Crotty, 2003, p. 10). This work holds—adhering to the principle of parsimony—that the nature of socio-economic relations and activity is that ‘value is created or transferred’. A large body of literature exists in economics on value transfers and rent seeking and is examined in Section 5.2.1. To the business model,

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<sup>31</sup> Conceptual extension based on Figure 2 in Garcia-Castro and Aguilera (2015, p. 140). Note that (as pointed out in Section 1.2.4) in order to determine residual income, creditors (debt holders) interests are assumed to be costs. That is, creditors are stakeholders whose value appropriation claims are not substantially different from those of other stakeholders.

any income-generating value transfer activity, like the wins from the litigation in the above example, is ‘second-order’, while the direct value creation, the provision of water management services, is ‘first-order’. This sequential logic helps to establish extractive value transfers (the beneficiary’s transfer-IN) in the principal-stakeholder relationship. A classification schema that builds on the dualism of the ontological assumption of the ETED and assesses which activities cause or constitute second-order value transfers away from the original value creators is essential (and attempted in Table 2.3). This dichotomous separation and understanding of business model activity highlights a vexing developmental (and ethical) problem since value that is jointly created in a collaborative fashion by the principal and stakeholders is not appropriated according to the respective contributions made and is often transferred away from one party to the other. Under the hypothetical condition of ‘equalized bargaining power equilibrium prices’ (Section 2.2.2) no such value transfers may occur, and, as a result, all activities are first-order productive.

Economic life starts with value creation (see the definitions of value in Section 2.2.2 and value creation in Section 2.2.3). Millennia ago in *The Arthashastra*, Kautilya (1992, pp. 13, 15) stressed that *artha* (or wealth in the sense of *The Wealth of Nations*) is “the source of the livelihood of men”, urging kings to engage in “economically productive activity” on the premise that first-order value creation is the material foundation for everything else in the state. That includes the fruitful activities of economic agents which in the widest sense include farmers, workers, soldiers, professionals, researchers, micro-enterprises, corporations, banks, NGOs, governments, and the vitally important Smithian “productive powers of labour” (1776/1904, p. 5). A key test for value creation is whether there is ‘skin in the game’, a given in fields such as “plumbing, dentistry, surgery, engineering, activities where operators are evaluated by tangible results or subjected to ruin and bankruptcy” (Taleb, 2020, p. 13). Productive value creation is termed a first-order activity because it can exist on its own terms, while second-order value transfer activities cannot exist without the presence of first-order activities. Value creation activities are also quite self-evident and include agriculture, manufacturing, trading, innovation, financial and other services, the building of something (often from nothing), and the origination and bearing of risk. Value extraction activities, on the other hand, are transfers that occur only because of value creation and risk origination (and bearing) elsewhere in society; they represent the appropriation by one economic agent of value previously created by another party. Many examples of second-order transfers are provided throughout this work, an extreme one being the Troubled Asset Relief Program (TARP), the bailout of the financial system under the Emergency Economic Stabilization Act of 2008, which saw US taxpayers relieving the risk originators from their massive losses. More commonplace instances include the excessive taxation of SMEs to support an unproductive civil service or any number of white elephant projects. In this work, second-order value and risk transfers are seen as the principal cause of regressive economic development. First-order value creation activities are, on the other hand, invariably positive and the *condicio sine qua non* for all economic and human development. It will be argued that the mechanisms that enable value transfers—the second-order activities—are the political economy.

It is necessary to stress that a most important form of value creation and transfer relates to risk and the coupling or decoupling of its origination and bearing. Whether one considers a current transition to fusion energy or to iron in Bronze Age societies, elites “either delay or accelerate the speed of spread of the innovation” on account of their strategic willingness to undertake, often massive, investment risks (Kim, 2001, pp. 472–473). As a rule, all business activities and value creation are associated with levels of risk. Since Markowitz (1952), the formalized relationship between risk and return has been a tenet of finance. Investing in potentially high value creation projects generally means exposure to high levels of risk. The “reckless” bets of the uncertainty undertaker can create value that leads, as long as new value is appropriated, to “wild success”:

Elon Musk illustrates [that] solid financial success is largely the result of skills, hard work, and wisdom. But wild success (in the far tail) is more likely to be the result of reckless betting, extreme luck, & the opposite of wisdom: folly. [. . .] Go back and check the numerous times when Tesla was on the brink of going bust. (Taleb, 2022)

Value creation and risk origination, including its ‘wildest’ form, are interchangeable and equivalent in the financial sense. Risk bearing, especially as a consequence of undertaking Knightian uncertainty, is essential for value creation, as is evident in Damodaran’s (2005) firm valuation frameworks. Rent seeking therefore includes value appropriation without the commensurate exposure to risk, as well as its opposite, the “transfer of harm”, a notion developed by the polemicist Nassim Taleb in *Skin in the Game* (2018) where “one does not bear the full risks and negative consequences of one’s actions” (p. 244). In short, all references to ‘value creation’ in the ETED must also be understood in terms of ‘risk origination’, and the bearing of risk. Value creation requires those operating the business model to have skin in the game. Those that do not should not appropriate value.

Wins in the political non-market and societal narrative market arenas attained through ‘political economy know-how’ (see Figure 2.3) become problematic from a sustainable development perspective if they lead to institutionally sanctioned value and risk transfers. Such wins provide *de jure* or *de facto* institutional cover for activities such as price ceilings, exclusive licenses, cartels, exchange restrictions (such as non-tariff trade barriers), litigation, taxation, subsidies, guarantees, bailouts, and even theft. Value and risk transfer activities are examined in further theoretical detail in the literature review of rent seeking (Section 5.2), Bastiat (1845/1996, pp. 8–9), and here Buchanan (1980, p. 9) provides a preview of their economic nature: “Governmental licenses, quotas, permits, authorizations, approvals, franchise assignments—each of these closely related terms implies arbitrary and/or artificial scarcity created by government”. Turchin’s “wealth pumps” (2023) is an apt metaphor for such value transfer models. Table 2.3 reflects the dualist ontological assumption that ‘value is created or transferred’ and accordingly lists business model activities categorized into two fundamental types:

**Table 2.3:** A typology of business model activities referencing value.

| <b>Business model activity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Value creation</b><br><i>First-order productive activity</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Value extraction</b><br><i>Second-order transfer activity</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>– ‘Sustainable risk origination’ that bears the associated risk exposure (of actual and potential losses)</li> <li>– The Smithian “productive powers of labour”</li> <li>– Skilled and unskilled trades, the professions</li> <li>– Intrapreneurship, entrepreneurship</li> <li>– Productivity growth, incremental innovation</li> <li>– Handicrafts, industrial production and other manufacturing sectors</li> <li>– Agriculture and food production activities</li> <li>– Services, trade and exchange</li> <li>– Finance<br/>Incl. hedge funds, risk and venture capital, private equity and debt, Swiss private banks with partner liability (i.e., until the shift to corporate partnership structures on January 1, 2014)</li> <li>– Radical innovation</li> <li>– Art, in all of its forms</li> <li>– Specialization</li> <li>– Human capital development</li> <li>– Networks and value co-creation<br/>Incl. e-commerce, social media platforms, cloud computing, crowdsourcing</li> <li>– Positive externalities<br/>Incl. knowledge spillovers, vaccinations</li> </ul> | <ul style="list-style-type: none"> <li>– ‘Unsustainable risk origination’ that transfers risk, transfers harm, hides risk, and benefits from the risk origination of others</li> <li>– Trade and exchange restrictions<br/>Incl. tariffs, non-tariff barriers, quotas</li> <li>– Regulation, licenses, patents, and bureaucracy</li> <li>– Price floors and ceilings</li> <li>– Taxes, confiscations, and subsidies</li> <li>– Discrimination, bigotry, favoritism in all of its forms</li> <li>– Clientelism, client politics, patronage</li> <li>– Corruption<br/>Incl. bribery, embezzlement, nepotism</li> <li>– Monopolies, oligopolies, and cartels<br/>Incl. market dominance, “too big to fail” (TBTF) and “too big to jail”</li> <li>– Monetary policies<br/>Incl. inflation, negative interest rates</li> <li>– Litigation aimed at certain transfers</li> <li>– Environmental destruction</li> <li>– Criminal activity<br/>Incl. unlawful theft, extortion, murder</li> <li>– Negative externalities<br/>Incl. antibiotic resistance, AI misalignment</li> </ul> |

first-order productive activities (i.e., value creation and risk origination and bearing) and second-order transfer activities (i.e., value extraction and risk transfer).<sup>32</sup>

The distinction between ‘first-order productive activities’ and ‘second-order transfer activities’ in Table 2.3 is essential for the inquiry into micro-level (firm) and macro-level (the economy) sustainable value creation. The two activity types are separated by the

<sup>32</sup> A key limitation of Table 2.3 is that the activities listed are only broad brushstroke indications of value creation and extraction. They should also not be confused with the business model *per se*, which in itself is a complex bundle of activities. For instance, an agricultural model might produce valuable crops (classified here as a first-order productive activity) while employing unsustainable farming practices that overly rely on chemical pesticides and fertilizers that deplete the soil and constitute extraction by *de facto* impeding future value creation (classified here as a second-order transfer activity). Sustainable value creation measurements (like the VCp/VCr) must provide a transparent view of these two types of activities in their respective proportions.

‘revenue is value creation unless value transfer is proven’ (constructive) implication, itself an application of a ‘bona fide value appropriation’ (positive) assumption (see Figure A5.4b) where all the revenue (and profit) of a business model is deemed in good faith to be net value creation. This rule is integral to the ETED and its operationalization as this inquiry advances the concept of sustainable value creation on the basis of a distinction between first-order productive and second-order transfer activities. Sustainable value creation at the business model level is the proportion of each class of these activities (measured by metrics, which in this work are aggregated into firm-level VCp/VCr scores, see Section 6.6.1). At the macro-economy level, sustainable value creation refers to the proportion of first-order productive and second-order transfer activities on aggregate, i.e., for all elite business models in society (measured, for instance, by the EQx in international comparative terms for the elite systems of nations). Again, sustainable value creation is consistent with both the sustainable development concept of the *Report of the World Commission on Environment and Development: Our Common Future* (1987), with its emphasis on the needs of future generations, and the focus of von Carlowitz (1712/2022) on the business model (see Section 2.1.1, Proposition 5).

It is important to dwell further on value transfers as these come with conceptual issues of their own. First, they are omnipresent and figure in all socio-economic relations. Every business model in society includes activities designed to transfer value away from original value creators, albeit to varying degrees. Second, establishing whether a value ‘transfer’ happens (or does not) is technically not always a clear-cut exercise and requires a valid framework. For instance, Baumol (1990, 2010) takes to task litigation and corporate takeovers in their rent-seeking modes while both activities can also clearly lead to value creation. Third, certain value transfers intend—as ‘third-order’ transfers, one might say—to reverse or compensate for previous second-order transfers (see Section 8.2.4 on redistribution). Litigation or green energy subsidies fit this description: a court sentence might result, for example, in a compensatory transfer from an offender back to the aggrieved party, while the tax credits for electric vehicles under the Inflation Reduction Act (2022) aim to mitigate inter-generational transfers of ecological resources from future generations to the present. Fourth, the literature on welfare economics and its analysis of positive/negative externalities (Pigou, 1920/1932; Coase, 1960; Buchanan & Stubblebine, 1962; Baumol, 1972; Bueno de Mesquita, 2016) addresses both value (and risk) creation and transfers (transfer-IN/OUT) and provides an important reference for the calculation of sustainable value creation (SVC) measurements (see Section 5.3.1). Fifth, certain first-order productive value creation activities are, due to their nature, inseparable from and inevitably bundled with second-order value transfer activities. Does innovation not require the grant of exclusivity—patents—that produce rents for the patent holders at the expense of technology users?

The fact that value extraction—again, second-order value transfers away from first-order producers—is sometimes a prerequisite for subsequent sustainable value creation is formalized in the ‘alternating value extraction and creation’ conjecture. Examples abound, with taxation probably being the most salient of these. Without

such second-order transfers there are no state investments in public infrastructure, health, or education that enable individuals and organizations to create value. Additional reasons for transfers are described in the ample literature and illustrate how they address market failures in the provision of public goods (e.g., Comes & Sandler, 1996). The most sweeping examples of such transfers are related to violence and its suppression. North, Wallis, and Weingast race through the historical landscape from the Neolithic revolution 10,000 years ago onwards, with a conceptual framework that explains elites and how their value extraction is linked to its creation:

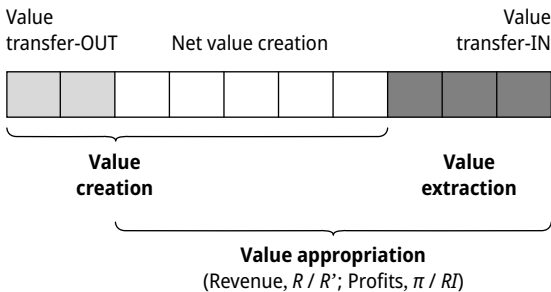
limited access orders solve the problem of containing violence by political manipulation of the economic system to generate rents by limiting entry to provide social stability and order. (North, Wallis, & Weingast, 2006, p. 4)

Similarly, the ‘extractive push’ dilemma is faced by countries as they transition from one economic development stage to the next. That is, the extractive Leviathan of Hobbes’ social contract theory (1651/2002) is the beneficiary of second-order transfers (e.g., taxes, *corvée* labor) received as a *quid pro quo* for providing public goods (e.g., social order that halts “the war of all against all”) indispensable for subsequent value creation. What if violence becomes the premise for value creation? This inquiry begs to disagree with Turchin (2016) that the centralized elite business model of war is what “made humans the greatest cooperators on earth” (do commerce or religion not provide more effective forms of collaboration than war?). The ‘alternating value extraction and creation’ conjecture does, nonetheless, present some predicaments.

The dilemma can be illustrated through the decades-long industrial policies to support Korean ‘wealth cliques’ or *chaebol* (industrial conglomerates). Without second-order transfer activities like state-sanctioned privileged access to banking funds, there would have been no “Miracle on the Han River” (Gemici, 2013) in the 1960s, nor the Samsung Galaxy of today. Without the human capital and nation building legacy of Israel’s post-independence “centrally controlled socialist” system—what Shranksky (1997) called “a cumbersome giant”—with its *kibbutzim* and dominant state-owned enterprises, the phenomenal value creation of the “start-up nation” of today (Senor & Singer, 2009) would not exist. This dilemma entails policy decisions with regard to which elite coalition should be favored. Countries that have successfully transitioned to the digital economy have accepted Big Tech national champions and their associated extractive monopolies, initially gained thanks to a ‘knowledge’ advantage that played out in the market arena. The dilemma, with its deep ethical implications, includes considerations of when to grant the ‘license to steal’, to whom, and, most critically, when to take it away (an issue that is prescriptively addressed later in this book, see, for instance, A Transfer Constraints Framework for policy formulation, Table 8.2). The assumption is that there will be no kick-start or transition to a higher phase of development without a given, optimal amount of extractive value transfer activities by elite business models.

### 2.3.2 Proposition 11: All elite business models have a measurable value creation position on a ‘value spectrum’

The ‘alternating value extraction and creation’ conjecture not only applies to the macro-level; it also operates at the level of the firm, as has been shown by ‘the Amazon dilemma’. Having established the types of business model activities more likely to correspond to value creation and risk origination (first-order productive activities) and value extraction and risk transfer (second-order transfer activities), the aim is now to operationalize these ideas by establishing sustainable value creation measurements for firm-level business models. An initial proposal is a conceptual spectrum that ranges from absolute value creation (hypothetical business models with only first-order productive activities) to absolute value extraction (those with only second-order transfer activities). Every business model in the economy (and every national elite system) is a combination of both value creation and value extraction activities. This combination is first articulated through a ‘value creation position’ (VCp) measurement, based on an assessment of revenue (value appropriation) and the value transfer-IN that is singular to the business model. These two assessments yield the VCp and are schematically represented in the ‘value spectrum’ of Figure 2.10, along with the implicit net value creation and value transfer-OUT (which is relevant to other measurements).



**Figure 2.10:** The ‘value spectrum’ (also referred to as the ‘business model value creation spectrum’).

#### Equations for sustainable value creation (SVC) measurements (4/9)

How can the sustainable value creation of a particular business model—for either the (elite) principal or a stakeholder—be determined? Two conceptual elements in the form of measurements are advanced for this purpose: the just examined Value Creation Position (VCp) and the Value Creation Rating (VCr). Both associate with the firm’s P&L statements since they are based on revenue or profits, and require the assessment of one of the two components related to value extraction: transfer-IN and transfer-OUT (again, both are derived from the VCA framework). The VCp/VCr measurements are designed to provide a micro-foundation to elucidate the economic development question. At the same time, any such firm-level sustainable value creation measurements must

directly connect to practice and be relevant for the organization and its leadership, as well as for third parties like providers of capital and regulators.

In the literature, Garcia-Castro and Aguilera's work (2015, pp. 138, 140–143) opened the path for these measurements on the premise of joint value creation (irrespective of whether value is positive or negative), conceiving of “elastic” and “inelastic” value appropriation where the “VCA elasticity” notion “captures the relationship between the value appropriated by a stakeholder and the total value created in a period of time”. On the back of successful division of value strategies, value distribution occurs between the principal and stakeholders. For instance, under “elastic” appropriation, Toyota's sustained productivity increases in the 1980s and 1990s created value that was captured by both labor stakeholders and the principal owners. Under “inelastic” appropriation—or excessive value appropriation—General Motors (suffering from generalized “low total value creation”) saw a specific stakeholder group appropriate incremental value; that is, employees enjoying higher salaries at the expense of shareholders who suffered negative capital gains (Lieberman, Garcia-Castro, & Balasubramanian, 2017).

The Value Creation Position (VCp), the first ETED sustainable value creation (SVC) measurement at the firm level, assesses the sustainability of the business model by initially benchmarking P&L statement data like revenue or profits. The VCp equation establishes the proportion of all value appropriated or firm revenue (revenue adjusted) that is derived from net value creation. Since value appropriated is net value creation plus extractive value transfer-IN, it is essential that the latter is assessed. Value transfer-IN (value appropriated but *not* created), while not specifically identified, is obviously part and parcel of financial statements and impacts both the top and bottom lines. Yet since value transfer-IN is not explicitly defined as such in the P&L, determining transfer-IN amounts associated to firm revenue and profits (i.e., to the corresponding revenue adjusted or residual income) is the key methodological challenge for calculating the VCp (see Sections 5.3.1 and 6.5 on how to determine it with recourse to its component metrics).

The VCp formulation, which can be seen as an alternative way of implementing Garcia-Castro and Aguilera's notion of “VCA elasticity” (2015, p. 138), is presented in the text version of equations (4.1) and (4.1') in terms of ‘revenue’ and ‘profit’; and in the financial version of equations (4.1a) and (4.2b) in terms of ‘revenue adjusted’ and ‘residual income’. In either case, and for all these amounts, there must be a corresponding forensic attribution to transfer-IN activities, which in turn are quantified through an appropriate set of metrics.

In the text notations of the following equations, the VCp/VCr are annotated with the P&L statement terms ‘profits’ or ‘revenue’, as in VCp(revenue) or VCp(profits). In the mathematical notations of the equations, the VCp/VCr are annotated with the value creation terms ‘revenue adjusted’ (R) or ‘residual income’ (RI), as in  $VCp_t^R$  and  $VCp_t^{RI}$ . The firm VCp results are expected to differ depending on whether revenue (revenue adjusted) or profits (residual income) are used as a basis for the calculations. Any such differences will shed important light on division of value strategies as well as on the ‘knowledge’ and

‘political economy know-how’ of the firm. Lastly, equation (4.1’’) depicts the understanding of VCp as the proportion of net value creation in relation to overall value appropriation:

$$\text{Value Creation Position, VCp(revenue)} = [\text{revenue} - \text{transfer-IN(revenue)}] / \text{revenue} \quad (4.1)$$

$$VCp_t^{R'} = \frac{R'_t - V_t^{R' in}}{R'_t} \quad (4.1a)$$

$$\text{Value Creation Position, VCp(profits)} = [\text{profits} - \text{transfer-IN(profits)}] / \text{profits} \quad (4.1')$$

$$VCp_t^{RI} = \frac{RI_t - V_t^{RI in}}{RI} \quad (4.1b)$$

$$\text{Value Creation Position, VCp} = \text{net value creation} / \text{value appropriation} \quad (4.1'')$$

$$VCp_t^{RI} = \frac{NVc_t}{Va_t} \quad (4.1c)$$

The VCp that is obtained from the above equations is presented as a percentage that ranges from 0 to 100 in order to make easier comparisons across firms. A result of 0% means that all revenue adjusted/residual income derives from transfer-IN and value appropriated but *not* created. A result of 100% means that transfer-IN is null, and all revenue adjusted/residual income derives from the value creation of the business model. A VCp (revenue) of 70% would mean that 70% of the firm’s revenue is generated from business model activities associated with value creation, while 30% of the revenue is generated from value appropriated from counterparties, i.e., from extractive transfer-IN. The higher the VCp percentage score, the more sustainable the firm and its business model are viewed under the ETED’s notion of sustainable value creation. In such a case, the dependency of the firm and business model on the non-market and narrative market arenas of the political economy is likely to be lower. VCp assessments are industry dependent and must also be controlled for country, firm size, firm age, and possibly even for the cultural context (Choi and Storr, 2019, found that rent seeking is also cultural), along with other applicable variables.

The second SVC measurement, the Value Creation Rating (VCr), is more comprehensive and assesses the overall value contribution of a business model to the economy and society at large. Unlike the VCp, the VCr does consider inclusive value transfer-OUT (value created but *not* appropriated) and must take a view on the total transfer-OUT amounts that accrue to counterparties and assorted stakeholders such as suppliers, technical non-core intermediaries, customers, governments, or to society at large. While transfer-IN is assessed with reference to the financial statement, data on transfer-OUT cannot be dealt with in this way and has to be obtained from a range of distinct sources including (at times subjective) assessments that might be made without direct reference to the firm’s financials (e.g., innovation spillovers or noise pollution). The complex methodological and practical challenges of assessing the constituent datasets—the metrics—for transfer-IN/OUT are tackled in later chapters. Refer to the ‘quantifiability of value transfers’ (finance) assumption for socio-economic relations of Section 5.3.1; the

discussion in Section 6.6.1 on metrics; the examples offered in Table 6.2 on the contributions of individual SVC metrics to the sum of transfer-IN/OUT; and to Figure A5.5 on the three-stage calculation process to establish SVC measurements.

In common with the VCp, the VCr can also be determined based on ‘revenue’ and ‘profits’ as in the text version equations (4.2) and (4.2’), and ‘revenue adjusted’ and ‘residual income’ in the financial version equations (4.2a) and (4.2b). The last equation (4.2’’) depicts the understanding of VCr as an ultimate ratio: the proportion of all value creation relative to all value appropriation:

$$\begin{aligned} &\text{Value Creation Rating, VCr(revenue)} \\ &= [\text{revenue} - \text{transfer-IN}(\text{revenue}) + \text{transfer-OUT}(\text{revenue})] / \text{revenue} \end{aligned} \quad (4.2)$$

$$VCr_t^{R'} = \frac{R'_t - V_{t_t}^{R' in} + V_{t_t}^{R' out}}{R'_t} \quad (4.2a)$$

$$\begin{aligned} &\text{Value Creation Rating, VCr(profits)} \\ &= [\text{profits} - \text{transfer-IN}(\text{profits}) + \text{transfer-OUT}(\text{profits})] / \text{profits} \end{aligned} \quad (4.2')$$

$$VCr_t^{RI} = \frac{RI_t - V_{t_t}^{RI in} + V_{t_t}^{RI out}}{RI_t} \quad (4.2b)$$

$$\text{Value Creation Rating, VCr} = \text{value creation} / \text{value appropriation} \quad (4.2'')$$

$$VCr_t = \frac{Vc_t}{Va_t} \quad (4.2c)$$

The firm in a perfectly ‘balanced’ value relationship vis-à-vis all of its stakeholders (where transfer-IN equals transfer-OUT) has a VCr of 1.00. A business model relying on extractive activities will have a VCr trending below 1.00; that is, extractive transfer-IN exceeds inclusive transfer-OUT (net value extraction is positive). A firm with a sustainable value creation business model that contributes to the economy and society at large (willingly or unwittingly) with substantial inclusive transfer-OUT will have a VCr above 1.00; that is, inclusive transfer-OUT exceeds extractive transfer-IN.

Expressed as equation sets (4.1) and (4.2), the VCp and the VCr are the two fundamental SVC measurements suggested in this work. Both are designed for a variety of constituencies such as management, regulators, capital providers, or the general public and seek diverse practical applications. The measurements offer insights on the relative amount of value creation and sustainability of a firm business model, whether elite or non-elite (see the ‘The Sustainable Valuations Matrix’, depicted in Figure A5.7, which applies to any firm whether elite or non-elite). These micro-level measurements, if obtained for a majority of the leading elite business models in an economy, could also be employed to derive the meso-level, aggregate elite quality measurement of a country on a non-comparative basis. Such an approach— a ‘bottom-up’ (micro-to-meso level) rating of a national elite system based on the value creation of its leading elite business models to derive a notional ‘Elite Quality Rating’ (‘EQR’)—is discussed (in Section 6.5.2) as a complement to the established and internationally comparative Elite Quality Index (EQx, see Chapter 6).

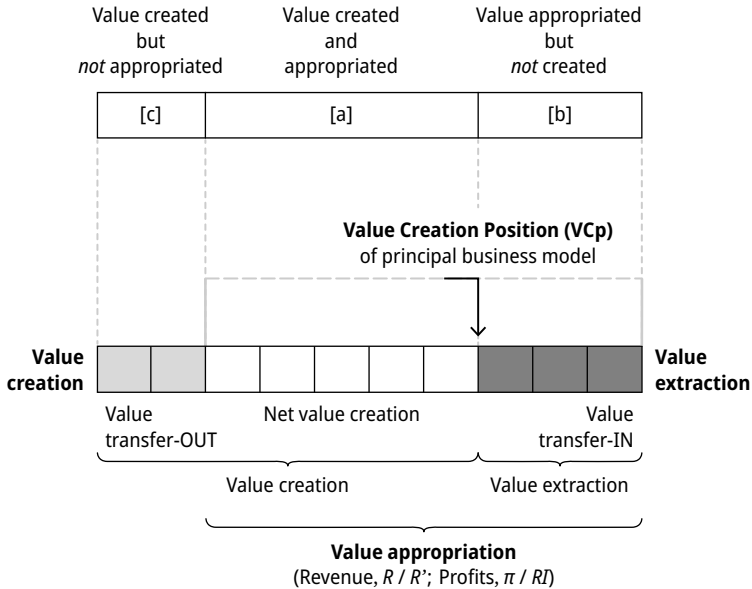
Besides being central for the ETED's theoretical advancement (as elite agency is the transmission mechanism between the micro- and macro-levels), the VCp/VCr measurements supply the basis for sustainable value creation assessments and the classification of any business model. In that capacity the measurements have potentially powerful practical applications. For elite business models, the most evident is that they can support business model transformation (see the varieties of transformational leadership in Table 7.2) by providing rigorous financial benchmarks. Policymakers and political elites interested in pursuing targeted structural reforms and institutional change will also be supported by references to the sustainable value creation measurements of elite business models in specific sectors of the economy. A further application is for the financial markets: the VCr is designed and intended to adjust equity, debt, and firm valuations (see Table 5.2) in the SVC valuation frameworks (see Figures A5.6a, A5.6b, and A5.6c). The aim of such adjustments is the allocation of capital on the basis of the degree to which a company's business model creates value or benefits from value appropriated but *not* created. Finally, knowledge elites in the media, entertainment, or academic fields can support transformational initiatives by referencing the VCr/VCp when producing evidence-based narratives.

Figure 2.11, an extension of Figure 2.10, renders a final conceptual summary on the discussion and depicts the VCp of a specific principal business model on the 'value spectrum' based on revenue (for a profits-based rendition, see Figure A5.5a). To that end, and in addition to revenue (adjusted), the visualization clearly shows the three discrete business model value categories derived from the VCA framework that are applied to the ETED—net value creation, transfer-IN and transfer-OUT.<sup>33</sup>

As already discussed, at the micro-level and in the context of strategic management, competitive advantage is not necessarily associated with value creation, but rather with the success or failure of a firm to appropriate the value it creates (Coff, 1999, p. 119). Pointedly, Brandenburger and Stuart (1996, p. 6) note: "How much value can that player be expected to capture? This is a central question in business strategy". Not being able to appropriate value created is of great interest to practitioners such as top management, consultants, investors, or potential acquirers and private equity firms. Having control of 'the extraordinary lever' as a result of lower transaction costs, higher trust levels, and, ultimately, bargaining power differentials from wins in the political economy's contest arenas, elites appropriate most of the value their models create (and potentially even more than that).<sup>34</sup> The possibility of value appropri-

<sup>33</sup> Incidentally, referencing the annotations of Figures 2.8, 2.9, and 2.11 and obviating revenue/revenue adjusted, the Value Creation Position would be expressed as  $VCp = [a]/([a]+[c])$ , and the Value Creation Rating as  $VCr = ([a]+[b])/([a]+[c])$ .

<sup>34</sup> On account of their power, elite business models will not be at the receiving end of value transfer-OUT, yet their transfer-IN is bound to vary across countries (or industries within a country) due to, for instance, the particular constraints of intra-elite competition rules (as elite business models face both constraints against extraction and incentives to contribute to specific non-elite subsets of society). A related research question, to elucidate the micro- to macro-level transmission mechanism's relevance



**Figure 2.11:** The ‘value spectrum’ (for revenue) and the business model Value Creation Position (VCp).

ated but *not* created is implicit in the VCA model, as incremental value is created and distributed depending on the negotiations between the business model’s stakeholders (Garcia-Castro & Aguilera, 2015, pp. 139–141), but rent seeking has not been systematically addressed in terms of organizational behavior, conceptually connecting the economics, strategic management, and sustainability literatures. A central question for macro-level economic growth suggested by this work is the size, direction, and effect on the incentive system of value transfer-IN activities in the economy.

Elites are defined (see the overview in Table 4.1) as operating the economy’s highest impact value creation and value extraction business models. At the same time, and while elite membership is exclusive (Olson, 1965/1971; Pareto, 1968/1991; Busino, 2000; North, Wallis, & Weingast, 2006), elite agency can be deemed to be inclusive if the revenues and residual income of elite models do not rely on excessive extractive transfer-IN activities. This is the conceptual basis for ‘high’ elite quality and the empirical work of the comparative EQx global index (Casas-Klett & Cozzi, 2020, 2021, 2022, 2023, 2024). The VCp and VCr open new transformational possibilities for elites, bring transparency to society, and contribute to debunking the elite populist fallacy (‘elites are bad’) by ascertaining the value creation contributions of specific firms and elite business models.

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to economic development, is the relationship between elite power levels (e.g., as measured by the EQx or EQr) and the favored transfer-IN practices (institutionalized as monopolies, trade barriers, subsidies, war, etc.) of a country’s elite business models.

**Table 2.4:** Equations for micro-level sustainable value creation and related SVC measurements referencing the VCA framework.

| Ref.                                     | Equation set                                                                                                                                                                                  | Description                                                                                                                                                                         |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1/9 Equations for residual income</b> |                                                                                                                                                                                               |                                                                                                                                                                                     |
| 1.1                                      | residual income = revenue adjusted – costs<br>(profits = revenue – costs)                                                                                                                     | Residual income (akin to P&L profits) is earned revenue adjusted (derived from P&L revenue and based on prices received) minus all costs paid (including debt holders' claims).     |
| 1.1a                                     | $RI_t = R'_{x,t} - C_t$                                                                                                                                                                       |                                                                                                                                                                                     |
| 1.2                                      | residual income<br>= net value creation + net value extraction                                                                                                                                | Residual income (profits) is the sum of net value created and net value extracted.                                                                                                  |
| 1.2a                                     | $RI_t = NVC_t + NVE_t$                                                                                                                                                                        |                                                                                                                                                                                     |
| 1.3                                      | residual income = net value appropriation                                                                                                                                                     | Residual income (profits) is net value appropriation.                                                                                                                               |
| 1.3a                                     | $RI_t = NVA_t$                                                                                                                                                                                |                                                                                                                                                                                     |
| <b>2/9 Equations for value creation</b>  |                                                                                                                                                                                               |                                                                                                                                                                                     |
| 2.1                                      | value creation(principal)<br>= net value creation(principal) + transfer-OUT<br>(principal)                                                                                                    | Value creation is the value from first-order productive activities of a business model (principal or stakeholder) and is described as [a] net value creation plus [c] transfer-OUT. |
| 2.1a                                     | $VC_{t,principal} = NVC_{t,principal} + Vt_{t,principal}^{out}$                                                                                                                               |                                                                                                                                                                                     |
| 2.1'                                     | value creation(stakeholder) = net value creation<br>(stakeholder) + transfer-OUT(stakeholder)                                                                                                 |                                                                                                                                                                                     |
| 2.1b                                     | $VC_{t,stakeholder} = NVC_{t,stakeholder} + Vt_{t,stakeholder}^{out}$                                                                                                                         |                                                                                                                                                                                     |
| 2.2                                      | value creation(business model) = $\Sigma$ [value<br>creation(principal), value creation(stakeholders)]                                                                                        | The value creation of the business model is cooperative and collective, i.e., the sum of the value creation of all stakeholders, including the principal.                           |
| 2.2a                                     | $VC_{t,business\ model} = \sum VC_{t,principal}, VC_{t,stakeholder}$                                                                                                                          |                                                                                                                                                                                     |
| 2.2'                                     | value creation(business model) = $\Sigma$ [value<br>creation(principal), value creation(stakeholders)]<br>+ $\Sigma$ [net value extraction(principal), net value<br>extraction(stakeholders)] | In the business model, value transfer-IN and -OUT cancel each other out, so the sum of all net value extraction in the business model is zero.                                      |
| 2.2b                                     | $VC_{t,business\ model} = \sum VC_{t,principal}, VC_{t,stakeholder}$<br>$+ \sum NVE_{t,principal}, NVE_{t,stakeholder}$                                                                       |                                                                                                                                                                                     |

Table 2.4 (continued)

| Ref.                                                       | Equation set                                                                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.3                                                        | net value creation<br>= value creation – transfer-OUT                                         | Net value creation refers to [a] ‘value created and appropriated’. It can be calculated in three ways: firstly by deducting from value creation the amount of the [b] ‘value created but <i>not</i> appropriated’, i.e., transfer-OUT; and secondly by deducting from the total value appropriation the amount of the [c] ‘value appropriated but <i>not</i> created’, i.e., transfer-IN. Thirdly, and as in VCp/VCr calculations, revenue adjusted is used for value appropriation (from which transfer-IN is also deducted). |
| 2.3a                                                       | $NVC_t = VC_t - V_{t,t}^{out}$                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2.3'                                                       | net value creation<br>= value appropriation – transfer-IN                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2.3b                                                       | $NVC_t = Va_t - V_{t,t}^{in}$                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2.3"                                                       | net value creation<br>= revenue adjusted – transfer-IN                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2.3c                                                       | $NVC_t = R'_t - V_{t,t}^{in}$                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>3/9 Equations for value appropriation and transfers</b> |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.1                                                        | value appropriation = revenue adjusted                                                        | Value appropriation is ‘revenue adjusted’, which is derived from ‘revenue’ used for statutory and accounting purposes. Value appropriation can also be understood in terms of ‘residual income’ (profits).                                                                                                                                                                                                                                                                                                                     |
| 3.1a                                                       | $Va_t = R'$                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.2'                                                       | value appropriation(principal) = net value creation(principal) + transfer-IN(principal)       | Value appropriation is conceptualized as the sum of [a] the ‘value created and appropriated’ i.e., net value creation plus the [c] ‘value appropriated but <i>not</i> created’, i.e., value transfer-IN.                                                                                                                                                                                                                                                                                                                       |
| 3.2a                                                       | $Va_{t,principal} = NVC_{t,principal} + V_{t,t,principal}^{in}$                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.2"                                                       | value appropriation(stakeholder) = net value creation stakeholder) + transfer-IN(stakeholder) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.2b                                                       | $Va_{t,stakeholder} = NVC_{t,stakeholder} + V_{t,t,stakeholder}^{in}$                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.3                                                        | net value extraction = transfer-IN – transfer-OUT                                             | Net value extraction by the business model is all the [c] ‘value appropriated but <i>not</i> created’ i.e., value transfer-IN, minus all the value lost to stakeholders, the [b] ‘value created but <i>not</i> appropriated’ i.e., value transfer-OUT.                                                                                                                                                                                                                                                                         |
| 3.3a                                                       | $NVe_t = V_{t,t}^{in} - V_{t,t}^{out}$                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

Table 2.4 (continued)

| Ref. | Equation set                                                                                                                  | Description                                                                                                                                                                                                                                                                                                                                                                               |
|------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.4  | net value appropriation<br>= net value creation + net value extraction                                                        | Net value appropriation conceptually refers to all the value the business model has been able to appropriate and retain, i.e., net value creation plus net value extraction. Equations for alternative formulations are also presented, including value appropriation minus transfer-OUT. Note that net value appropriation is equivalent to residual income (profits) in equation (1.3). |
| 3.4a | $NVa_t = NVC_t + NVE_t$                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.4' | net value appropriation<br>= [value appropriation – transfer-IN] + [transfer-IN – transfer-OUT]                               |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.4b | $NVa_t = (Va_t - V_t^{in}) + (V_t^{in} - V_t^{out})$                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.4" | net value appropriation<br>= value appropriation – transfer-OUT                                                               | Value transfer-OUT and value transfer-IN amounts offset each other across business models, as one party's value transfer-IN is another counterparty's value transfer-OUT.                                                                                                                                                                                                                 |
| 3.4c | $NVa_t = Va_t - V_t^{out}$                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.5  | transfer-IN(principal)<br>= transfer-OUT(stakeholder)                                                                         |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.5a | $V_{t,principal}^{in} = V_{t,stakeholder}^{out}$                                                                              |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.5' | transfer-IN(stakeholder)<br>= transfer-OUT(principal)                                                                         | A principal's total amount of transfer-IN is established as the sum of transfer-IN from all its stakeholders, which corresponds to the sum of the transfer-OUT endured by all the principal-related stakeholders.                                                                                                                                                                         |
| 3.5b | $V_{t,stakeholder}^{in} = V_{t,principal}^{out}$                                                                              |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.6  | transfer-IN(principal)<br>= sum(principal transfer-IN from n stakeholders)<br>= sum(n stakeholders transfer-OUT to principal) |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.6a | $V_{t,principal}^{in} = \sum_n V_{t,principal \text{ of stakeholder}_n}^{in} = \sum_n V_{t,stakeholder_n}^{out}$              |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.7  | transfer-IN(principal) = sum(transfer-IN metrics)                                                                             | Transfer-IN for a firm is the sum of all transfer-IN amounts derived from the metrics used to measure its sustainable first-order value creation.                                                                                                                                                                                                                                         |
| 3.7a | $V_{t,principal}^{in} = \sum_n V_{t,metrics_n}^{in}$                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.8  | transfer-OUT(principal)<br>= sum(transfer-OUT metrics)                                                                        | Transfer-OUT for a firm is the sum of all transfer-OUT amounts derived from the metrics used to measure its sustainable – but non-appropriated – value creation (i.e., value transfers benefiting the counterparty).                                                                                                                                                                      |
| 3.8a | $V_{t,principal}^{out} = \sum_n V_{t,metrics_n}^{out}$                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |

Table 2.4 (continued)

| Ref.                                                                   | Equation set                                                                                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>4/9 Equations for sustainable value creation (SVC) measurements</b> |                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.1                                                                    | Value Creation Position, VCp(revenue)<br>= [revenue – transfer-IN(revenue)] / revenue                       | The VCp is a measurement of the sustainability of a firm. It requires the referencing of revenue/profits and establishing the second-order [c] ‘value appropriated but <i>not</i> created’ transfers i.e., ‘value transfer-IN’ that benefits the business model. The VCp is conceptualized on a ‘value spectrum’ with one segment for [a] ‘value created and appropriated’ i.e., ‘net value creation’, and the opposing one for [c] ‘value appropriated but <i>not</i> created’, i.e., ‘transfer-IN’. The latter is quantified through metrics. The VCp score is a percentage that represents [a] ‘value created and appropriated’, i.e., ‘net value creation’, over all ‘value appropriation’ [a+c], i.e., revenue/profits (revenue adjusted/residual income).                                    |
| 4.1a                                                                   | $VCp_t^{R'} = \frac{R'_t - Vt_t^{RI\ in}}{R'_t}$                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.1'                                                                   | Value Creation Position, VCp(profits)<br>= [profits – transfer-IN(profits)] / profits                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.1b                                                                   | $VCp_t^{RI} = \frac{RI_t - Vt_t^{RI\ in}}{RI_t}$                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.1"                                                                   | VCp = net value creation / value appropriation                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.1c                                                                   | $VCp_t^R = \frac{NVc_t}{Va_t}$                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.2                                                                    | Value Creation Rating, VCr(revenue)<br>= [revenue – transfer-IN(revenue) + transfer-OUT(revenue)] / revenue | The VCr is a comprehensive measurement of the sustainability of a firm. It requires the referencing of revenue/profits and establishing second-order [c] ‘value appropriated but <i>not</i> created’ transfers i.e., ‘transfer-IN’, as well as [b] first-order ‘value created but <i>not</i> appropriated’ transfers i.e., ‘transfer-OUT’. Both are quantified through metrics. The VCr is provided as a score with two decimal points that describes the proportion of all ‘value creation’ [a+b] in relation to all ‘value appropriation’ [a+c] i.e., revenue/profits (revenue adjusted/residual income). The VCr operationalizes the relationship between a firm and society by assessing all second-order value transfers, both the extractive (transfer-IN) and the inclusive (transfer-OUT). |
| 4.2a                                                                   | $VCr_t^{R'} = \frac{R'_t - Vt_t^{RI\ in} + Vt_t^{RI\ out}}{R'_t}$                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.2'                                                                   | Value Creation Rating, VCr(profits)<br>= [profits – transfer-IN(profits) + transfer-OUT(profits)] / profits |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.2b                                                                   | $VCr_t^{RI} = \frac{RI_t - Vt_t^{RI\ in} + Vt_t^{RI\ out}}{RI_t}$                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.2"                                                                   | VCr = value creation / value appropriation                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4.2c                                                                   | $VCr_t = \frac{Vc_t}{Va_t}$                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

The main formulas related to the calculation of sustainable value creation (SVC) measurements anchored in the VCA framework are summarized in Table 2.4. All have been reviewed in this chapter. A final series of equations (5/9 to 9/9) for the valuation of debt, equity, and the firm—based on SVC measurements—are addressed at a later stage (Section 5.3.1, see also Figures 5.4 and A5.6, and Tables 5.2, 5.3 and A3.3 for a detailed overview of the valuation frameworks).

Now that value creation and value extraction have been operationalized, the relationship of elite agency to bargaining power in value transfers is conceptually revisited to interpret transfer-IN/OUT in the VCp/VCr measurements. The transfer-OUT from

agents *with* power (powerful elites parting with value despite having power) is assumed to be an inclusive transfer; transfer-OUT from agents *without* power (powerless non-elites parting with value) is assumed to be an extractive transfer.

When the beneficiary of value appropriated but *not* created has low bargaining power and the value transfer-OUT comes from a party with higher bargaining power (a principal, an elite), it is deemed to be inclusive, an uncoerced accepted contribution, a positive externality, and a public good (such as innovation spillovers, circular production processes, fair trade prices). The beneficiaries are political economy agents (non-elites) who would not otherwise have the means and leverage to demand and appropriate such value.

On the other hand, when the beneficiary of value appropriated but *not* created has high bargaining power (usually a principal, an elite) and the value transfer-OUT comes from a party with lower bargaining power, it is deemed to be a coerced extraction, an involuntary tax, a negative externality, and a public bad (again, monopoly rents, depleted soil, inflation). The beneficiaries are political economy agents (elites) with the means and leverage to demand and appropriate such value.

Section 6.6.1 discusses the data building blocks that describe transfer-OUT—the metrics that establish the VCr. These do not provide information about whether the transfer-OUT is by high/low power agents. Transfer-OUT is simply classified as value creation. As such, value created but *not* appropriated is accounted for as a first-order productive activity, whether it comes from elite or non-elite business models. Transfer-OUT is value creation by both the conscientious firm sequestering more carbon than it emits and by the exploited worker at the short end of monopsony power. Transfer-IN is, on the other hand, always accounted for as a second-order transfer activity. As pointed out by equation (3.5), total transfer-OUT in an economy equals total transfer-IN if no value leakage occurs between the counterparties when value appropriated but *not* created is secured (though deadweight losses, social losses, and resource misallocations—see Harberger, 1964; Tullock, 1967; Tollison 1982—are actually severe). Note that one component of the transfer-IN of ‘value appropriated but *not* created’ is ‘cost created but *not* borne’, i.e., transfer-COST. The ‘extractive’ transfer-COST has a ‘destructive’ shadow counterpart (that is not part of transfer-IN): ‘*negative* value created but *not* appropriated’. Both types of transfer-COST are expounded on in subsequent chapters, including a case study on the opioid crisis in Section 8.2.1 (the ‘extractive’ and ‘destructive’ transfer-COSTS are also depicted in the ‘value spectrum’ of Figure A5.5a and in The Value Creation and Appropriation Matrix of Figure 6.7).

Moving forward, a recurring rationale informs this inquiry. Economies that see ‘the extraordinary lever’ and associated bargaining power differentials invested in business models characterized by extractive value transfer-IN and rent-seeking activities will witness suboptimal resource allocation, skewed incentives, and broken information systems, along with friction, higher transaction costs, and a *de facto* tax levied on the majority. In such societies, a substantial chunk of the total value created is transferred from one subset of society to another via mechanisms activated

with ‘political economy know-how’ (in the non-market and narrative market arenas). On the other hand, there are inclusive countries where elites do not immediately appropriate the full value their applied coordination capacity allows. Such elites are less reliant on extractive transfer-IN from their stakeholders, are less distracted by political economy considerations, and have a sharper focus on the market arena where ‘knowledge’ generates the residual income and the wealth stock required for their status. A *leitmotif* of this inquiry is that when non-extractive business models prevail in society, the majority of the economy’s stakeholders, both high and low, unencumbered, free, and able to keep the value they produce, are posited to produce more. High value creation elite business models are in themselves the strongest incentive system for productive work and inclusive prosperity. The two main firm-level sustainable value creation measurements of the ETED—the VC<sub>r</sub> and VC<sub>p</sub>—are meant to assess the sustainability of elite business models and, when aggregated, the sustainability of the political economies in which they operate.

Figure 2.12 closes this chapter with a summary of the two measurements and their two variants—firm revenue and profits. Note that throughout this work revenue ( $R$ ) and profits ( $\pi$ ) are also described as residual income (RI) and revenue adjusted ( $R'$ ). The two nomenclatures are meant to respectively reflect the P&L statement perspective (revenue/profits) and the value chain (VCA) perspective (revenue adjusted/residual income). For instance, Figure 2.11 depicts the ‘value spectrum’ for a business model based on revenue, while Figure A5.5a does so for profits. While conceptually very close to being interchangeable, the two concepts are technically (in accounting terms) not equivalent. The two perspectives join when transfer-IN/OUT—the value chain perspective—is matched against revenue/profits—the financial statement perspective—in the operationalization of sustainable value creation (SVC) measurements (VC<sub>p</sub>/VC<sub>r</sub>). When addressing economic development—in disquisitions about institutional change, power, or elite quality—this work favors the term ‘residual income’ over ‘profits’.

|                                                | <b>Revenue</b><br>(Revenue adjusted, R')*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Profits</b><br>(Residual income, RI)*                                                                                                                                                                                                     |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                | (1)<br><b>Value Creation Position</b><br><b>VCp(revenue)</b><br><br>= [revenue – transfer-IN(revenue)] / revenue<br><br>Equation (4.1a)<br>$VCp_t^{R'} = \frac{R'_t - Vt_t^{R' in}}{R'_t}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | (2)<br><b>Value Creation Position</b><br><b>VCp(profits)</b><br><br>= [profits – value transfer-IN(profits)] / profits<br><br>Equation (4.1b)<br>$VCp_t^{RI} = \frac{RI_t - Vt_t^{RI in}}{RI_t}$                                             |
| <b>Transfer-IN</b>                             | <ul style="list-style-type: none"> <li>- VCP calculations require: value transfer-IN; revenue or profits.</li> <li>- Transfer-IN amount is calculated from component metrics, the conceptually indivisible, discrete data sources that represent firm-level quantifiable value and risk transfers.</li> <li>- Graphical representation of the VCP measurement referencing relevant concepts and figures:</li> </ul> <div style="text-align: center;"> <p>Net value creation      Value transfer-IN</p> <p>÷      Value appropriation (revenue; profits)      = 62.5%</p> </div> <ul style="list-style-type: none"> <li>- The VCP measurement is provided as a percentage (with one decimal point).</li> <li>- A score of 100% indicates that a firm's revenue/profits are entirely attributable to first-order value creation; a score of 0% indicates that these are entirely attributable to second-order extractive value transfers (transfer-IN).</li> </ul>                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                              |
| <b>Transfer-IN</b><br>&<br><b>Transfer-OUT</b> | (3)<br><b>Value Creation Rating</b><br><b>VCr(revenue)</b><br><br>= [revenue – value transfer-IN(revenue) + value transfer-OUT(revenue)] / revenue<br><br>Equation (4.2a)<br>$VCr_t^{R'} = \frac{R'_t - Vt_t^{R' in} + Vt_t^{R' out}}{R'_t}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | (4)<br><b>Value Creation Rating</b><br><b>VCr(profits)</b><br><br>= [profits – value transfer-IN(profits) + value transfer-OUT(profits)] / profits<br><br>Equation (4.2b)<br>$VCr_t^{RI} = \frac{RI_t - Vt_t^{RI in} + Vt_t^{RI out}}{RI_t}$ |
|                                                | <ul style="list-style-type: none"> <li>- VCr calculations require: value transfer-IN; value transfer-OUT; revenue or profits.</li> <li>- Transfer-IN and transfer-OUT amounts are calculated from component metrics, the conceptually indivisible, discrete data sources that represent firm-level quantifiable value and risk transfers.</li> <li>- Graphical representation of the VCr measurement referencing relevant concepts and figures:</li> </ul> <div style="text-align: center;"> <p>Net value creation      Value transfer-OUT      Value transfer-IN</p> <p>÷      Value appropriation (revenue; profits)      = 1.25</p> </div> <ul style="list-style-type: none"> <li>- The VCr is provided as a score, its first digit (mostly zero or one) is followed by two decimal points.</li> <li>- A score of 1.00 indicates that a firm's overall value creation and value appropriation (revenue/profits) are equal and in balance; a score over/below 1.00 indicates that a firm has a net positive/negative relationship with its stakeholders and society at large, with inclusive second-order value transfers (transfer-OUT) higher/lower than extractive second-order value transfers (transfer-IN).</li> </ul> |                                                                                                                                                                                                                                              |

\* Note: In the text notation of the equations the financial statement perspective is used for 'revenue' and 'profits'; in the mathematical notation of the equations the value creation perspective is used, respectively 'revenue adjusted' (R') and 'residual income' (RI).

**Figure 2.12:** Sustainable value creation measurements: An overview of the VCP and the VCr.

## Summary of Chapter 2

### Towards a value creation and appropriation logic for elite business models

Chapter 2 establishes sustainable value creation in the overall architecture of this work as the micro-level foundation for the macro-level economic theorizing of subsequent chapters. The elite business model is made the locus of elite agency in seven related propositions (Propositions 5–11), developed over three sections. The chapter begins with Section 2.1 on the behavioral logic of elites.

Proposition 5, ‘Elite behavior maximizes utility and is potentially sustainable’ (2.1.1), uses neoclassical assumptions of rationality for elite behavior to posit an income maximization ‘elite utility function’ driven by the optimization of short-term income flows and long-term wealth stocks. This position situates the sustainability perspective of this book. Elite agency, conceived on RCT tenets, is consistent with Olson’s (1993, 2000) stationary bandit, for whom the pursuit of wealth is best served by a long horizon. Proposition 6, ‘Elite identity is driven by residual income’ (2.1.2), tests and reinforces the utilitarian perspective by claiming that elite identity, while evolutionary and often obfuscated by the meta-level of narratives, is always about status-enabling residual income. As the utility function requires that elites appropriate value, it introduces two of the most critical elements of this work: extractive ‘value transfer-IN’ (‘value appropriated but *not* created’), and its counterpart, inclusive ‘value transfer-OUT’ (‘value created but *not* appropriated’).

The logic of the elite business model informs the three propositions in Section 2.2. First, Proposition 7, ‘The elite business model is the locus of elite agency’ (2.2.1), examines the mechanism of residual income maximization that is central to elite agency. Elite business model leadership is posited to support this objective of elite agency by joining and converting the different power types into revenue and profits (see Figure 2.1). Then, by employing the bargaining power concept as an analytical cornerstone, Proposition 8, ‘The elite business model is characterized by principal-stakeholder bargaining power differentials required for value appropriation’ (2.2.2), begins with a review of the wide range of ideas on value from Smith (1776/1904) to Marx (1867/1959b) and concludes by suggesting that value is everything that humans deem worth appropriating, while its creation is a collective process by principals and stakeholders. Consistent with the previous notion of ‘the extraordinary lever’, the business model is then characterized vis-à-vis its stakeholders by the bargaining power differentials required for value appropriation. The sources of power enabling the value appropriation of business models are ‘knowledge’ and ‘political economy know-how’ (see Figure 2.3), and their respective proportions not only typify a given business model but also impact economic development. This understanding leads to ‘the Amazon dilemma’ of the political economy, which consists of the hypothesized ‘elite vs non-elite knowledge gap’ and the ‘elite power vs value creation gap’. In Proposition 9, ‘Value creation-appropriation (VCA) is proposed as the analytical framework best suited to understand elite business models’ division of value

strategies' (2.2.3). The strategic management perspective and principal-stakeholder prices and costs (within the opportunity cost to willingness to pay corridor) in the vertical chain of value (see Figure 2.6) become a primary analytical device of this work. Various sets of equations are then presented as a preliminary step to operationalize sustainable value creation. Both Propositions 8 and 9 lay the foundations for the subsequent links made between prices, power, profits, leadership, and ethics (see Sections 7.2, 8.2, and 8.3).

Section 2.3 closes the chapter with two propositions on value creation and value transfers as extraction. Proposition 10, 'Sustainable value creation results from the proportion of first-order productive activities (value creation) relative to second-order transfer activities (value extraction)' (2.3.1), provides a twist as it not only identifies and distinguishes extractive second-order value transfers from first-order productive value creation, but also posits that the former might be necessary at certain critical stages of economic development for value creation to reach scale. The insights are captured by the 'alternating value extraction and creation' conjecture and the somewhat problematic 'extractive push' dilemma that points to value transfers as a precondition for development. Lastly, Proposition 11, 'All elite business models have a measurable value creation position on a 'value spectrum'' (2.3.2), delves into the various concepts developed through the VCA framework—such as 'net value creation', 'value transfer-IN' or 'value transfer-OUT'—configured into equations (see Table 2.4), an important step for the operationalization of the ETED. The Value Creation Position (VCp) and Value Creation Rating (VCr)—equations (4.1) and (4.2) respectively—are presented as two ways of measuring the sustainability of a business model, while the latter will also become the critical input for the SVC adjustments to equity, debt, and firm valuations (see Table 5.2 for an overview of the valuation frameworks and Figure 5.3 for the relationship between SVC measurements and SVC valuation frameworks).

The view espoused is that while the subject of business models falls under the purview of strategic management, the degree of inclusive value creation and the extractive value transfers of micro-level business models transition into and impact the highest levels of the political economy system and hence society at large. Sustainable value creation aggregates, such as elite quality, are advanced as being germane to economic development and growth.