# DISCOVERING RELATIONSHIPS BETWEEN MATERIAL CONSUMPTION AND SUBJECTIVE WELL-BEING

by

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A dissertation submitted to the faculty of The University of North Carolina at Charlotte in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Geography and Urban Regional Analysis

Charlotte

2015

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#### **ABSTRACT**

KAILAS VENKITASUBRAMANIAN. Discovering relationships between material consumption and subjective well-being. (Under the direction of DR. JEAN-CLAUDE THILL)

This dissertation theoretically and empirically investigates how material consumption affects human happiness and life satisfaction in the urbanized societies around the world. In recent literature, happiness and life satisfaction is encapsulated in a term – Subjective Wellbeing (SWB) – self-reported measure of overall happiness and satisfaction in the life of an individual. I use this subjective measurement to study people's level of well-being. I develop a theoretical framework that explains how personal values and attitudes towards the political economy are indirectly motivated by institutionalized consumption ideals and empirically examine the effects of these attitudes on individual SWB. From an institutional perspective, I argue that the contemporary neoliberal socio-political regime which dominates national and transnational economic policies influences individual attitudes towards consumption outcomes as well as its drivers. The primacy of consumption and materialism, as enshrined in the ideals of this regime, affects the modalities of individual aspiration, adaptation and social comparison psychological mechanisms associated with changes in SWB. And the most visible spatial manifestation of human-environment interaction under this regime are urban areas and the process of urbanization.

Within this premise, I hypothesize that attitudes congruent with the ideals of the institutional environment harmonizes an individual's social interactions, thus facilitating greater SWB. I test this hypothesis using data from 47 countries on the World Values Survey with an empirical

model that estimates the attitudinal effects on SWB and its interactions with material conditions – at both individual and societal levels. The results indicate that individuals whose values and attitudes align with that of institutional ideals experience higher levels of SWB. I also find that gains or losses of SWB due to differences in attitudes are not even across economic classes. Following this analysis, I extend the framework to identify key dimensions of aggregate consumption outcomes and analyze how they explain the differences in wellbeing across urban areas. I model the average SWB of around 100 urban areas conditional to the various macroeconomic aspects of consumption. Consistent with the previous literature, I find that consumption power has a positive but diminishing effect on SWB. But I also find that consumption volatility and optimism about urbanization have strong and steady effects on urban areas' life satisfaction. As part of this study, I also advance a flexible modeling approach that enables better quantification and comparison of these changes across the entire distribution of SWB across urban areas. Overall, the dissertation makes inroads in establishing institutional analysis as a valuable dimension through which human happiness and life satisfaction could be understood.

#### **ACKNOWLEDGMENTS**

This dissertation is a product of my continually evolving reflections about our society and the world. None of this work would have been possible without those people who supported and inspired me throughout my learning process which involved quite a few crests and troughs. I would like to thank every one of my friends who shared their intellect through numerous discussions and debates on my ideas. I am also grateful to the warm and collegial environment of my department which supported me financially and intellectually through my PhD program. But most importantly, I am deeply grateful to my academic advisor and dissertation Chair, Dr. Jean-Claude Thill for his unwavering support, inspiration and warmth at both personal and professional levels. He provided me with the time and intellectual freedom to pursue ideas that did not fit within the conventions of my academic discipline, which was critically important to the success of my research. Over these years. I have learned a lot from his excellent academic sensibilities and mentorship. I also would like to thank him for his promptness in reviewing my documents in spite of his busy schedules and my tight deadlines. I am also thankful to Dr. Harrison Campbell, my dissertation committee member, for his warm support and encouragement to my research through several deep conversations surrounding my topic. I would also like to thank Dr. Qingfang Wang, my dissertation committee member, for her support and inspiration in shaping the research.

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#### **CHAPTER 1: INTRODUCTION**

This dissertation theoretically and empirically examines how material consumption affects happiness and life satisfaction in urban areas. I develop a theoretical framework that explains how personal values & attitudes towards the political economy are indirectly motivated by institutionalized consumption ideals and empirically investigate the effects of these attitudes on individual well-being. Using this framework, I also identify the key dimensions of aggregate consumption outcomes and analyze how they explain the differences in well-being across urban areas. In modern literature, happiness and life satisfaction is encapsulated in a term – Subjective Well-being (SWB) – self-reported measure of overall happiness and satisfaction in the life of an individual. I use this subjective measurement to study people's level of well-being. To introduce this topic, let me recall a personal anecdote that brings out my motivation for writing this dissertation.

Several months back, I was having a conversation with some friends about happiness and its determinants. It was at a time when I had just become aware of some startling results of the research about happiness and life satisfaction conducted in the last 30 years. In the conversation, I asked, "What do you think makes people happy?" I got very diverse answers – some said family and friends, some said good health, some said wealth, some said travel, some said sex, some gave more impulsive answers like alcohol

or steak. Then I said, "Research shows that money doesn't buy happiness. The correlation between wealth and life satisfaction does not exist after a certain threshold of wealth (see Welzel and Inglehart, 2010)". Again, my friends concurred with this idea. They already seemed to have an intuitive knowledge about this stylized fact emerging from modern happiness research. They said, "Satisfaction does not come from having a lot of money, but from pursuing and realizing your desires, having stable relationships, respect and self-esteem in the society, a life with meaning and purpose, etc." While citing these reasons, they were all undermining the importance of money as a source of happiness. This was particularly insightful as, as my later research would show, these attributes are important correlates of well-being (see Veenhoven 1991). I too agreed with these non-materialist perspectives towards well-being. However, while we unanimously undermined the importance of wealth to well-being, I could not help but notice a contradiction.

Many of us extol non-wealth, virtuous ideas about achieving life satisfaction yet our predominant function in society seems to be wealth generation – directly or indirectly. So, I asked them, "If we think life satisfaction comes from things conceptually unconnected to wealth, why do we have these stressful jobs and lives in cities? Why do we relentlessly pursue income raises, promotions, better-paying jobs, investment in stocks and other opportunities to raise our wealth?" The answers I got for these questions now had a tone of defensiveness, "How do we survive otherwise?, "Money is important for pursuing our desires", "Survival is not related to satisfaction and happiness, it is a basic necessity", "I love my job, the fact that I make a lot of money is only an incidental side-effect of my skills and aspiration", "Society makes us do this", etc. I continued, "if survival is a necessity and is unconnected with today's happiness and satisfaction, why don't we stop

generating wealth once we have met the basic survival requirements so that we can focus our energy to pursue other reliable ways of happiness you described earlier?" For this question, I got less sure-footed responses. "Define basic", "As technology grows, our basic needs change – so more wealth is necessary to meet the needs", "our expectations change all the time", "we are always unsatisfied, so we continue our pursuit due to greed", "there is nothing wrong in pursuing wealth – it reduces poverty", and so on.

This conversation left me with several important insights as well as questions. First, many of these perceptions about factors of happiness as well as the mechanisms of pursuing wealth is in line with extant literature. If I distill the literature for psychological mechanisms guiding changes in happiness and income, I find that these perceptions are codified as theoretical constructs in light of significant empirical evidence. For example, Easterlin (1974) shows that the proportion of people satisfied/happy in the United States has remained the same over the last 50 years despite the country's GDP tripling over the same time period.

This seminal work is today known as the Easterlin paradox (Figure 1). Also, the related idea that expectations change temporally, as voiced by my friends, is today known in the literature as satisfaction treadmill (Brickman and Campbell, 1971) – the mechanism that tends to self-correct raised or lowered life satisfaction levels to a set-point therefore giving us a troubling implication that happiness and satisfaction cannot be raised in real terms. Or the related fact that basic needs and the definition of 'basic' change with time could be described by the theory of aspiration (Duesenberry 1951).

Notwithstanding these curiosities, I focused on the part where the importance of wealth is undermined in the context of overall happiness, yet most of us seem to justify

reasons for investing a major part of time and effort in increasing wealth. I found myself asking these questions. Why do people have a conflict between their values and their activities? What factors drive this disconnect?

Do I get these conflicting responses because most of us belong to the middle class of a developed economy and possess a certain bias against the 'greedy' pursuit of wealth in capitalist societies as depicted in some media? Does our moral underpinnings hesitate to give enough credit to wealth as a stable source of happiness? Will I get a different set of responses if I interviewed some billionaires? What would a hungry, homeless man say about the set of non-materialistic ideas floated by my friends about achieving happiness? Or, is it simply because we are just helpless and are unable to revert the systemic rigidities of wealth accumulation even though we can individually see wealth as little important to happiness and life satisfaction?

In fact, Loewenstein and Schkade (1999) note a similar contradiction based on Loewenstein's (1996) study where people were asked to rank relative importance of various aspects of life for happiness and satisfaction. Consistent with my anecdote, income ranks less important than other factors such as family, friends, and satisfying job. So they observe, "The lack of importance that subjects place on income relative to other categories seems roughly consistent with findings from the literature on SWB that downplay the importance of income (see, for example, Diener et al. 1993; Easterlin 1995; Lykken and Telligen 1996). On the other hand, the downplaying of income as a source of happiness in these rankings and ratings seems somewhat inconsistent with the effort that people put into securing a high income relative to other goals."



FIGURE 1: Easterlin paradox (Source: Frey and Stutzer 2002)

These issues and questions drop into the middle of the debate concerning the relationship between income and happiness, and the answers are unsatisfactory in the current literature. On the one hand, we have economics which, with the intent of studying resource allocation, deifies the notion of income and wealth for individual and national betterment. On the other side, we have evidence of dwindling correlation between income and happiness, and psychologists (Diener 1999, Veenhoven 1995, Ahuvia 2008) contending that income may not provide sustained increase in life satisfaction. The social reality however is more complex – many individuals are inspired by non-materialist ideals (as implied by the writings in positive psychology) yet predominantly continue to function based on the materialist doctrine of modern economic theories. This interesting juxtaposition of established conjectures about wealth, new theories of happiness and the social reality I observe thus motivates my inquiry.

More questions ensued in my mind after this preliminary research. What sort of world are we living in? How are our values and beliefs about wealth, income and well-being shaped? Are there larger forces that shape them? Are we reflections of a social system consisting of institutions that educate us on how to perceive these aspects of life? If yes, how do we define the socio-economic regime that guides us towards this version of well-being?

Empirical researchers distinguish between economic and non-economic factors in evaluating the attributes of well-being. This is the basis for debating and analyzing whether income is more important than family for happiness, or inflation is less important, and so on. In this dissertation, I argue that this approach has serious conceptual weaknesses in the context of modern urban societies. The distinction between economic factors and the noneconomic factors is blurry and complicated in a world where economic institutions increasingly dictate social policies and behavior. I see these institutions as the pillars of a monolithic yet seemingly dispersed neoliberal socio-cultural regime that has established itself in all corners of the globe in the last three or four decades. In the context of a largely unbridled economic globalization process driven by this regime, cities and economic institutions are synergistic and synonymous forces that provide the objective conditions for realizing human happiness and satisfaction. In the face of such forces, humans have become largely reactionary micro-organisms to entrenched institutional principles resting on a visibly materialistic philosophy. These principles seek to commodify all aspects of life without discretion and advocate aspirations for a never-ending increase of wealth. Neglect about the role of these institutions and the key environmental variables that interact with human aspirations has been a blind-spot in the extant literature of urban happiness and life-satisfaction.

Literature identifies materialism as a key dimension to study happiness. But apart from brief discussions about the interconnectedness of materialism with exogenous macro and micro-economic variables, theoretical understanding about materialistic societies and life satisfaction is under-developed. In order to make improvements in this area, I seek to develop a broad conceptual and empirical framework of material happiness using modern urban societies' current primary goal – consumption. The key argument underlying this approach is that, no matter how nuanced people's or communities' value systems are or how diverse political and institutional goals are, or how unorthodox or post-modern individual aspirations are towards happiness, modern urban societies are pervaded by an overarching consumption imperative. Powerful institutions of economic liberalization spearhead the building of this consumption imperative and while doing so, other noneconomic individual and institutional parameters are overtly or covertly relegated to a secondary, sometimes irrelevant status. The choices of population to realize happiness and life satisfaction in their lives is constrained by these institutional outcomes and directives that manifest as the general consumption environment in both cities and elsewhere.

As evident in the extant literature, correlates of happiness and life satisfaction are diverse and many of them are not intuitively relatable to consumption. However, the diversity of these correlates may be moderated and mediated by the overarching factors of consumption – these factors may be undetectable unless we identify them as functioning under a singular economic and cultural apparatus. This invisibility may well be reason why my friends in the above conversation carry a lot of non-materialistic beliefs about happiness

and life satisfaction yet continue to practice ways that produces consumption-enabled outcomes of well-being. To advance these arguments further, I develop a theoretical model in which institutions working within a neoliberal regime act as sources of individual values, beliefs and attitudes towards their consumption environment. Institutions are formal and informal structures that define and influence the evolving social and political order of the environment. Governments, financial institutions, and business organizations and networks form a powerful triad under the neoliberal regime, all of which are governed by consumption driven ideals directly or indirectly. Social organization and relationships then significantly depend on the directions given by this institutional superstructure. Under these circumstances, I argue that individuals whose attitudes are more congruent with institutional aspirations are better positioned to gain greater well-being. I test this hypothesis empirically by identifying and measuring various dimensions of neoliberal social attitudes and their effects on individual level well-being.

Following this institutions-oriented analysis of individual well-being, I extend this framework to develop generalized dimensions of macro-consumption outcomes that affect collective well-being. These consumption outcomes, or indicators as they are called, shape the narrative of societies about their present health and future outlook. In previous literature, the disproportionate focus on income as a singular indicator by which economic health is measured and related to well-being limits our ability to capture the complexity surrounding how societies perceive their collective pursuit to possess and consume resources. The larger force of cultural materialism that dominates today's societies is fueled not only by consumption power but also its stability and more subtle cues about the ongoing environmental dynamics that may bring greater optimism about future consumption. I

contend that urban areas around the world are configured to act, react and comply with these indicators in a more homogenized manner than other geographic spaces. As informal spatial institutions, urban spaces act as nodes of resource flows, catchment of wealth generators, and disproportionate beneficiaries of global trade. Urban societies hence are primed and habituated to a worldview where economic prosperity and happiness are inextricably linked. Therefore, they also form appropriate units of analysis where these dimensions of consumptions may be analyzed in relation to the outcomes of general happiness and satisfaction. So, in addition to explaining the nature of individual SWB, I empirically explain differences in life satisfaction between urban areas around the world by measuring these facets of consumption and modeling their relationships.

#### 1.1 Contributions

The contributions of this dissertation are the following.

First, I shift the focus of the extant literature on subjective well-being to urban areas, both as a new scale of analyses for comparative macro-level studies as well as an important construct that relates strongly with the discussion of consumption-driven happiness. Current trends point to a mostly urbanized future for the humankind – cities and its characteristics incite questions about livability and sustainability in the face of globalizing political and economic forces. In this context, articulating relationships between the various dimensions of material consumption is both academically and practically relevant. The scarce literature that deals with cities and well-being lacks theoretical direction. To this end, I develop a novel theoretical framework drawing from macro-scale institutional theories as well as micro-mechanisms that describe the

psychology of happiness to explain the pathways of how consumption affects happiness and life satisfaction.

Second, to my knowledge, there is no literature on life satisfaction from a critical institutional perspective. While many researchers direct their criticism on neoclassical economic theory alone, I conceive my theoretical framework with neoliberal institutions which practice, advocate and enforce this theory and educate people about it. Departing from mainstream SWB literature, I undertake an explicitly normative approach by conceptualizing contemporary society as a sub-space that functions under an all-encompassing neoliberal regime that operates globally. This approach allows greater clarity in the redefinition and interpretation of social attitudes as they relate to well-being, and therefore contributes to the critical literature that deals with economy and SWB. I build a model of well-being juxtaposing values and attitudes of individuals with the material conditions.

Third, I recognize the poor empirical focus on the phenomenon of consumption in the extant literature. In order to link institutions into the discussion of wealth and SWB, we need institutional outcomes that act as popular indicators of economic welfare across the world. Therefore, I expand the conceptualization of consumption in this study. I measure and operationalize the various facets of consumption as they affect the well-being experienced by people in cities. Current research mostly focuses on the singular notion of 'income' as an indicator of wealth and consumption. Measurement of income has been conceptually deficient as well as empirically misleading when analyzing the relationship of consumption with life-satisfaction. I develop an aggregate model of happiness and life satisfaction to describe how the various dimensions of consumption explain the differences

in well-being across cities. The operationalization of inter-related environmental attributes of consumption imposed by socio-economic political institutions and modeling their individual impacts on well-being in cities within a single framework is another original contribution of this dissertation. Syndicating the world values surveys and European value surveys, I extract happiness and life-satisfaction data for about 100 urban areas around the world and statistically estimate the relationship between consumption and SWB.

Fourth, I revisit the empirical relationship between wealth and life satisfaction and use income within the consumption framework to test if the effect of income on life satisfaction reduces at higher levels of well-being. Apart from visual representations of bivariate relationships showing a logarithmic curve between income and SWB among nations (Inglehart 1997), cross-sectional analyses hardly tests/confirms this hypothesis within a multivariate specification. Some researchers interpret the reducing sensitivity of income to changed expectations and post-materialistic tendencies. I analyze this relationship again to ascertain if the relationship holds true when cities are compared instead of nations. Previous comparative analyses truncate the sample of nations to examine the coefficient of income on SWB – this violates the distributional assumptions and weakens the interpretation that income is less correlated in developed countries than developing countries. I advance a new method within the SWB study domain to conduct analytical comparisons without truncating the complete distribution of SWB values.

## 1.2 Research Questions

To summarize, these are the research questions that I seek to answer. The first three are about well-being at the individual-level. The last two are examined at the level of urban areas.

- 1. What is the impact of neoliberal attitudinal dimensions on individual well-being?
  Does greater attitudinal congruence with the consumption ideals of the neoliberal environment bring greater well-being to people?
- 2. How does the effect of neoliberal attitudes on well-being vary between urban and rural areas, developed and developing countries and other geo-economic regions?
  Do urban areas show greater sensitivity to neoliberal attitudes?
- 3. How do these attitudes interact with personal values and socio-economic circumstances of the individual?
- 4. What are the important macro-dimensions of urban consumption as set by economic institutions?
- 5. How do the dimensions of consumption affect SWB across cities? Are these dimensions individually important in explaining differences in SWB among cities? Does SWB show a lesser sensitivity to income in cities with higher levels of well-being/income?

#### 1.3 Outline of the Dissertation

Chapter 2 introduces the idea of subjective well-being and the current academic discourse about wealth and SWB, outlining gaps in the literature and the questions emerging from them.

Chapter 3 presents the theoretical framework. Part 1 explains the definitions and characterization of neoliberal attitudinal dimensions and theoretical models explaining how these attitudes affect well-being. Part 2 focuses on identifying the dimensions of consumption outcomes in urban areas.

Chapter 4 contains the research design and empirical methodology to analyze the relationship between attitudes, values and SWB. This chapter includes data description, measurement of variables, analytical strategy, and results of the statistical analysis conducted to test the hypotheses outlined in part 1 of the theoretical framework.

Chapter 5 contains the research design and empirical methodology that shape the analysis of various consumption dimensions and their relationship with SWB across urban areas. This chapter also includes data description, measurement of variables, analytical strategy, and results of the statistical analysis conducted to test the hypotheses outlined in part 2 of the theoretical framework.

Chapter 6 – Concluding chapter where I summarize all my key findings. This chapter also contains some reflections about the larger canvas of inquiry from which motivation for pursuing these questions arose. In addition, I outline some future research pathways to follow up on my current findings.

# CHAPTER 2: SUBJECTIVE WELL-BEING AND CONSUMPTION – REVIEW OF LITERATURE

Subjective well-being is a concept about the perception of one's own quality of life in terms of his/her experienced happiness and satisfaction in life. "In the academic literature, the term subjective well-being refers to how positively or negatively a person experiences their own life, and it includes such things as positive emotional states, cognitive appraisals of one's life satisfaction, and a person's subjective sense that they are leading a meaningful life." (Ahuvia, 2008). The construct 'SWB' however arises from the general notion of 'happiness'. Research on happiness and the 'good life' has been an endeavor as ancient as civilization. Such a long scientific tradition has spawned a diversity of philosophy and definitions for happiness. Below is a commentary encompassing the major ideas that underlie the current research on SWB.

## 2.1 Definitions of Happiness in the Literature

I view happiness as a globally omnipresent phenomenon experienced and desired by humans. The feeling of happiness is a derivative and outcome of desire itself. Through the times of existence and recorded history, relentless pursuit of happiness has perhaps been the only consistent socio-behavioral aspect of reality displayed by humans, apart from the process of physical change itself. The race towards this state of consciousness overarches all other emotional, social and physical displays of human behavior.

Institutions, political and economic ideologies, moral values, legal systems, ethical standards, physical and mental activities, and even perceptions of reality are all intermediate, collective manifestations on humans' never-ending individual pursuit towards realizing this seemingly elusive yet proximate phenomenon called happiness. The realization and sustenance of this psychological state of consciousness may arguably be the goal of human existence. This view appears to have resonance with various philosophies guiding the definition of happiness – as the ultimate end of all human activity.

Many researchers (Ryff & Singer, 2006) cite Aristotle as one of the pioneers in framing a theoretical ground for happiness research. Aristotle in his work 'the Nicomachean ethics' said,

"Both the general run of men and people of superior refinement say that it [the highest of all goods achievable by action] is happiness, and identify living well and faring well with being happy; but with regard to what happiness is they differ, and the many do not give the same account as the wise. For the former think it is some plain and obvious thing, like pleasure, wealth, or honor" (Aristotle/Ross, 1925, p. 5).

Daniel Haybron (2000) classifies the major philosophical ideas of happiness into three definition approaches: psychological happiness, prudential happiness, and perfectionist happiness.

## 2.1.1 Psychological Happiness

Haybron defines psychological happiness as a state of mind involving feelings of joy, serenity and affection. Measurement of psychological happiness then follows conceptualizing and recording positive emotions of people over time. Closely related is the definition forwarded by Seligman (2002) as the 'pleasant life' – a life experience with

predominantly positive emotions. Having leanings to classical liberal philosophy, psychological happiness has given rise to two broadly popular approaches of conceptualization of what is essentially known as hedonic well-being.

First is the appraisal of positive and negative affective components of individuals and measuring well-being through summing up of these individual components. Positive affects typically involve, but are not limited to, feelings of joy, contentment and pleasure. Negative affects indicate feelings of sadness, depression, anxiety, anger etc. A large number of studies (e.g., Bradburn 1969; Chamberlain, 1988; Diener & Emmons 1984; Diener, Sandvik, Seidlitz, & Diener 1993; Diener, Smith, & Fujita 1995; Headey, Kelley, & Wearing 1993; Kim & Mueller 2001; Lucas, Diener, & Suh 1996; Watson, Clark, & Tellegen 1988) especially within the domain of psychology use this approach to measure SWB. A key complement to the psychological view of happiness is the neuroscientific evidence on pleasure-seeking behavior revolving dopamine and the rewarding mechanisms of the brain to external stimuli. However, mainstream empirical research understandably orients itself to more tractable survey-based instruments to define SWB and therefore are subject to intense contest.

The second approach of psychological happiness is to conceive happiness as a composite of momentary pleasures in real time (Kahneman 1999). In other words, Kahneman suggested that SWB could be defined and measured as the temporal integral of instantaneous sensations of pleasure and happiness. Through recording individuals' experiences at regular time intervals, one could evaluate SWB conditioned on objective circumstances surrounding those individuals. While intuitively appealing, 'objective happiness', as Kahneman terms it, is still misleading because people differ in articulating

their sensations especially when they have to repeatedly recover them from their memory to report it. Also, their so-called objective circumstances may not be independent of their intrinsic personality profile. In this line, Feldman (2010) raises objection of this definition through the illustrative example of a woman giving birth who is in pain but would report to be happy. Nevertheless, many situations might allow reasonable measurement of SWB based on Kahneman's definition although it should be read as subjective thus sharing characteristics of the scale-based definition mentioned earlier.

An important facet of Kahneman's approach is his substantive effort in connecting SWB with the popular economic construct of 'utility'. Kahneman, and subsequently many others, argue that the composite measurement of hedonic sensations is theoretically equivalent with the originally notion of utility originally conceived by Jeremy Bentham who motivated classical utilitarian economics.

# 2.1.2 Prudential happiness

While psychological happiness is labeled hedonic well-being, a section of scholars place greater loyalty to Aristotle's philosophy of 'meaningful life'. Aristotle views notions of fulfilment, engagement, prudence and meaning in life as greater necessities for SWB than hedonic pleasures. This essentially means that leading a 'good life' according to one's predispositions is as much or perhaps more important than extracting pleasant feelings out of experiences. The idea of prudential happiness is therefore an approach where 'life satisfaction' is conceived as a more reliable indicator of happiness than pleasurable affects. Many argue that happiness is satisfaction as a whole and would be based on subjective appraisal of one's past and present, and sometimes along with an outlook to future. A great majority of happiness researchers use self-reported levels of life satisfaction as a sole or

partial measure of SWB. A study that uses prudential happiness as SWB gathers self-reported levels of overall happiness and life satisfaction on suitable scale. A typical way of measuring life satisfaction is a single item with a three-point scale: "Taken all together, how would you say things are these days—would you say that you are very satisfied (1), pretty satisfied (2), or not satisfied (3)?" (Andrews & Robinson 1991).

# 2.1.3 Perfectionist Happiness

The perfectionist view of happiness looks at a desirable ideal life that is also moral. While this is somewhat overlapping with the aspects of prudential happiness, Haybron (2000) argues that a person may be psychologically happy and prudentially satisfied yet be evil to the society, thus the need for perfectionist aspects. This view therefore is more strongly weighted with ethical principles than the other two views of defining happiness but does not contradict their measurement approaches. An example – Lane (2001) defines SWB as the relation between a person's subjective and objective sets of circumstances. He lists nine elements of perfectionist happiness: (1) capacity for enjoying life, (2) cognitive complexity, (3) a sense of autonomy and effectiveness, (4) self-knowledge, (5) self-esteem, (6) ease of interpersonal relations, (7) an ethical orientation, (8) personality integration, and (9) a productivity orientation. Lane believes that these nine elements describing the psychological makeup of a person are the hallmark of mental health and social responsibility.

## 2.2 Defining SWB

While scholars have argued much about defining happiness using one approach or the other, I see noticeable overlaps among them. I also observe a lack of conceptual clarity when one chooses to adopt one approach over the other, because individuals who selfreport their well-being are likely to enmesh both psychological and prudential aspects of happiness when they make their mental evaluation. For example, an appraisal of good life cannot happen without remembering consciously or subconsciously sensations of pleasures and pain over the preceding time period. Similarly, satisfied and unsatisfied individuals may record different responses to experiences typically established as pleasurable or painful. Sanjuan (2011) conducts a study to test the hypothesis that psychological wellbeing (another term for eudaimonic well-being or perfectionist happiness) may influence subjective well-being (another term for prudential happiness or life satisfaction) through the mediating effect of affect balance (hedonic well-being or psychological happiness). His results support the hypothesized interrelationships among these three concepts of happiness. Psychological well-being tends to induce positive affect, which in turn plays a major role in life evaluations. Perfectionism and idealization of happiness is even more troublesome since it presupposes certain values as desirable to the society. Not only does such an approach limit the information collected from people, the measurement is loaded with biases because researchers impose a definite idea about morals and ethics. Morals and ethics are fluid at a personal as well as societal level and attributing certain morals as desirable is bound to be inaccurate and misleading. Human experience is far more varied and encompasses all these definitions of happiness, so none of these approaches exclusively satisfies the definition or the measurements that are derived out of them.

Just as there is diversity in scholarly views about defining happiness, I see greater diversity in the ways individuals define their happiness and satisfaction with life. The idea of subjective happiness as a research theme exists partly due to the recognition that individuals' perceptions about well-being are important as much as the socially accepted

markers of welfare and well-being. So, prolonging the intellectual arguments in order to establish a certain approach to defining SWB may not just be futile but counterproductive to empirical analyses. I see that definitions of happiness are bound to evolve as more evidence using the current methods surface in the literature. But until then, recognizing the validity and complementarity of each of the definition approaches explained above may be more fruitful when developing empirical frameworks.

In order to measure prudential happiness, I adopt self-reported overall happiness and life satisfaction scales. I do not adopt a perfectionist idea of happiness as I observe that it is a redundant conceptualization. The idea of perfectionism in happiness is highly subjective although social norms make it appear more homogenous. When individuals report their life satisfaction, they are likely to, consciously or unconsciously, use their moral profile as a mental layer to judge the events/actions that determine happiness. Prudential happiness therefore is likely to include the subjective idea of perfectionist happiness. Secondly, social and moral order is not a realm of happiness measurement per se although one may examine such conditions as extraneous factors influencing people's SWB. In other words, I hold that the global evaluation of one's life satisfaction is a parsimonious, all-encompassing definition that is both tractable and applicable to public policy discussions. I discuss the details of these measurements in chapter 4 while explaining methodology.

# 2.3 Is Happiness Subjective Or Objective?

The previous discussion on the definitions of SWB naturally leads to a critical issue that requires examination - Should happiness be defined and measured subjectively or objectively?

I contend that all theoretical concepts let alone happiness, are intrinsically subjective and will never be objective. This is because a subject – a researcher or an individual – is always observing a phenomenon from a certain point of view. The perspective of a researcher is conditioned by his/her previous experiences about the world. Given a certain world view, most people mistake socially accepted markers about phenomena as objective facts. Social and cultural acceptance of ideas are subjective realities that are dynamic and transitory in nature. Such ideas have no intrinsic objective truth to them except that they have a strong following among researchers as well as the public.

For example, take the concept of poverty. The concept of poverty is an end-product derived from a chain of subjective judgments about human survival and needs. The definition of poverty therefore is always inaccurate due to errors arising from human subjectivity and the underlying philosophies guiding the definition and measurement. Yet, most people ignore foundational beliefs and treat poverty levels and many social phenomena as objective ideas. In addition to the measurement and expression of such social phenomena using a convenient mathematical language, assertions that such quantification are objective is both misleading and inaccurate. Therefore, there can only be two types of definitions to all phenomena – socially accepted, and socially yet-to-be accepted. Socially accepted phenomena and processes that solidify as beliefs and ideology over time and therefore gets the label 'objective'. Socially yet-to-be accepted ideas and perceptions get the tag of subjective till they are accepted by dominant sections of the society under a particular cultural/political/intellectual regime. The confounding language in research circles that draws equivalence between objectivity and unbiasedness thus

reinforce the legitimacy of these so-called objective concepts. But as long as concepts continue to be defined by a subject or group of subjects, everything will be subjective (including this statement).

Consistent with this subjective idealist position, I argue that happiness is ultimately subjective although the so-called objective components, owing to their popularity in contemporary imagination, should be included in studying SWB. I recognize that individuals' subjective sense of well-being is the overarching measure since it is the result of one's reaction to his/her objective environmental conditions. And that the objective aspects are mediating mental institutions through which individuals process their sense of happiness and satisfaction. Following this logic, the dominant part of SWB literature deals with determining the factors of happiness and satisfaction. Following is a brief discussion on the important factors of SWB.

# 2.4 Correlates of SWB

SWB is studied at various scales, all the way from neurobiological mechanisms to national policy differences. However I limit my discussion here to socio-economic determinants at the micro (individual) level and macro (society) level. Causal theory of socio-economic determinants are not well-established, at least socio-economic variables are not independently causative without the psychological mechanisms underlying the interactions. Therefore, when I explain a relationship, I am only implying correlation and not causation.

Clark et al. (2008) find that both absolute and relative income play a role in the increase of SWB. Absolute income refers to the measure of income as one receives it whereas relative income is usually based on a reference point used by the person to evaluate

his/her absolute income. While income has featured both in micro and macro level studies, other economic factors also impact SWB. Frey and Stutzer (2002) find personal unemployment a strong micro-level factor for low SWB. At society level, macroeconomic conditions such as inflation, unemployment rate, and GDP growth rate and institutional factors such as political freedom, democracy, corruption are significant correlates of SWB. Inflation and unemployment affect SWB negatively (Di Tella et al. 2001), whereas the growth rate affects happiness positively (Welsch 2007b). Frey and Stutzer (2002) find that robustness of democratic institutions bring greater happiness. But conflicts such as terrorism, civil war and inefficiencies such as corruption have significant negative effects on happiness (Frey et al. 2009, Welsch 2008a, b). In addition to these environmental factors, research also shows that pollution (Ferreira and Moro 2010; Luechinger 2009; MacKerron and Mourato 2009; Menz and Welsch 2010, 2011; Welsch 2002, 2006, 2007a, Israel and Levinson 2003, van Praag and Baarsma 2005), other climate variables ((Rehdanz and Maddison 2005) and natural calamities like floods and droughts (Luechinger and Raschky 2009, Carroll et al. 2009 respectively) influence the variance of SWB. In addition, Helliwell (2002) brings a whole host of socio-demographic variables such as age, sex, marital status, health status,

#### 2.5 Income, Consumption and SWB

Relationship between income and SWB has been both supportive and contradicting of the long-held views of classical and neo-classical economic theorists. Cross-sectional studies indicate a positive relationship between income and SWB whereas longitudinal analyses reveal minimal or no relationship between these variables.

Easterlin (1974) shows that the proportion of people satisfied/happy in the United States has remained the same over the last 50 years despite the GDP tripling in the same time period. A similar empirical phenomenon is observed in the case of Japan which also progressed economically over this time period and yet has been unable to increase the life satisfaction levels of its population. While Easterlin concludes that money does not buy happiness, results of the cross-sectional analyses shows a consistent positive relationship between income and SWB. Typically, studies are conducted to compare between individuals or between nations. Diener (1995) surveys 55 nations using the World values survey, whereas Veenhoven (1991) and Inglehart (1990) use a different set of countries to produce similar results. At the individual level as well, higher income is associated with higher levels of SWB in cross-sectional studies. However, many researchers find this correlation is small (for an overview compare Argyle 1999, 2001; Diener et al. 1999; Diener and Biswas-Diener 2002) compared to aggregate-level studies, a situation analogous to modifiable-areal unit problem (Fotheringham and Wong 1991). Both individual and societal level studies show a positive curvilinear relationship between income and SWB as shown in figure 2.

These inconsistent relationships have been instrumental in spawning a wide range of theoretical discussions on how income may or may not be related to happiness. Following are the common theoretical approaches to explaining the relationship between income and SWB.

Need Theory (Veenhoven 1991, Veenhoven and Erhard 1995) suggests a direct link between objective conditions and subjective notions of well-being. While analyzing SWB at the country level, higher livability characterized by greater wealth and greater freedom

of choice gives reason for people to be more satisfied with their lives. The diminishing marginal return of income however ensures that such increases in satisfaction do not extend infinitely, therefore the curvilinear relationship between income and SWB (Figure 2). This way, Veenhoven explains that poorer parts of the world, when deprived of wealth necessary for purchasing basic necessities, produce larger decreases in SWB whereas the opportunity cost of buying luxury goods in affluent societies does not decrease SWB as much. The needs approach motivates two aspects of further study. While the approach rightly focuses on material needs of people, no deeper explanation is available on the exact changes in needs-driven SWB based on the conditions in richer and poorer parts of the world. Relationship between wealth and SWB as posited in this approach is merely speculative unless the needs are explicitly specified and modeled in empirical studies. Secondly, the needs approach takes a coarse view of the relationship without commenting on other psychological mechanisms that intervene in the changes in SWB. The question of measuring income in more comprehensive terms and also the need to build stronger theoretical ground, as posed in this dissertation, directly flows out of the inadequacy of this extant framework.

Another approach is the relative standards model which explains changes in SWB as a function of changes in standards that people use to judge their situation. Individuals use their past memory to evaluate themselves, therefore relative differences in wealth take precedence over absolute wealth. This model invokes three mechanisms well-established in psychology (Easterlin 2001, 2002).

- 1. Social Comparison: People compare themselves with their world when evaluating how they fare in their lives. People feel better or worse based on the direction of comparison and the degree of difference they perceive with their reference point.
- 2. Adaptation: The standards used by people to compare themselves with others continuously change and therefore SWB may not undergo increase over time in real terms. This supports Easterlin's evidence about SWB as a set level that is independent of rise in income.
- 3. Aspiration: People aspire to do better and look upward when making social comparisons, therefore nullifying the gains due to additional income or wealth.

The relative standards model gives us greater insights on the temporal variation of SWB but it falls short of explaining the differences in cross-sectional studies. In addition, further improvements to this model as proposed by Cummins (2002) argues that income influences satisfaction indirectly through influencing a person's sense of self-esteem and his immediate environment. Given the lack of straightforwardness in the relationship between income and SWB, this approach also calls for greater rigor in the operationalization of wealth within both individual and aggregate level models of SWB. More importantly, identifying a better conceptualization for wealth needs stronger footing on the theories that explain wealth generation, wealth disparities and changes in the environment of economic power.

Yet another approach relating the curvilinear relationship of SWB with increasing income is using the notion of post-modern values. Inglehart (1997) observes this curved functional form (figure 2) and speculates about rising post-materialist values in affluent societies explaining why SWB does not rise beyond a certain level of income. Delhey

(2010) also forwards this idea that developed nations may be embracing a different idea of wealth and consumption because, due to their relative affluence, they may have transcended the idea of basic necessities and thus have little insecurity compared to poor nations.

Combined with contemporary ideas of sustainable development, eco-sensitive living, fair-trade practices, a greater awareness about the ill-effects of materialistic living may divert people of rich societies to look for non-income methods of happiness and life-satisfaction. While people appear receptive to these alternative lifestyles echoed in the recent popular discourse, the mainstream picture of policy practices and consumption in developed countries does not fit well with this argument. Apart from this non-intuitiveness, I see that such interpretations are drawn from the common bivariate visual relationship between income and SWB among nations – this could be misleading unless this thesis is tested within the entire distribution of SWB. Again, the measurement of income is a

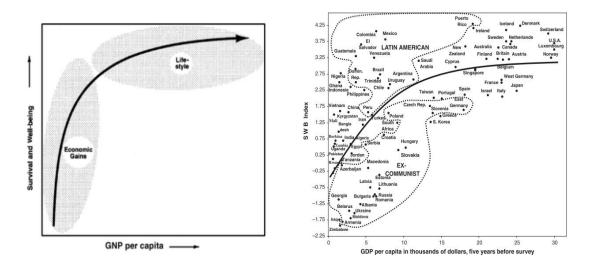


FIGURE 2: Income – SWB curve (Source: Inglehart 2000)

problem. While measurement confines to one indicator, interpretations surprisingly broaden to larger concepts of consumption and wealth. These assertions need testing in the context of comparative transnational studies. Some studies compare coefficients of income after dividing the sample into developing and developed nations. But this is a methodological fallacy because it involves truncating the sample thereby violating distributional assumptions. The integrity of the sample needs to be maintained to test the hypothesis if the coefficient of income on SWB is indeed smaller at higher levels of well-being or income.

Apart from these theoretical models and their shortcomings, there is almost no evidence about how income and SWB is related across urban areas. Many individual level studies, due to their study area being an urban area or a largely urbanized country, do indirectly inform about how SWB varies within cities. However, there has been no comparative study across cities that evaluates the difference in SWB with wealth. Ballas (2013) indicates this scarcity while calling for a reconciliation of the objective and subjective aspects of well-being – an issue of key importance in the context of urban areas where 'quality of life' (Marans & Stimson, 2011) is discussed widely in policy circles. While individual level analyses help deeper explanations about the mechanisms, societal level studies are important supplements that inform policy. Nations as a scale of analyses are relatively more vulnerable to contextual influences and vast cultural variations. However urban areas, as I see them, are the most appropriate scale of analyses for several reasons.

First, cities are the main engines of consumption where most of the human activity and wealth is concentrated. One may argue that city cultures across world regions also

varies significantly along with the diverse national and regional contexts. However, I see that the underlying philosophy of city creation, development and maintenance across the world is homogenized by their common economic fundamentals. The economic imperative, which involves high baselines for survival (a.k.a. high standards of living), heightened competition for resources at both individual and institutional levels, stressful lifestyles and rising aspirations are common to most urban areas. The ever-rising wealth is a concurrent phenomenon to the dynamic culture of consumerism that characterizes all urban areas worldwide – a theme that has found considerable attention among urban theorists, sociologists and other disciplinary literature. Sklair (1991) summarizes consumerism as "the culture-ideology which proclaims, literally, that the meaning of life is to be found in the things that we possess. To consume, therefore, is to be fully alive, and to remain fully alive we must continuously consume." Value-systems that stimulate people to consume beyond basic necessities is both a cause and an effect of morphological characteristics of urban areas which then transform living spaces into primarily consumer spaces. For more detailed discussions on consumer culture, see Harvey (1996), Zukin (1998), Miles (2010).

The study of variegated modern urban problems such as congestion, inequality, environmental degradation, loneliness, unemployment etc. are then fragmented reactions to the powerful consumer culture that supervises modes of urban growth and change. This pervasive culture of consumption (Lasch 1979) diminishes the distinguishability of consumer and non-consumer aspects of life therefore setting ground for institutional processes of commodification of the environment with minimal discrimination or social frictions. Observing recent urbanization patterns, we may characterize current urban areas

as having a far-greater focus on building global cities and cultivating inter-city competition in the name of the so-called 'market culture'; this is the environment the whole world is aspiring to become – a religiously maintained consumption space that seeks to expand infinitely. From this perspective, cities are important units of analyses to study changes in SWB. In addition, there is a definite spatial limit to most people's consumption activity and their interactions with their environment – this can be clearly captured with the defined urban areas.

A key aspect of this discussion is the inter-relationship between the primary variable of interest in the extant literature - income, and the broader related ideas of wealth and consumption which have received relatively less attention. I see income as a dynamic measure of personal outcome from engaging in economic activity, whereas wealth indicates the monetized result of longstanding personal investment decisions that result in the accumulation of material assets. Clearly, the distinction between these concepts has theoretical implications on the studies about SWB. Mullis (1992) uses a composite index of permanent income, measured as the average income over several years, and annualized net worth, which set the balance of a person's savings and debts in proportion to his or her remaining life expectancy. Mullis could show that this index was a better predictor of subjective well-being than traditional measures. Following on this work, Heady et al. (2008) argue explicitly that income is not necessarily the best indicator of material standard of living. They introduce alternate measures of wealth and consumption indicators and find that the aggregate effect of material situation on one's well-being is larger than has been argued in the literature on income and SWB. D'Ambrosio et al. (2009) also make a similar effort by measuring the average income over several years instead of current values and

supplementing this by wealth measurements. These nascent research efforts in improving the measurement of income and integrating wealth into the equation are useful but they still are limited indicators to the broader concept of consumption.

Neoclassical utility theory is the most popular framework through which urban societies relate to the concept of consumption. Bentham (1789) introduces the abstract concept of *utility* through his idea that consumers, out of self-interest, pursue resources and activities to increase pleasure and reduce pains. Utility according to Bentham is a latent indicator of satisfaction derived from consumption. Like many utilitarian philosophers, Bentham also belongs to a group of early classical economists who propose that happiness is the ultimate goal of man. But as McFadden (2014) contends, later neoclassical economic theories modified the conceptualization of utility. The explicit definition of utility by early economists (Bentham, Edgeworth) contains allowances and recognition for feelings of happiness and satisfaction as an end-goal. However, later work involving measurement of utility argues that utility is not directly measurable. Hence economists observe consumer choices and consumption decisions to derive a utility function indirectly based on their preferences and willingness to pay. In other words, neoclassical economists redefine utility as an ordinal index of preferences instead of measuring a cardinal concept that indicates the end of consumption.

The utility function is derived on the basis of an individual's consumption bundle – the list of goods and services he/she purchases. The size of this bundle is determined and limited by the budget constraint – the amount of money he/she has. This is where income or wealth factors in. In addition, utility theory assumes monotonicity of preferences, ie, a person would unconditionally prefer more to less goods and services to consume. Given

this framework, we may prove that higher income expands the consumption bundle and results in larger utility. However, the definition of utility is still limited to, as Kahneman contends, the so-called 'decision utility' and may not be confused with the cardinal idea of satisfaction derived from consumption. "In the older (Bentham's) interpretation of utility, the question of whether choices maximize utility has a simple meaning: do people choose the options that they will most enjoy. In modern decision theory, which ignores the distinction, the question is quite different: are preferences consistent with each other and with the axioms of rational choice" (Kahneman and Thaler 2006). Nevertheless, the idea of increasing utility with income injects a great sense of optimism at policy levels. Hence the macroeconomic policies that aim at expanding budgets and GDP at all political levels.

Studies (Brewer et al. 2006, 2008; Headey 2008; Meyer and Sullivan 2003; Noll and Weick 2007) therefore contend that expenditure or consumption measures have theoretical advantages compared to their income-based counterparts and are often considered to be superior to the latter. Income or wealth provides only a partial view of an individual's or society's consumption environment. Measurement of alternative measures of income, and other macro-variables of consumption in a person's local environment however are fragmented across several studies and need to be integrated within one framework. For example, studies about inflation and its effect on well-being is an interrelated macro-attribute of consumption that requires evaluation alongside income and wealth measurements. Also needed is the explicit specification of institutional stimulants of consumption such as fiscal and monetary policies that move along with varying levels of income and inflationary conditions.

# 2.6 Summary of gaps in the literature

The gaps in the literature are four-fold. 1. The measurement of income is limiting and needs better conceptualization so that objective consumption conditions could be better specified as factors of differences in SWB. 2. There is a need to improve the method on how income's sensitivity to well-being is analyzed in aggregate-level studies. 3. There has been no comparative study of SWB at city level involving both developed and developing parts of the world. 4. There is no adequate framework to theorize the relationship between income and SWB at a cross-sectional level.

To this end, I formulate the following research questions:

- 1. How to expand the specification of the income-SWB empirical framework in order to incorporate and study the broader idea of urban consumption? In other words, what is the broader context of consumption outcomes that informs how wealth is related to SWB?
- 2. How do the various dimensions of consumption affect SWB across cities? Are these dimensions individually important in explaining differences in SWB among cities?
- 3. Does income show a lesser sensitivity to SWB in cities with higher levels of well-being/income?

In order to begin investigating these gaps in the empirical literature, I widen the canvas and situate these hypothetical relationships under a broader theoretical framework in the next chapter.

#### CHAPTER 3: TOWARDS A THEORY OF URBAN WELL-BEING

## 3.1 Central Thesis

My discussion of and its relationship with wealth as debated in the extant literature is rather an innocent form of academic discourse on life satisfaction in contemporary society. The emerging focus on consumption instead of wealth, as identified earlier, is a necessary shift in the right direction, so is the richer characterization of socio-economic life and its effects on well-being. However, developing a theoretical framework for contemporary SWB will remain weak as long as researchers continue to churn out empirical results but refrain from explicit specification of the larger social context. Psychologists stridently point out the weak relationship between wealth and SWB. But their commentary about larger institutional factors that are linked to the psychological mechanisms defining relationships between wealth and SWB is implicit at best or nonexistent at worst. My previous review about empirical relationships, gaps in the literature and research questions can only be seated by a larger thesis that bridges the macro and micro approaches of analyses. This is the purpose of developing this framework. The following is the central thesis of this research effort. The following paragraphs provide a summary of the arguments I will expand throughout this chapter.

Institutions dominate people's lives by actively and passively propagating values, shaping beliefs, changing perceptions and attitudes, and setting rules and constraints on

how to think, feel and act in daily life. Contemporary world society is dominated by institutions that enshrine the ideology of neoliberalism. Contemporary world society is dominated by institutions that enshrine the ideology of neoliberalism. Mainstream discourse on globalization, global capitalism and even the SWB literature about wealth and income, in the face of dramatic socio-economic disparities, is an indirect recognition of the larger force known as neoliberal institutionalism. In the last three decades, neoliberal values, guided by the neoclassical economic theory, have rooted themselves strongly world-wide. The popularity of consumption and materialism in public policy is driven by these institutions which advocate, and in many cases enforce, a market mechanism of competition and wealth accumulation for observing and practicing social relationships. In order to sustain their political stability and legitimacy, neoliberal institutions seek to propagate their intrinsic operational principles to social life formally through the education system and public policy, and informally through the mass media. These principles percolate into societies in varying degrees and may reflect in people's attitudes, beliefs and aspirations about economic, political and social dimensions of their environment. In today's societies, these are the dominant internal tools with which people interact with their social environment and thus they determine their level of happiness and life satisfaction.

Congruence models within SWB claim that people whose values are in harmony with their living environment would be happier and more satisfied. In this line, I argue that people who align themselves more with the neoliberal ideological values will face less mental frictions during their interaction with the environment and therefore have greater well-being. As corollary, I hypothesize that people whose values and beliefs depart from the mainstream institutionalized beliefs driven by neoliberal agencies face more internal

and external struggles therefore negatively affecting their well-being. In other words, people who have been educated or predisposed to be compliant to neoliberal ideology will go with the flow therefore have greater well-being while people who swim against it have lesser satisfaction because the current is too strong and the journey appears vain. This primary argument brings two connected themes into the framework.

First, the inextricable spatial manifestation of neoliberal institutions - urbanization. Urban areas are catchments as well as sources of neoliberal ideological propagation and are institutions in themselves. Contemporary urban areas are largely shaped up to serve and attain the consumption ideals and imperatives set forth by the neoliberal paradigm. People in urban areas are intimately connected to a lifestyle guided by market fundamentals, and therefore, out of heightened survival or aspirational qualities, may align closely with the neoliberal way of thinking. Given the intensified competition for survival and ever-changing baselines of survival and progress, I hypothesize that people in urban areas may be more congruent to neoliberal thinking, either to further their aspirations or to minimize social pressure that comes from falling out of line. Thus their well-being may be more sensitive to congruence than those in other dispersed rural areas.

The second theme is the primacy of consumption as a neoliberal institutional goal which manifests as an essential urban characteristic. I argue that the dominance of neoliberal institutional ideas in public policy paves the way for the creation and measurement of popular indicators of consumption. Indicators such as average income, inflation rate, and GDP per capita, are now institutionalized into both personal and societies' psyche and their variability may explain differences in aggregate well-being across urban areas. Underlying these indicators are the objective conditions of consumption

as dictated by the neoliberal market-systems regime. Therefore, identifying and measuring the dimensions of consumption at a macro-scale supplements information for the framework of individual-institution interaction. This sub-theme in the framework is the current focus of SWB literature as I described in the previous chapter.

In order to test these contentions, I divide the empirical analyses into two parts.

Part 1 defines the characteristics of neoliberal institutions, the consequential reflective individual values, attitudes and beliefs of people, and the yardstick of congruence in the individual-institutional values. By measuring individuals' position on the various facets of neoliberal institutionalized thinking, I model individual subjective well-being as function of these ideological dimensions. I compare the effects of these values and attitudes on SWB between urban and rural areas in various geo-economic regions.

Part 2 defines the macro-dimensions of objective indicators of consumption environment in urban areas. I model aggregate subjective well-being across a cross-section of cities as a function of these dimensions while controlling for historical growth parameters in order to identify how consumption outcomes are related to happiness and life satisfaction in cities.

# 3.2 Consumption Capital Framework

The essence of this theoretical framework is based on the self-evident primacy of consumption across the world. Therefore I call this the 'consumption capital framework'. Consumption capital simultaneously means consumption as an ultimate objective as well as a concept that encompasses systemic mechanisms and dimensions of human consumption affecting Individual and collective happiness and life satisfaction. Figure 3 shows the skeleton of this framework along with the related theoretical components from

various streams of literature. I explain this framework below in two parts. Part 1 focuses on individual well-being as it is related to the attitudes towards institutions that uphold consumption's primacy. Part 2 focuses on the aggregate dimensions of consumption as they relate to the differences in well-being between urban areas.

Humans consume to maintain their lives. Consumption however evolves with civilization, and currently the most visible and popular form is urban consumption, the version that is most commonly associated with unsustainability and social inequality. I define consumption as the act of gaining possession of goods and services for individual/collective use. In a broader sense, consumption of ideas and knowledge is consumption too, however the degree of exclusivity in possessing and using ideas is not as tractable as materials. (The intellectual property rights regime however is changing the perception of knowledge consumption as well) The notion of public goods arises from this intractability of material or service usage – private property rights are selectively relaxed on economic sectors where non-exclusivity of use is prevalent or desired. Material consumption, as I frame it in this dissertation, is the act of consuming goods and services only, although one can't easily discount the intimate relationship between transfer of ideas and transfer of materials. The philosophy that gives paramount importance to consumption and regards consumption as the dominant goal in life is materialism. Materialism founds itself on the ideas that greater consumption of materials leads to greater life satisfaction. However, these ideas and beliefs percolate into people through exogenous education about what is important in life. Prior to understanding the institutionalized attitudes and beliefs in a consumption-driven environment, I describe a basic individual-level behavioral structure of well-being in the next section.

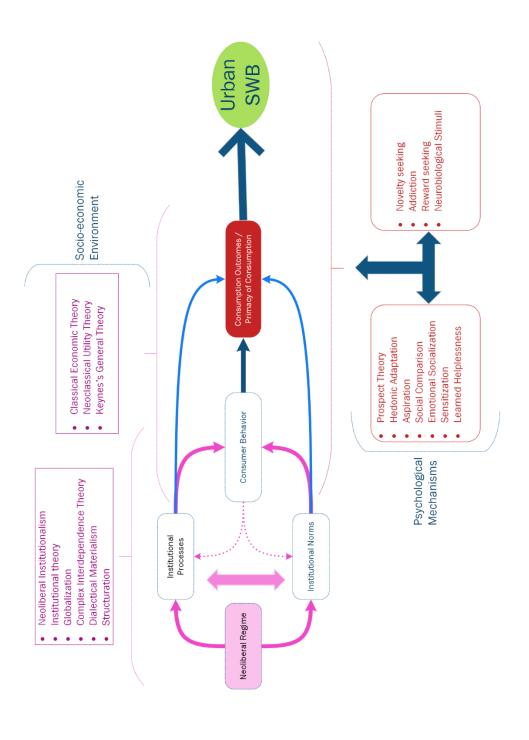


FIGURE 3 : Outline of consumption capital framework

# 3.3 A general behavioral framework

Social behavior produces experiences. The derivative of these experiences is a certain level of happiness (or unhappiness). SWB is an end-product of spatio-temporal experiences containing varying levels of momentary happiness, whereas behavior is a generalization of actions that produce experiences.

Figure 4 shows the broad behavioral framework of experiential SWB. An Individual's SWB is a function of his/her genetic predisposition and social conditioning. This combination determines one's action and therefore allowing to judge the well-being produced from the action. Most of the literature is about the nature of social conditioning and well-being. The internal process of social conditioning concerns the values, beliefs and attitudes one internalizes and identifies with, and the personality traits, both of which are influenced by genetic traits. One's personality is dynamically determined by the changes in one's composition of values, beliefs and attitudes. While these are largely internal processes, they may be measured through their external expression in the environment. In other words, judgments, actions, assessments about one's own situation and society's situation are the channels through which one expresses his/her values, beliefs and attitudes. Repeated and consistent patterns of these expressions is captured as behavior.

Simultaneously, changes in the socio-economic conditions and larger rules of the environment continually educate and update one's internal processes. The external feedback processes influence one's attitudinal composition. The degree and pace with which environmental feedback impacts one's internal predispositions may vary but this interaction itself is well-established in the literature. Since one's behavior and well-being is based on actions and resulting experiences and these actions are pre-conditioned by the

environment, we need to recognize and characterize this environmental feedback with greater clarity. So, How to characterize this environment?

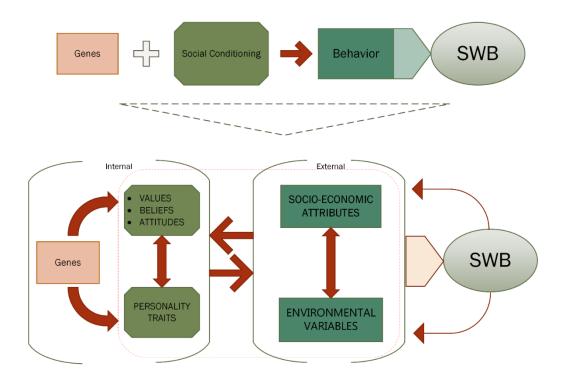


FIGURE 4: Basic structure of individual well-being

## 3.4 Neoliberal Institutionalism

Institutions of power, both economic and political, reinforce the legitimacy of materialism and unbridled resource exploitation in most countries. They determine the modalities of accumulation and allocation of resources. Also, they advocate the quantity and quality of information disseminated to the population through financial controls over the intellectual and social capital of mass media and formal education system. One receives the data to update his/her values, beliefs and attitudes about the society through this well-established power structure.

Researchers call these entities by many names - States, nations, corporations, organizations, government etc. – and tend to isolate their structures and functions to understand them exogenously. This predominantly reductionist system of understanding is then fed to the public who carry forward beliefs about institutional diversity. Such a reductionist paradigm, while advantageous in developing a more incisive research agenda when there are limited resources, often remain blind to common undercurrents that are spatially and temporally stable across these institutions that otherwise appear diverse. One such contemporary undercurrent that shapes world culture is the socio-cultural concept called 'neoliberalism'. In the recent decades, the global structure of political economy is shaped largely by neoliberal ideals in varying degrees based on countries' economic and political history (Brenner and Theodore 2010). So, what is neoliberalism?

Neoliberalism is commonly defined as a political ideology that seeks to establish market rules to the social life through promotion of global free trade, economic competition and a free flow of goods, services and capital unencumbered by political or social interventions. According to David Harvey (2005), "

"Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices. The state has to guarantee, for example, the quality and integrity of money. It must also set up those military, defense, police and legal structures and functions required to secure private property rights and to guarantee, by force if need be, the proper functioning of markets. Furthermore, if markets do not exist (in areas such as land, water, education, health care, social security, or environmental pollution) then they must be created, by state action if necessary. But beyond these tasks the state should not venture. State interventions in markets (once created) must be kept to a bare minimum because, according to the theory, the state cannot possibly possess enough information to second-guess market signals (prices) and because

powerful interest groups will inevitably distort and bias state interventions (particularly in democracies) for their own benefit" (Harvey 2005).

For a larger description of neoliberalism, its historical evolution and its ascendancy as the dominant institutional framework in the post-Cold war world, refer to Harvey (2003, 2005, 2007), Saad-Filho and Johnston (2005), Palley (2005), Brenner and Theodore (2002), and Anderson (2000). Richard Robbins, in his book, 'Global Problems and the Culture of Capitalism' summarizes some of the guiding principles behind this ideology of neoliberalism:

- Sustained economic growth is the way to human progress
- Free markets without government "interference" would be the most efficient and socially optimal allocation of resources
- Economic globalization would be beneficial to everyone
- Privatization removes inefficiencies of public sector
- Governments should mainly function to provide the infrastructure to advance the rule of law with respect to property rights and contracts.

These principles are means to an end although they read like outcomes themselves. The end is rather ubiquitous — consumption. Maximizing consumption is the unwritten overarching imperative of the principles of neoliberalism, and this is best reflected in the cultural values of urban areas. Across most of the world, a global neoliberal socio-cultural regime dominates our daily life in the form of human activity gravitating towards unfettered wealth generation and consumption in urban areas. Brenner and Theodore (2002) explain the extent to which neoliberalism creates new forms of urban inequality according to whether or not an individual or social group fits the eligibility criteria of the

consumer society as part of the imposition of a neoliberalized urban authoritarianism. They also argue that the main aim of neoliberal urban policy is to mobilize the city as an arena for market-centered growth and for elite forms of consumption.

As discussed earlier, neoclassical economic theory, which forms the backbone for propagating transnational neoliberalism, is rooted in utility maximization of consumption decisions. Its axioms legitimize and naturalize the pursuit of more goods without limits, and it predicts that a larger budget strictly increases utility. Notwithstanding the documented disconnect between utility and well-being, the neoclassical framework becomes the prime instrument to justify economic growth policies and reforms despite its undercutting on the social welfare and democratic processes. By framing the national pursuit of wealth as a reflection of individual consumer demand and aspirations, institutions usually attempt to shield themselves from being portrayed as dominant players of neoliberal growth ideology. Institutions' role in educating, encouraging and coaxing the population to follow those aspirations is then conveniently discounted as well. This ongoing dynamic between institutions and individuals mutually reinforcing these ideals thus establishes the primacy of consumption within the neoliberal narrative. I contend that the drivers of this consumption ideal, implicit in the criticism within SWB literature, are institutions and the values they educate the population with.

#### 3.5 Institutionalized Values in a Neoliberal World

Three main institutional pillars support the neoliberal regime – large business organizations, national and international financial institutions, and national governments. While economic institutions have been historically influential in political leadership, the expression of these institutions under the current post-war democratic order sets the context

for the neoliberal project. Given the democratic politics in a significant part of the world, national governments are the most unstable aspects of a neoliberal regime. Maintaining a transnationally homogenous economic regime is even more complicated due to cultural and historical differences across the world. Due to these reasons, political legitimacy for executing neoliberal reforms requires popular support to a certain extent so that existing relationships between the businesses and the state remains intact. To ensure this, institutions use formal education as well as persistently supportive media commentary to inject neoliberal principles into people to a degree where these ideas become 'common sense' and 'obvious'. Such naturalization, when achieved, ensures stability to the regime and furthers its expansion to less receptive populations. In other words, institutions educate individuals to support, or at least not to dissent so that the political processes necessary for the maintenance and expansion of neoliberal regime are implemented without delay or obstacles.

In the following section, I describe the various value dimensions of neoliberal institutions that trickle into public psyche over space and time. Figure 5 shows these dimensions graphically.

#### 3.5.1 Privatization

Neoliberal institutions believe in unhindered exercise of private property rights and privatization of public assets as essential aspects of improving business environment and efficiency. A key part of implementing economic and political reforms especially in developing countries in the last few decades has involved great persuasion from international financial organizations such as the World Bank and the International Monetary Fund to privatize state-controlled organizations through the so-called 'structural

adjustments'. This is usually justified as a remedy for inefficient bureaucracies and corruption. Institutions, through the media, portray the transfer of control from public sector to private sector in unequivocally positive light. Therefore, an individual's positive

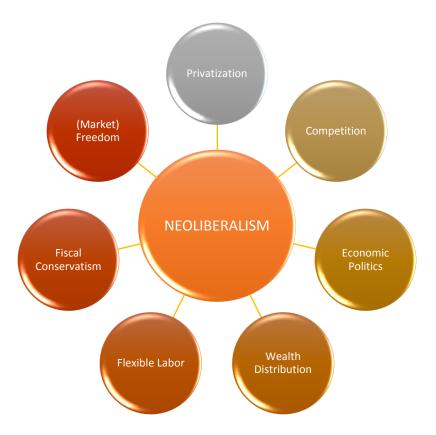


FIGURE 5: Neoliberal attitudinal dimensions

attitude towards the ownership and transfer of assets to private sector and large businesses therefore is desirable for neoliberal institutional stability.

# 3.5.2 Competition

Given the ideology of free markets and free enterprise, neoliberal institutions place great importance on the idea of competition. Competition, economic or otherwise, is perhaps the most pervasive feature of modern-day societies – to an extent where people have no choice but to compete in a demanding environment set by pre-existing institutional

arrangements. The assertion of neoclassical economic theory that competition produces the optimal and efficient outcomes is the most popular perspective of thought that has infiltrated societies. A favorable disposition towards competition ensures latent support for neoliberal institutions on two major fronts. 1. Their core functions of competing and expanding into new markets 2. Their relationship with labor and setting of organizational management practices.

### 3.5.3 Flexible Labor

A related idea to competition - neoliberal institutions seek flexible labor markets. This means minimizing labor rights, reducing collective bargaining entities such as unions, and executing legal provisions to ensure that labor population are as easily disposable as other means of production. Large-scale spatio-temporal shifts in production that result in significant changes in urban societies are visible results of flexible labor markets. For example the decline of manufacturing cities of the mid-west due to capital flight to Asia and the simultaneous persuasion of undemocratic labor practices in these new production centers are illustrations of how flexible labor markets can manifest in a society. However, the dissemination of this idea to the general population is couched on very different aspects.

1. Greater rights to labor involve greater costs and lesser productivity, and therefore negatively affect the consumption due to higher prices. 2. Unionization decreases capital investment and discourages employment generation. Therefore, an unfavorable attitude among people towards greater labor rights is a desirable neoliberal outcome.

## 3.5.4 Economy not Politics

In a neoliberal world, economy is everything; because everything is marketable.

Therefore, there is an unprecedented emphasis on the economy in all political and social

discourses. The pre-eminence of economics as an influential academic discipline within policy development, the disproportionate focus on economic implications by the media, and a consistent political rhetoric about national visions grounded on economic growth are indicators and motivators for people to think of their life and society in economic terms. Given the established ideas of optimality and efficiency and a culture of consumption reinforced by institutions, individuals whose political visions are grounded more on the economic growth are more amenable to neoliberal action plans and reforms. The limelight on economic indicators and growth parameters and their usage by individuals to gauge their society deepens the legitimacy of neoliberal institutions.

The individual's focus on economy being a desirable attribute for neoliberal institutions is only a part of the battle. A deeper interest in politics, unless strictly favorable to the regime, could increase an individual's access to information about the workings of the institutions and may evoke critical thought. Therefore, a shallow interest in politics or apathy towards political processes could be a favorable attribute as well.

# 3.5.5 Fiscal and Monetary Reforms

This is yet another important aspect of the popular discourse under a neoliberal regime. Institutions push for taxation policies that minimize their social overhead, yet be able to drain social resources for private economic gains. In addition to a sloppy accounting of social costs of economic reforms, neoliberal institutions use taxation as an instrument to garner popular support for privatization and reducing the welfare state. Reorienting the narrative about progressive taxation as an impediment to consumption, or as a discouragement to capital investment, or as an infringement on personal economic freedom, neoliberal institutions garner public support. Individual level conservatism when

it comes to taxation therefore is another favorable attitude to maintaining a neoliberal regime.

#### 3.5.6 Wealth Distribution

Neoliberal economic growth evidently has bred glaring inequities in growth and wealth distribution among people. Critical awareness and reaction to social and economic inequalities emanating from neoliberal policies is clearly a threat to the regime's stability. Therefore, institutions feed stories and role models of opportunities and growth to entice the population into believing the cause of inequality is somehow the remedy as well. In effect, neoliberal advocates criticize inequality but portray it as a consequence of political regulations that undermine free markets. Being indifferent or favoring inequality is an attitude congruent with neoliberal ideals.

# 3.5.7 Freedom and Liberty

The background of neoliberalism is based on a crusade for liberty and freedom from tyrannies and fascism. Despite the lack of connection between freedom of markets and human freedom, neoliberal institutions base their ideas on a broad definition of freedom while communicating their actions to the general population. Most of this however translates to ideas of consumer freedom of choice for developed countries so that they consume strictly based on the asymmetrical information disseminated by changing marketing models. Expansion into new markets by neoliberal institutions sometimes are hindered by foreign political hostility which require armed interventions. Then, ideas of freedom become effective tools to justify the masses about the monopoly violence of the state infringing others' freedom. When freedom is dealt with paradoxical actions, measurement and attribution of freedom may be fraught with erroneous interpretations.

Karl Polanyi (1944) observed two kinds of freedom, one good and the other bad. The bad part is 'the freedom to exploit one's fellows, or the freedom to make inordinate gains without commensurable service to the community, the freedom to keep technological inventions from being used for public benefit, or the freedom to profit from public calamities secretly engineered for private advantage. However, 'the market economy under which these freedoms throve also produced freedoms we prize highly. Freedom of conscience, freedom of speech, freedom of meeting, freedom of association, freedom to choose one's own job'. While we may 'cherish these freedoms for their own sake',—and, surely, many of us still do—they were to a large extent 'by-products of the same economy that was also responsible for the evil freedoms'. A heightened appreciation of freedom is therefore a favorable attribute, especially in developed nations, for furthering neoliberalism.

# **3.5.8 Summary**

These seven dimensions of neoliberal thinking that I have identified give a broad picture of the nature of the environmental feedback one receives and internalizes under a neoliberal institutional regime. The attitudes one maintains are predominantly the reflections of the institutions' values although people prefer to take ownership for their behavior. The formation and exercise of these attitudes however influences one's decision making as well as the quality of one's experiences therefore influencing his/her happiness and satisfaction. Next, I describe the model through which one can observe the measured relationship between these attitudes and individual SWB.

# 3.6 A Hybrid Congruence-Socialization Model of Well-Being

The psychological literature on SWB proposes various models of individual well-being (For more details, see Diener and Lucas (1999). Temperament models reason that SWB is a function of some baseline temperament that is largely biologically determined. Cognitive models explain, in addition to biological stimuli, the ways we process rewards and punishments which operate as instrumentals in producing outcomes of well-being. They assert that cognition affects behavior and external circumstances, and thus SWB. Goal models posit that people's goals rather than resources bring in variations of SWB. Emotional socialization models describe how classical conditioning and instrumental learning and imitation affects emotions (Malatesta et al. 1986). One is educated on what and how to express in a society based on the cultural norms. This implies a tendency for individuals for conforming to the rules and structures, especially when they are naturalized into the culture. Emotional socialization processes explain how the neoliberal social attitudes could determine a person's level of well-being.

While socialization of norms by individuals grounds my contention about the relationship between neoliberal tendencies and SWB, hypothesizing about the varying levels requires additional mechanisms. In addition to the above models, congruence models describe that a person's SWB is dependent on their fit with the environment they live and function in. This directly informs my hypothesis that people whose attitudes are more congruent with mainstream discourse on neoliberal ideas are a better fit with potentially higher well-being than people who rebel against the conventions of today's consumption driven society. So my framework sits within a hybrid congruence-socialization model to explain how these attitudinal dimensions are related to SWB. Determination of the fit and

congruence however requires a more nuanced characterization of individuals in relation to neoliberal attitudes. So I formulate a quadrant system of individual typology as shown in figure 6.

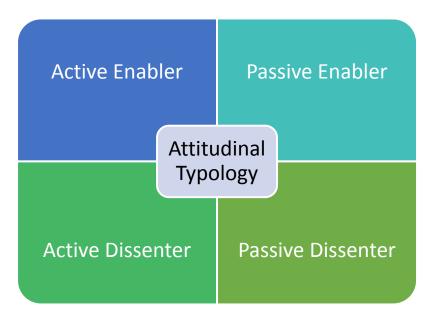


FIGURE 6: Individual typology under a neoliberal regime

I characterize four broad types of individuals in a society ruled by neoliberal institutions as shown in figure 6. While this typology may be common to any institutional regime, I focus on their roles under a neoliberal environment. On the top left quadrant are active enablers, meaning these individuals who possess a high congruence to neoliberal attitudes and exhibit the highest alignment with the institutions in thoughts and actions. Second are the passive enablers who are relatively less aware of social realities and who perceive neoliberalism as the lesser evil or as the only option, thereby coalescing with the mainstream political and economic processes. In the lower right quadrant are the passive dissenters who are more socially conscious and are inclined to engage critically with the institutions, but remain in the margins when it comes to public expression of dissent. In

other words, both passive enablers and passive dissenters are mostly an indistinguishable and volatile mix who constantly react to the changing narratives of mainstream media and engage in fragmented discourses with the institutions yet acknowledge the sanctity of consumption-driven fundamentals of the regime. The fourth type includes active dissenters whose combination of personality, education, experiences and circumstances support a critical awareness about short-term and long-term implications of neoliberal vision thereby such group of individuals are actively incongruent in a typical neoliberal social environment.

The definitions of these groups are evidently broad and multi-dimensional which makes it difficult to measure the groupings with clearly-laid cutoffs. However, since neoliberalism is a political ideology, one dimension of measurement is an individual's selfreported political position in a scale ranging from the 'left' to the 'right'. Given the closer alignment of neoliberal attitudes with the right, political position towards the right may be an increasing function of enabling behavior. Secondly, a person's education level and economic status as indicated by income is the other dimension of enabling behavior. Consumption needs as well as access to information typically increase with education and income, and a greater indirect support to neoliberal ideals may go hand-in-hand with the aspirational qualities of middle-class and upper-class educated groups. The multiplicative combination of socio-economic status and political scale could therefore act as a control variable as well as a key mediator over which attitudinal dimensions may be interacted to measure the support levels to neoliberal ideals and its effects on well-being. For example, I could compute the effects of attitudes on well-being at varying levels of socio-economic status and political position combinations. The size and significance of these effects would represent the pattern of enabling/dissenting behavior that could be tested and compared in relative terms. For these general types of individuals, context and circumstances form additional layers of heterogeneity in the way through which they perceive and interact with the environment therefore affecting their well-being.

Individuals' social attitudes that may support neoliberal institutions are strictly embedded in a heterogeneous set of personal values, phases in life, cultural traditions, socio-economic status, national or regional political and economic history. The nature of interaction between these factors and the above-mentioned attitudes are not easily tractable. However explicitly specifying key dimensions of exogenous variables that control the variance in attitudes is necessary and helpful from both theoretical and empirical standpoints. Following is a discussion on the key contextual influences that affect the relationship between neoliberal attitudes and well-being.

## 3.7 Contextual Influences

#### 3.7.1 Urban Culture

Urban areas, usually the seats of neoliberal institutions, are most intimately connected to the organizational principles and functions of the regime. Socio-economic circumstances of urban living which focus on ever-increasing baselines of consumption create fertile grounds for propagating neoliberal principles and practice. Given the opportunities, pressure and aspirations to consume more resources, individuals in urban areas may align closely with neoliberal economic reforms. Furthermore, urban labor is highly sensitized to the corporate mode of market ethics and a living environment that is rife with commodification of almost all aspects of life. This makes people in urban areas a distinct cross-section to study and compare with other parts of countries.

#### 3.7.2 Foundational Values

Personal values that may or may not be directly influenced by institutions may continue to influence attitudes at a subtler level. For example, personality traits such as extraversion and optimism have been consistent correlates with well-being in several studies. These foundational, relatively more stable values mediate the relationship between institutionalized attitudes and SWB. For example, an aspiration towards greater wealth and success is a mediator in formulating attitudes towards the economy and competition. This basic personality variance needs to be accounted for in order to isolate the components that are largely environment-induced. More details about the generalized personal values is available in the next chapter when I discuss its measurement.

# 3.7.3 Demographics

Many studies find significant difference in SWB between age-groups, marital status, gender and many other variables although there is no causal model of SWB these variables. However, demographic variables such as age may meaningfully relate to the socio-economic attitudes towards neoliberal institutions. As priorities in life change with age, so will the attitudes towards the society. In addition, a person's education and professional occupation may also temper his/her attitude towards neoliberal environment.

#### 3.7.4 Income / Personal Financial Circumstances

Income levels critically determine attitudes towards taxation, wealth accumulation, etc. The struggle to consume or procure basic needs can radically impact the attitudes towards economic policies. Therefore interactions of income with attitudes is another important path within the empirical framework.

## 3.7.5 Macro-economic Environment and History

The level of congruence with the environment crucially depends on the characterization of the individual's socio-economic environment itself. Countries are in various stages of development and have different political and economic histories. The empirical analysis must be sensitive to the regional variation and therefore measure and categorize the macro-economic and macro-political environment when estimating the effects of attitudes.

### 3.8 Research Questions on Individual SWB

The sections above formulated general theoretical relationships between attitudes in a consumption-driven neoliberal society and individual well-being. Based on the characterization of the overarching neoliberal institutional environment, I identified and describe the various dimensions of attitudes that may relate to SWB. I also explained how these hypotheses fit into the existing models of individual well-being. In addition, I outlined the contextual variables that may co-vary with the identified attitudinal dimensions. Based on these contentions, I seek to answer these questions empirically.

- 1. What is the impact of neoliberal attitudinal dimensions on individual well-being? Do greater attitudinal congruence with the consumption ideals of the neoliberal environment bring greater well-being to people?
- 2. How does this relationship vary between urban and rural areas, developed and developing countries and other geo-economic regions? Does urban areas show greater sensitivity to neoliberal attitudes?
- 3. How do these attitudes interact with personal values and socio-economic circumstances of the individual?

The empirical design of the study and methodology is in the next chapter. Following is the description of part 2 of the framework – Consumption Outcomes and Well-Being.

# 3.9 Consumption Outcomes and Well-Being

The previous discussion establishes the background mechanisms of attitudes and values that float in a neoliberal institutional environment. The institutional environment, built on the foundations of neoclassical economic theory, is geared towards maximizing consumption and educating the population to follow this directive and extract well-being from these prescribed activities. Previous studies on SWB (Clark et al. 2008; Lucas et al. 2003) indicate that while people adapt themselves to bad events such as divorce or illhealth and revert to earlier well-being levels, they have greater difficulties in recuperating when they are unemployed. This is very likely an offshoot of the consumption-driven culture that puts a high social and psychological cost on unemployment. Apart from basic insecurity of survival stemming from human predisposition against uncertainty, one is unable to function in a society with self-esteem because self-esteem is now intimately connected with consumption capability. This however may be less so in cultures that are less individualistic where the adverse effects of unemployment is moderated by stronger familial support. The psychological mechanisms of aspiration, adaptation and social comparison through which people derive and adjust their happiness and satisfaction cannot occur independently of the person's local environment that presents them with circumstances. These circumstances, when fitting the aspiration of the people, produce appropriate conditions for contentment with life. In a neoliberal world, aspirations are tightly aligned with consumption and therefore outcomes of consumption as they exist in the local environment may determine the differences in satisfaction levels between regions.



Figure 7 : Dimensions of consumption

These are the faces of a contemporary urban environment through which one positions oneself socially and economically, and the measurement of these dimensions flows directly out of institutional norms for evaluating its own aggregate performance. Following is the discussion of each of these facets.

In order to expand the singular notion of income and improve studies that test the relationship between consumption and well-being, I integrate the various aspects of consumption outcomes and generalize them into universally compatible dimensions. From the empirical literature, I identify and generalize the economic and non-economic correlates of well-being into seven primary dimensions of consumption as shown in figure 3. Contemporary urban society reacts to these dimensions of consumption when evaluating their level of well-being. I develop these dimensions primarily keeping the urban situation

in mind because urban areas under a neoliberal regime present us with a largely homogeneous consumption surface with greater similarity in economic aspirations

# 3.9.1 Consumption Opportunity / Availability

Consumption opportunity is the magnitude and diversity of goods and services available to a person in their local urban area. This includes all the non-feasible and feasible potential choices a person can make to consume. Neoclassical consumer utility theory assumes that a greater number of choices increases utility given that the consumer uses all of their income. The policy push for higher income is a derivative of this assumption. In a materialistic society, having greater consumption opportunities at a social level means a more attractive and engaging space for realizing material aspirations. Cities with greater consumption opportunity may be labeled as ones that have greater environmental amenities. In a broad sense, opportunities themselves should affect SWB positively as they are congruent with neoliberal institutional directives and consumers' aspiration.

# 3.9.2 Consumption Exposure

Consumption exposure indicates the degree to which a person is exposed to available consumption opportunities. One's social class, income, location, occupation and social circles and many other characteristics may determine how much a person is exposed to consumption opportunities. At an individual level, we may also expect people self-selecting the level and quality of exposure based on their personality type. However, a materialistic environment aided by institutions will strive to maximize consumption exposure so that the consumer is inclined and habituated into a consuming culture. At a city level, the exposure is also a method by which a consumer recognizes the environmental amenities that support their consumption habit and aspiration. This also increases the city's

visibility and image at the national, regional and international level. For the consumer, their living environment appears more valuable for current and future consumption possibilities and may drive optimism and aspiration. Under a transnational regime that glorifies the image of a great consumer city with high exposure, I expect higher exposure would send positive signals to an individual about their living environment, therefore positively impacting SWB.

## 3.9.3 Consumption Stimulation

Irrespectively of the level of consumption opportunities and exposure, institutions could also devise direct and indirect policies and methods to stimulate consumption. Stimulating consumption essentially involves easing the physical, mental and financial barriers of the consumer to encourage their participation into a wider range of consumption activities. The credit system, fiscal and monetary policies, tariff regimes and others are essentially macro-policies that stimulate consumers. The existence of favorable financial and social instruments that allow consumers to pursue opportunities normally unattainable because of individual budget constraints may support and reinforce consumption-driven well-being. On the contrary, an urban or regional environment that enacts hostile policies to reduce stimulation may increase the sense of unaffordability and thus limit access to consumption-oriented opportunities that raise one's level of SWB. In a materialistic society, people would be habituated to favorable consumption stimulants and thus higher stimulation would lead to higher well-being.

## 3.9.4 Consumption Power

Of all the various components of consumption, power is one dimension that is most studied in SWB literature. Usually indicated by one's income and assets, consumption power measures the capacity of a person to consume. A person's absolute income allows them to judge the quantity and quality of opportunities to pursue and achieve. In addition to income, one's social status, education, occupation and other cultural attributes may also indirectly support the individual with 'soft' power that enhances the capacity and quality of consumption.

Most studies analyzing SWB use income as the sole indicator of consumption power. More surprising - despite the foundations of economic theory in the notion of consumption, most empirical studies in economics still use income and GDP as measures of consumption. Measuring the consumption potential for a given absolute income typically shows a truer picture of the power. This however entails collecting and measuring the prices of commodities and services an individual is likely to consume, and then using income as the denominator to the prices that are enforced by market forces. Consistent with this dissertation's argument that measuring income is inadequate, few recent studies raise this concern by specifying alternate measurements. Nevertheless, one's absolute income or a city's average income features prominently in one's information space, and thus can independently impact the level of well-being, although the underlying relationship can only be brought out by augmented measurements.

## 3.9.5 Consumption Pressure

Consumption pressure is a basic constraint faced by individuals on two broad fronts in a society. 1. Entrenched and intractable market forces that dictate the baselines for survival, 2. Norms and conventions of consumption imposed by social and cultural traditions.

I conceptualize pressure as a constant countervailing force to one's consumption power because the barriers put by the market and society are generally non-malleable. For example, baseline survival needs such as food and housing may reflect pressure as well as power depending on where the individual stands in the economic ladder. Unequal economic growth characteristics typical in urban societies guarantee consumption pressure to a section of population where expenditure on basic necessities put significant opportunity costs on other consumption opportunities and requirements. The pressure due to high prices and materialistic social norms puts pressure on individuals to produce more in order to survive and maintain social reputation. This eventually ripples its way into job insecurity and pressure because of unemployment. The opportunity cost of being unemployed in a city with high consumption pressure may be higher since survival odds are lower. This dimension is especially important in the context of some previous studies on SWB which claim that increase in life satisfaction due to income is not significant beyond the levels that satisfy basic needs such as food and shelter. To ascertain these claims, one needs to explore common baselines that could be measured and compared across urban areas.

Second, the idea of relative income directly loads into the concept of consumption pressure where individuals experience competitive conditions for pursuing consumption opportunities as dictated by a combination of social norms and personal inclinations. Highly competitive consumption environment characterized by dynamic technological changes in living needs keep a sustained consumption pressure that influences SWB derived out of social comparisons of consumption power.

## 3.9.6 Consumption Uncertainty

An environment in which future consumption levels are uncertain is a factor that may independently impact well-being. A common uncertainty appears when increases in prices of goods and services become common, especially when income does not rise proportionately. In economies that depend on neoliberal institutions, inflationary conditions, as previous studies have shown, affects SWB negatively. In effect, when consumption power is uncertain, one may be less sensitive to increases in income because they do not add to the purchasing power.

Another way of looking at consumption uncertainty at an individual level is unemployment and labor conditions. Job insecurities and type of occupation may have differential vulnerabilities to changing macroeconomic conditions therefore creating consumption uncertainty.

### 3.9.7 Consumption Volatility

As a related construct to uncertainty, volatility conceptualizes changing consumption conditions. This may be severe fluctuations in inflation rates or even unstable political conditions that precipitate a lack of direction in economic growth. Consumers like stability in their power to consume and volatile conditions undermine their ability to plan future consumption, thus adding more insecurity that comes from uncertainty. Urban areas located in volatile regions may have a less optimistic view about their location being capable of catering to their consumption needs reliably. Therefore, volatility may also affect SWB negatively.

#### 3.10 Summary

These dimensions form the front-end of individual attitudes and are filters through which consumption-driven well-being is procured in a contemporary urban setting. While

other avenues of happiness and life-satisfaction do exist, sharp increases in the commodification of experiences and physical transformation of urban areas into consumer centers direct us to look into a future where alternative doors of contentment in life cannot be opened without engaging in transactional processes determined by institutions of neoliberalism. This necessitates greater focus on the mechanisms through which these consumption outcomes impact the non-economic parts of life.

The next chapter describes the research design, methodology and analysis of how various facets of neoliberal institutionalized attitudes affect individual and societal SWB.

#### CHAPTER 4: NEOLIBERAL ATTITUDES AND INDIVIDUAL WELL-BEING

To reiterate, the goal of the first part of the empirical analysis is to answer the following research questions:

- 1. What is the impact of neoliberal attitudinal dimensions on individual well-being? Does greater congruence with the macro-environment bring greater well-being?
- 2. How does this relationship vary between urban and rural areas, developed and developing countries and other geo-economic regions? Do urban areas show greater sensitivity to neoliberal attitudes?
- 3. How do these attitudes interact with personal values and socio-economic circumstances of the individual?

The following sections outline the data, measurement, analysis set-up and the quantitative methodology.

#### 4.1 Data

I use the world values survey (WVS) as the primary data source of the study. WVS is the largest extant database of individual-level country surveys on people's values and socio-economic attitudes conducted since 1981. These surveys are conducted in five-year

waves for a cluster of countries. I use the latest wave (wave 6) of WVS for this study and it contains data from 52 countries which were surveyed between 2010 and 2014. Each country undergoes random or cluster-random sampling and I can reliably draw statistical inference. The full list of countries is given in appendix 1.Many observers indicate that institutional neoliberalism started in the 1970s and strengthened through the 1980s. So, the data centered on the years 2010 and 2011 in WVS 6 allow me to gauge the differences in individual well-being as a function of values and attitude ingrained in the population after 40 years of persistent advocacy in neoliberalism around the world. The data of WVS-6<sup>th</sup> wave comes from 52 countries as shown in figure 8 between the years 2010 and 2014.

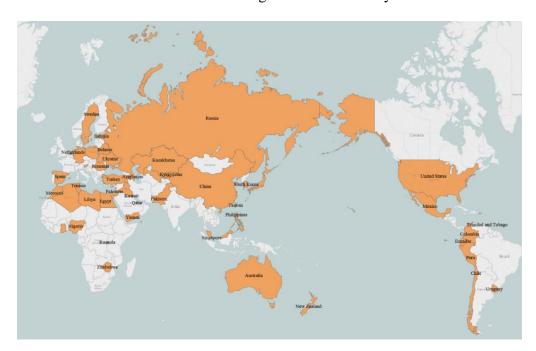


FIGURE 8 : Countries in the Sample

## 4.1.1 Sampling Design

The 52 countries of the WVS 6<sup>th</sup> wave survey conducted between the years 2010 and 2014 are not randomly selected. Their spatial distribution, at the outset, suggests no significant pattern or clustering. However, the choice of countries to be surveyed for the

6<sup>th</sup> wave may have been conditional on several factors. First, countries which had not been previously surveyed are potential targets for data collection so that WVS is further enriched with data from more regions. Secondly, motivation for collecting longitudinal data may be another factor for selecting certain countries for the sixth wave survey. Then, since national entities within each country conduct the survey, resources are another factor. Additionally, given the prominence of researchers who use WVS data in Europe, European countries continue to be studied in greater frequency in successive waves as well. But all these potential sources of bias remain speculations until one determines the exact mix of these factors, thus enabling a future researcher to estimate the magnitude and direction of bias of the selection. In other words, the 52 countries that could potentially be used for this study did not come from a sampling process aimed at inferring about the whole world. Hence the need to review and reconstruct the sampling design.

The first and the easiest strategy to use this sample of countries is to assume randomness. Given the fact that almost one-fourth of World's countries is represented, and also prominent economies of the U.S., China, Russia, and others are included in this sample, this is indeed a tempting option. However, given the prior knowledge about the survey process, this may be too strong an assumption to make. The choice of making this assumption, however, is tied to determining the population I need to infer about. The generalizability of the estimates from this 52-country sample is then tied to another assumption that the world's human diversity is reasonably encompassed within this sample. Given the representation of countries from all regions, and also the fact that all relevant variables in this study have well-developed distributional characteristics, assuming randomness may not be entirely untenable. The defense for this option, overall,

is not very strong because of the need to draw cross-cultural inference and significant populations are left out. Hence, I make corrections.

The strategy to make corrections to the sample starts from a process of estimating how a random sample would have looked like. If I had resources to collect data to infer about the world, I would expect the sample to be representative of various regions. But given the heterogeneity of country sizes and populations, even such a random sampling process is prone to give erratic estimates unless the analysis is replicated by further samples. However, while each of those estimates may lack precision, they will be unbiased. Given the limited samples representing large societies and limited political units representing diverse social, political and economic regions, I make the preference to reduce unbiasedness over efficiency because I have no control over the latter.

In order to correct for sampling bias at the country level, I estimate the probabilities of selecting a country given a certain region. I use the construct 'region' arbitrarily just to ensure representation of various macro-cultural clusters that correlate within regions. Hence to define regions I use the UN's seven-region classification (table 1) used generally for statistical purposes. I calculate the relative frequency of countries within each of these regions which represent the empirical probabilities of countries within the respective regions to be included in a random sample.

Then, I calculate these probabilities for the sample. From table 1, we see that some regions (middle-east) are over-sampled and some (South Asia, Sub-Saharan Africa) are under-sampled. Therefore, I construct weights using the ratio of these proportions so that these could be applied at the country level to correct for sampling bias. While these weights

are vulnerable to change with the definitions of 'regions', weighting ensures greater generalizability and confidence to infer from the estimates.

TABLE 1 : Region sampling weights

	Proportion	Proportion		
	of	of		
	Countries	countries		
	in the	in the	weight_regio	weight_adjuste
Region	world	sample	n	d
East Asia & Pacific	0.172	0.173	0.994	1.155
Europe & Central Asia	0.265	0.346	0.766	0.692
Latin America &				
Caribbean	0.191	0.135	1.417	1.280
Middle East & North				
Africa	0.098	0.231	0.423	0.510
North America	0.014	0.019	0.726	0.656
South Asia	0.037	0.019	1.935	1.749
Sub-Saharan Africa	0.223	0.077	2.902	2.623

Now, at the individual level, weighting is more complex. Since each country independently conducted these surveys, their sampling designs were geared towards inferring about national patterns of values, beliefs and behavior. Many are randomly sampled whereas many others tend to use cluster sampling and sometimes targeted oversampling to ensure greater representation of minority groups. Rural-urban population is another dimension on which potential oversampling takes place within some countries. WVS provides the independently developed individual level weights to correct for these small deviations from the general demographic make-up. So I use these country-specific weights as sampling weights at individual level. A note of caution here is that weighting is an imperfect correctional procedure for bias. While important for inference, the multiple dimensions (age, sex, education) used for weighting could potentially suppress the

important variance of these variables. While I strongly support weighting at the country level, individual level weighting needs further scrutiny. Yet, they represent the best possible solution for reliable inference at this point given my need to analyze across multiple countries.

#### 4.1.2 Missing data

Five countries (Singapore, Jordan, Kuwait, China, Qatar) in the dataset do not have a key variable 'political ideological scale' since the question was not asked; hence these countries are dropped from the analysis. Apart from this, other variables of interest were missing at random. In the absence of patterns in the missing data and given the relatively large size of the sample, I choose to not impute the missing values. Another technical limitation is the inability of using multilevel weights if conducting multiple imputation and subsequent analysis of the imputed dataset. Individual country weights used in WVS adjusts for non-response and violations of distributions and I recalculated the regional sampling weights to adjust for the exclusion of these countries. Other variables have missing values for less than 4% of the sample, and given the large number of observations, I expect the bias to be minimal. But I recognize missing values as a limitation in general, while hoping to implement similar analysis using imputed data when weighting becomes feasible in the software to multiply imputed datasets.

#### 4.2 Measurement

In this section, I describe the variables and their measurement. Details about the variables are available in appendix 2 which lists all the key variables I consider in the analysis.

### 4.2.1 Well-Being

I use two measures for well-being. The primary measure of SWB is the self-reported life satisfaction. On a 1 to 10 scale, people were asked "taking everything together, how satisfied are you with life these days?" - 10 means satisfied and 1 means dissatisfied. Additionally I use the happiness measurement which asks, "taking all things into account, how happy are you these days?" The responses are "very happy, quite happy, not very happy, not at all happy". Consistent with my conceptualization about prudential happiness, I regard life satisfaction as the primary and all-encompassing measure of well-being and hence prefer it as a single measurement to be used in the analysis.

#### 4.2.2 Attitudinal Dimensions

Privatization: Individuals answer the question about their preference about private versus state ownership of business on a scale from 1 to 10 with 1 indicating private ownership and 10 state ownership. Secondly, Individuals answer the question about how confident they are with major companies with responses, "A great deal, quite a lot, not very much, none at all". The combination of these responses indicate the level of favorability to privatization.

Competition: Individuals answer the question whether competition is good or harmful on a 1 to 10 scale with 1 indicating competition is good and 10 competition is harmful. In addition to this measure, I use the question whether hardwork brings success. Individual answers range from the idea 'hardwork brings success in the long run' to 'hardwork doesn't generally brings success". Apart from the neoliberal belief about competition, people may bring in optimism about work as a factor that accentuates this belief. Therefore, I explore both.

Economic Politics: People are asked 'what is the most important priority for the country" and I measure if the first choice is economy. In addition, I measure the individual's level of interest in politics where they respond "very interested, somewhat interested, not very interested, not at all interested".

Wealth distribution: To measure attitudes about wealth distribution, I select the responses for the question for one's opinion about inequality on a scale of 1 to 10 where 1 signifies a preference for incomes to be made equal and 10 as the preference for larger differences in wealth. In addition, I measure the opinion about wealth accumulation. People respond on a 1 to 10 scale with 1 indicating the idea that people can only get rich at the expense of others and 10 where people say wealth can grow so there's enough for everyone. Apart from this, I measure the response for the question, 'In a democracy, state makes people's income equal'. People respond on scale 1 to 10 with 1 indicating, 'not an essential characteristic of democracy' and 10 indicating 'an essential characteristic of democracy'.

Flexible labor markets: A favorable attitude to flexible labor markets can be identified by an individual's opinion about labor unions. I use the level of confidence on labor unions as a measure therefore. People respond to how confident they are on a four-category scale – "A great deal, quite a lot, not very much, none at all".

Fiscal preference: Mainstream neoliberal discourse seeks to moderate opinions about progressive taxation. Therefore I measure fiscal preferences based on the opinion for the statement "In a democracy, government should tax the rich and subsidize the poor". On a 1 to 10 scale, people respond on the one end saying it is not an essential characteristic of democracy, and on the other end saying it is an essential characteristic of democracy. Apart from this measure, I also look at an auxiliary measure that indicates a person's opinion

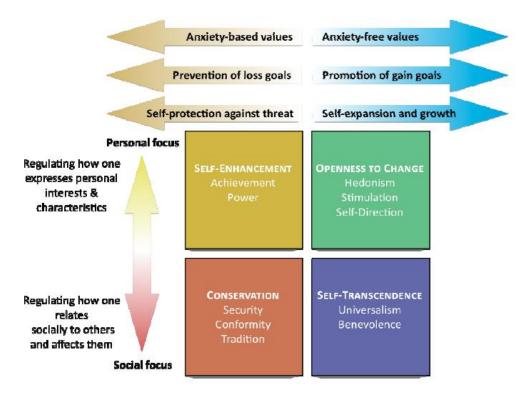
about government responsibility versus individual responsibility. The narrative about taxation is usually aligned with an idea of freedom from government control and having a greater choice (usually to make consumption decisions) based on lower taxes. Therefore, I use the scale from 1 to 10 where 1 indicates individual responsibility and 10 indicates government responsibility.

Freedom and liberty: I use the responses to 'importance of democracy' and 'democrationess of your country' as pointers to the idea of freedom and liberty. I also recognize that people aligning more towards individual responsibility as indicated above can load onto the construct of freedom as defined by the neoliberal ideology.

#### 4.3 Control Variables

#### 4.3.1 Foundational Values

Literature in psychology identifies values as deep-seated constructs that drive the attitudes and behavior. Therefore I consider a universally consistent set of foundational values as developed by Schwartz (1999). The dimensions of values measured by Schwartz's scale are given in figure 9. The questionnaire of Schwartz value scale is available in the WVS. While Schwartz contends that combinations of multiple dimensions of values affect the attitudes, I turn my focus specifically onto values of self-enhancement since they closely resonate with the neoliberal ideals of never-ending wealth generation and consumption. Self-enhancement includes a person's desire for becoming rich and successful. I include these measurements to test the mediation effect on values as well as control for the variability in these basic personality traits.



Adapted from: Sohwartz, S. H. (2006). Les valeurs de base de la personne: Théorie, meaures et applications [Basic human values: Theory, measurement, and applications]. Revue française de sociologie, 42, 249-288.

FIGURE 9: Schwartz value scale

#### 4.3.2 Demographic Variables

I control for age, gender, education, size of the household and occupation, following the previous studies on individual level SWB. The effect of these covariate on interaction with the attitudes is also a possibility with their specification.

#### 4.3.3 Financial Circumstances

Both well-being and attitudes towards political economy may be tempered by one's financial situation. To identify these effects, I make multiple measurements. First, I use a cross-cultural scale of incomes as measured in the WVS which brings all countries' income into an ordinal scale of ten steps using purchasing power parity calculations on the original

country-specific income brackets. This allows comparison between people in different countries on a broad level. Second, I look at the savings using the question about family savings in the past year. People are asked, 'What's the level of savings in the past year?', and they respond by indicating "Save money', 'just get by', 'spent some savings and borrowed money', 'spent savings and borrowed money'".

Apart from this, I measure two dimensions of possible poverty with the responses to the question about the frequency of this individual/family going without food in the last 12 months, and the frequency of going without cash income.

#### 4.3.4 Political Scale

As mentioned while discussing individual typology, a scale of 1 to 10 is used to measure an individual's position on a political scale that spans from 'Left' (1) to 'Right' (10). This measure, combined with the socio-economic status, indicates the way an individual is predisposed to react to the socio-political environmental conditions.

Each of the constructs I have outlined above could be measured in multiple ways. My inclusion of multiple variables under a single construct is an exploratory effort to see how they relate to each other to satisfy the properties of an empirical model framework. Based on further exploratory analysis, as I describe in the upcoming sections, I choose the variables to be included in the model specification based on the nature of their redundancy or multicollinearity in the data.

#### 4.4 Macro-Contextual Variables

In addition to examining these variables' effects on well-being, the empirical analysis needs a design that detects congruence with the environment. To this end, the sample first needs to be diverse enough to incorporate the various socio-political

environments. WVS data suit this need since countries belonging to all geographical regions are included. Secondly, countries and regions themselves have institutional characteristics that differ from a neoliberal ideal. As much as the eminence of neoliberal institutions around the world, socio-political and economic history of countries produce a diversity of contexts within which individuals evaluate their attitudes to their local political economy. Therefore, the heterogeneity of effects of these variables across geographic and economic regions needs to be allowed by the study.

I use broad parameters to define a geo-economic region based on substantive historical differences in capitalism and international relations structure. To this end, I draw from the World-systems theory (Wallerstein 2000) to select countries from the core, semiperiphery and periphery as shown in figure 10. Core countries historically lead in capitalism and these are places where neoliberal ideas took shape as an extension to sustaining neo-colonialist power structures after the Second World War. Countries in semiperiphery have a history of colonial subjugation but due to political and economic weight aspire to move towards the core by incorporating neoliberal ideals of the core and independently raise institutional mechanisms to deal with its relatively poor populations. Countries in periphery have relatively lesser political power and hence continue to be exploited by the core as well as countries in the Semi-periphery. Today, these regions are euphemistically described in various gradations of human and economic development by institutions such as World Bank and the United Nations. The core countries in Wallerstein's typology are further refined by Arrighi (1991) to introduce the concept of 'organic core'. Since core nations are another term for high-income countries with a colonial historical relationship to the rest of the world, I use this dichotomous classification

to examine how the modeling framework functions under the structural differences of society and economy that exists between these two regions.

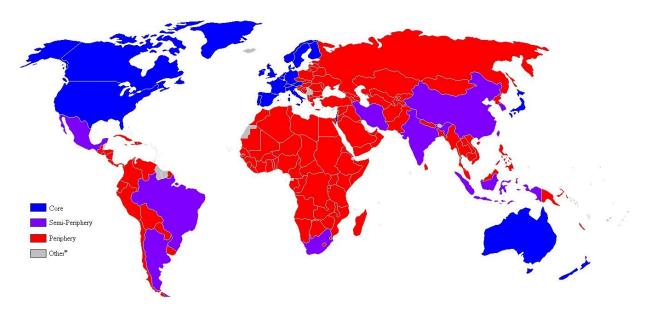


FIGURE 10: World systems hierarchy (Source: Wikipedia –only for illustration)

## 4.5 Analytical Methodology

I implement a flexible method that allows for

- Correlated observations due to similar broader characteristics such as socioeconomic class, country, region etc
- Explicitly model the heterogeneity of effects between higher units of analysis
- Control for heteroskedasticity inherent in regressions with clustered observations
- Explicitly or implicitly allow testing of model performance within and between various macro-social, macroeconomic and macrospatial clusters

To estimate the relationship between attitudinal dimensions, I use a generalized multi-level mixed modeling framework which satisfies these requirements with flexibility for future

research. Given the larger sample sizes (the average sample size for a single country is about 1500), modeling interactions and higher-order effects is also feasible.

Detailed description of operationalization of variables and estimation is available in section 4.7

#### 4.6 Preliminary data explorations

Table 1 includes descriptive statistics of the key variables and I discuss some key highlights of the dataset in this section.

The dataset covers all major continents and regions and includes some important economic regions as well. Figure 11 shows the distribution of SWB across the regions as a percentile. The reds show below average level of life satisfaction and blues are above average values. On a scale from 1 to 10, the average life satisfaction is around 6.8 in the sampled countries.

As we can see from the map, the distribution of SWB is generally heterogeneous with countries from different regions having both high and low means. Many poorer countries (Uzbekistan, Pakistan, Ecuador etc.) are more content than developed economies as well. While countries of Latin America show high averages, there is a cluster of countries in North Africa who are below average in SWB. The relative differences between the country averages are not very wide with the averages ranging from 5.5 to 8.5.

To investigate the between-country differences in SWB across the key dimension of the income scale, I plot the distribution of standardized SWB for each country within each income level in figure 12. The income scale is divided into ten steps with the lowest

TABLE 2 : Descriptive statistics of all key variables

Variable	Mean	Std-Dev	Min	Max
SWB	6.882185	2.225197	1	10
Self Enhancement - Rich	3.228397	1.539364	1	6
Self Enhancement - Success	4.097306	1.458887	1	6
Political Ideology	5.716894	2.336374	1	10
Interest in Politics	2.640829	0.96011	1	4
Competition	7.219555	2.568262	1	10
Private Business	5.418381	2.798321	1	10
Corporations	2.519395	0.864614	1	4
No Progressive Tax	4.762071	2.970406	1	10
More income differences	5.384054	2.950734	1	10
Wealth without Exploitation	6.358501	2.702902	1	10
Individualism	4.510037	2.925749	1	10
Wealth Inequality	5.043038	3.011269	1	10
Employee Union	2.722685	0.884609	1	4
Health	2.922971	0.841063	1	4
Income Level	4.957616	2.064785	1	10
Poverty (Food)	1.546203	0.84751	1	4
Unemployed	0.079886	0.271119	0	1
College Educated	0.27351	0.445763	0	1
Age	41.61522	16.58141	17	98
Female	0.519183	0.499635	0	1
Urban Growth Rate (Centered)	-0.0212	1.72526	-3.1342	5.14001
GDP Growth Rate (2010) (Centered)	0.01414	3.00049	-6.1717	6.14386
Percentage Urbanization (2010) (Centered)	-3.1872	19.2934	-57.24	28.0822

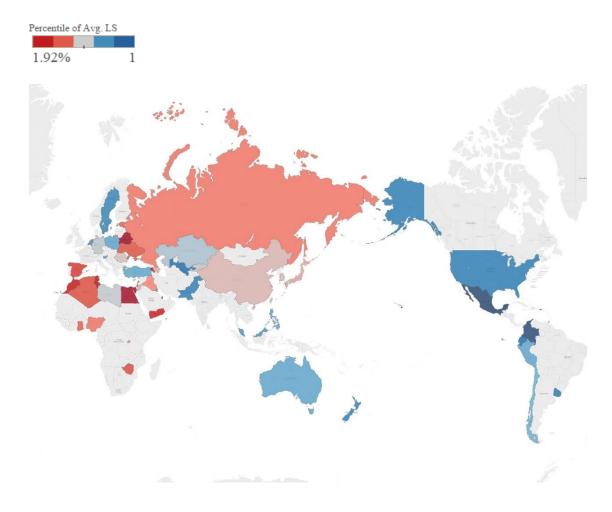


FIGURE 11: Distribution of SWB across the Sample

step representing the country's lowest income group. For each of these income steps, I calculate average SWB for each country and represent them as a boxplot to show the range and distribution of values. Note that SWB is standardized across the sample – so zero represents the global average and positive and negative values are standard deviations from this average. The boxplots' shaded boxes represent the second and third quartiles of SWB at each income level with the line on the center showing the median SWB. A few countries that are labeled in each of the boxplots are selected outliers that have either abnormally high/low SWB for that income level.

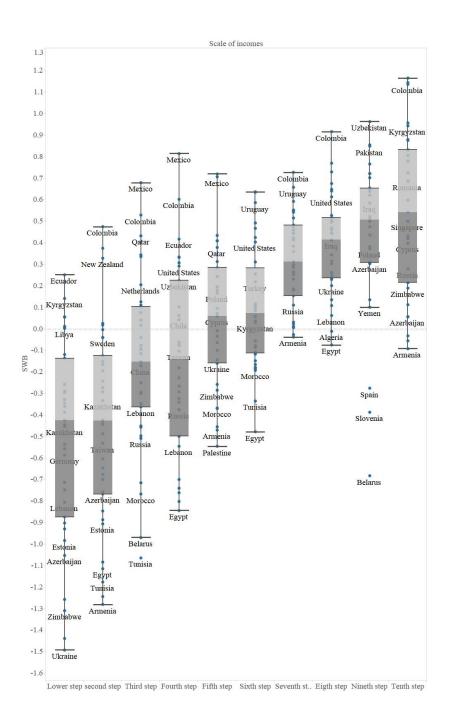


FIGURE 12: Distribution of average SWB across the income scale

One can see wide variations in average SWB within and between income classes. While lower income classes have a median SWB consistently below the global average, starting from the middle income (fifth step) median SWB is at par or above global average.

Starting at 7<sup>th</sup> income step, most countries' average SWB is above the global average. But the between-country heterogeneity of SWB is highly visible in each income class. These patterns indicate the need to accommodate the heterogeneity when analyzing cross-country variations in SWB at both individual and societal levels.

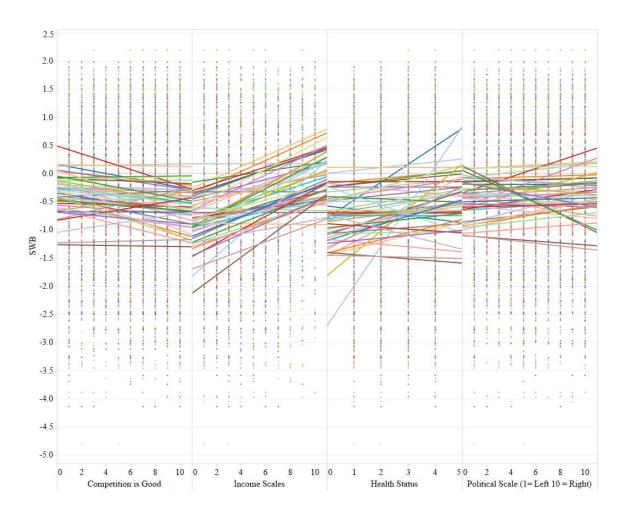


FIGURE 13: Heterogeneity of relationships between SWB and select covariates

Given the strategy to build a multilevel model to account for heterogeneous effects of attitudes, values and other conditions on SWB, I explore how the country slopes look by using the raw data to visualize the variance of SWB conditioned on key variables (Figure 13). I pool all individual observations in the sample and create a scatter plot

between SWB and a few key predictor variables. Then I de-cluster this pooled dataset to represent individual countries' scatterplots superimposed on the same plot area. For each country, I calculate standardized SWB separately in order to represent that country's range of values (unlike the last plot or the subsequent model which uses a single standardized SWB representing the global variation).

I calculate country-wise SWB in order to construct independent slopes and compare the variability in the slopes between these predictors and SWB. So, each line is a country slope for the particular variable in the panel. In the first panel, we see the relationship between competition and SWB whereas in the second, it is income vs SWB. One can observe visible variations in how these variables are related to SWB in different countries. This heterogeneity in slopes warrant a model that accommodates the country level differences in intercepts and slopes. Therefore, a multi-level model with mixed (both fixed and random) effects is the most appropriate technique for this data.

### 4.7 Multilevel Model of Subjective Well-Being

#### 4.7.1 Variables Specification

I analyze the variation of SWB at 2 levels – i) individual level within the countries ii) societal level as approximated by the country-level variables affecting SWB. As outlined in the earlier section about variable measurement, I include the following four variable dimensions in the model. I use the following abbreviations to condense the equations.

#### V – Personal values and ideology

- Self-Enhancement Will/Inclination to be Rich
- Self-Enhancement Will/Inclination to be Successful
- Political Ideological Scale Left to Right

• Interest in Politics

### A – Neoliberal attitudes

- Competition is good vs Competition is harmful
- Private ownership of business versus government ownership
- Confidence about corporations (major companies)
- Confidence about labor unions
- Governments' role in wealth inequality (Opinion about whether democratic governments should make incomes equal)
- Progressive taxation (Whether govt. should tax rich and redistribute to poor)
- Wealth without exploitation (Optimism that wealth could be acquired with externalities)
- Opinion about Income inequality

## E – Objective economic condition

- Income Relative standing on an income distribution scale
- Poverty Frequency of not having food
- Unemployment Status
- Health Status

## D – Demographic variables

- Age
- Education (whether college educated)
- Gender (Female)

## O – Other Intervening variables

- Region Whether belong to the organic core
- Urban Area Whether the individual lives in a town of at least 100,000 people
- Social Class Subjective response to the belonging to a social class (Lower class, working class, lower-middle class, upper-middle class, upper class)

M<sub>c</sub> – Country-level values, attitudes and economic conditions (averages of V, A, E, D and O)

• All country-level averages of the above variables

M<sub>e</sub> – Country-level exogenous variables

- Macro-economic environment GDP growth grate
- Pace of Urbanization Urban growth rate
- Urban Development / level of development percent urbanized population

A few of the variables that were a priori contenders for inclusion in the modeling specification were later excluded for the following reasons. 1. Their variance highly mirrored the variance of a more important variable. For example, the level of savings is another variable that closely matches income, although they point to the material conditions of an individual. Given that I include income and also a measure of food deprivation, this additional variable would be redundant. 2. Collinearity in variables might inflate the variance and mask effects from being detected. 3. These variables would be useful to build latent constructs. However, given the lack of priori literature that examines the impact of interactions of attitudes on the effect of material conditions on well-being, I find it necessary to specify them explicitly so that the nature of individual effects would be clearer. Decisions to re-dimension them using factor analysis may also suppress

unexplained variance and make the latent construct less interpretable given the uncertainty of measurement. My goal here is to draw specific interpretation from each of the identified facets of attitudes conducive to neoliberal ideology and use these results for future improvements to measure composite constructs. Table 3 and Table 4 tabulate the conceptual dimensions of the model and the associated measurements.

### 4.8 Model Specification

The basic equation of the multi-level model is as follows

$$SWB = (V + A + E + D + O) + M_c + M_e + e$$

Let us refer to V, A, E, D, and O generally as X, which vary among i individuals in j countries. Also let W be the vector of country-level variables that vary among countries j. Then the random effects model is written as follows.

For a **null model** without covariates,

Level 1: 
$$Y_{ij} = \beta_{0j} + r_{ij}$$
,

Level 2: 
$$\beta_{0i} = \gamma_{00} + u_{0i}$$
,

### Then for a random intercept model

Level 1: 
$$Y_{ij} = \beta_{0j} + \beta_{1j}(X_{ij} - X_j) + r_{ij}$$

 $X_j$  - average of level 1 variables of country j

Level 2: 
$$\beta_{0j} = \gamma_{00} + \gamma_{01}(W_j - W) + u_{0j}$$
,

$$\beta_{1i}$$
 (fixed slope) =  $\gamma_{10}$ ,

since slopes are not allowed to vary across countries.

W – grand mean of the predictor variables

TABLE 3 : Attitudes & values - concepts and their measurement

Privatization	preference about private versus state ownership of business (1 to 10 with 1 indicating private ownership and 10 state ownership)
	how confident people are with major companies with responses, "A great deal, quite a lot, not very much, none at all".
Competition	whether competition is good or harmful on a 1 to 10 scale with 1 indicating competition is good and 10 competition is harmful.
Economic Politics / Political Interest	level of interest in politics where they respond "very interested, somewhat interested, not very interested, not at all interested"
Wealth Distribution	one's opinion about inequality on a scale of 1 to 10 where 1 signifies a preference for incomes to be made equal and 10 as the preference for larger differences in wealth
	on a 1 to 10 scale with 1 indicating the idea that 'people can only get rich at the expense of others' and 10 where people say 'wealth can grow so there's enough for everyone'
Flexible Labor	level of confidence on labor unions "A great deal, quite a lot, not very much, none at all".
Fiscal Conservatism / Individualism	In a democracy, government should tax the rich and subsidize the poor". On a 1 to 10 scale, 10 -> 'not an essential characteristic of democracy'
	'government responsibility versus individual responsibility'.1 to 10 where 1 indicates government responsibility and 10 indicates individual responsibility .
(Market) Freedom	'importance of democracy' and 'democraticness of your country' (Not Included)

Table 4 Values and Other Variables - Concepts and their Measurement

Foundational Values / Materialism /	an aspiration towards getting rich: Self Enhancement values – Schwartz scale				
Political Ideology	an aspiration towards greater success : Self Enhancement values – Schwartz scale				
	Political pre-disposition – scale 1 to 10 , 1-Left, 10-Right				
Demographics	age				
	gender				
	education - College Educated or Not				
Economic / Financial	Income scale, Ordinal scale with 10 steps of income calculated by country PPP				
Circumstances	frequency of this individual/family going without food in the last 12 months				
	Unemployment - Unemployed or Not				
•	Health Status				
Local/Regional Environment	Social Class - Upper Class, Upper Middle Class, Lower Middle Class, Working Class and Lower Class				
	Urban / Rural area – Size of town variable (100,000 or more)				
	Geo-Economic Region – World systems hierarchy – Organic Core and Periphery				

Combined model: 
$$Y_{ij} = \gamma_{00} + \gamma_{10} (X_{ij} - X_j) + \gamma_{01} (W_j - W) + u_{0j} + r_{ij}$$
 (2)

Now the random slopes model becomes,

When slopes are allowed to vary

$$\beta_{1i} = \gamma_{10} + u_{1i}$$

So, the combined model now changes to

$$Y_{ij} = \gamma_{00} + \gamma_{10} (X_{ij} - X_j) + \gamma_{01} (W_j - W) + u_{0j} + u_{1j} (X_{ij} - X_j) + r_{ij}$$
(3)

Finally, when I add cross-level interactions,

$$Y_{ij} = \gamma_{00} + \gamma_{10} (X_{ij} - X_j) + \gamma_{01} (W_j - W) + \gamma_{11} (X_{ij} - X_j) (W_j - W) + u_{0j} + u_{1j} (X_{ij} - X_j) + r_{ij}$$
 (4)

Combined model: 
$$Y_{ij} = \gamma_{00} + u_{0j} + r_{ij}$$
 (1)

Where  $Y_{ij}$  is the dependent variable of an i individual in j country which varies around the country mean  $\beta_{0j}$  and the within country variance as captured by  $r_{ij}$ 

 $\beta_{0j}$  is the level 1 intercept which is a function of grand mean  $\gamma_{00}$  and its deviation from the grand mean as captured in the random variance  $u_{0j}$ 

So, we have a combined model by substituting for  $\beta_{0i}$  in level 2.

### 4.8.1 Data Transformations

Before conducting the estimations, I make the following transformations.

1. I recode the variables V and A to be consistent with my theoretical framework.

Some variables are in such an order where an increase of one unit indicates movement away from neoliberal attitudes and values. For example, the scale of willingness to be rich

which represents materialism and self-enhancement is originally coded to show lower materialism at its higher values. For convenience of interpretation when dealing with a long list of variable coefficients, I recode attitudinal and value variables (that are originally reverse-coded) so that I may interpret positive coefficients as indication of support to my hypotheses. So, the scale of 'willingness to be rich' is recoded to measure greater willingness at higher values. Similarly, for example, opinions favoring greater income inequality are coded with higher value on the scale. These manipulation also allow easier and consistent interpretation when evaluating their marginal and cross-level effects.

2. I center all individual level variables to their country averages as shown in the equation above. This is known as group-mean centering and is an important transformation that has both theoretical and computational consequences. When each of the variables are centered on their respective country averages, the mean values become zero. So, for example, the propensity to become rich in Algeria, when centered on Algeria's average propensity to be rich, becomes centered on the zero value depicted by that average. So, when we recenter a variable, every country has a zero average to indicate the country means.

This has a direct impact on the mean and correlation structure of the data because this amounts to saying that means do not matter but only the deviations from means are compared across countries. In order to control for the fact that different countries have different means, I then reintroduce the means in the country-level equations. This maneuver results in a pure separation of within-countries effects and between-countries effects in the estimation, thus allowing interpretable cross-level interactions and easier computation of random effects among the countries.

The more important result of centering is that the intercept of the equation now is interpretable as the adjusted mean SWB of a person at the average of all the variables. Many of the variables included in the model lack a meaningful zero. Without centering, both the fixed and random components of intercept may be uninterpretable. The center of almost all of the attitudinal variables indicate an 'average' person having relatively moderate inclinations towards various facets of the socio-economic environment as conceptualized in the theoretical framework. Given the higher density of moderate people in most countries, the centering strategy is appropriate for this study's context.

At the country-level, the reintroduced means (Mc) and other country-level variable (Me) are then centered again by the grand-mean. This makes the intercept the adjusted grand-mean of SWB.

### 4.8.2 Mixed Model Components

The dependent variable SWB is the standardized value of life satisfaction. The predictor variables (V, A, E, D) represent the fixed effects at the individual level. The contextual societal level variables representing the environment, Mc and Me, are also fixed because they only vary between the countries and no higher levels are specified in the model. To account for the fact that different countries may have different mean SWB due to unobserved variables, I introduce the random intercept thus allowing this variation and conducting consistent estimation of lower-order relationships. This is captured by the variance of intercept estimated as a random component. Then, I also expect that the effect of our target variables to vary among different countries due to unobserved factors. This heterogeneity is accounted for by constructing random slopes. When I allow these random slopes in the equation for the V, A and E variables, the variations are captured by their

respective variances/std. deviations in the random part of the equation. The unexplained variance in SWB not captured by the fixed parts of the model is estimated as the residual variance.

To summarize, following are the variance components estimated in the model

- 1. Fixed individual level effects on individual SWB  $\gamma_{10}$
- 2. Fixed societal level effects on average SWB γ<sub>01</sub>
- 3. Random Intercepts that capture variance in SWB among societies  $u_{0i}$
- 4. Random slopes that capture variance in the individual level effects between societies  $u_{1i}$
- 5. Residual variance of individual level model  $r_{ij}$

In addition to these models, I then use a more elaborate model specification to estimate the cross-level interactions as shown in equation 4 above. That is, the effect of societal level factors moderating the effect of individual attributes. In other words, the specific moderating effect of societies which otherwise are generally estimated by the random slope variances.

#### 4.9 Model Estimation

I fit four models in succession, noticing and comparing the estimation parameters in each step. Table 3 shows the model estimates for the base specifications. Parameters that are statistically significant at 0.05 and 0.1 levels are color-shaded pink and yellow, respectively. To begin, I fit the null model – the model without any covariates but with random intercepts. The second panel shows the random intercept model with all the variables entering the equation as fixed variables. In other words, all countries share the

coefficients. In the third panel, I relax this assumption on selected key variables whose random slope variance is estimated and displayed as standard deviations in the bottom of the table. The fourth model in the panel is the random slopes specification combined with a list of cross-level interaction components. Interpretation of parameter estimates follows in the next section.

TABLE 5 – Parameter estimates of SWB Models (pink shade – stat.sig at .05 level, yellow shade - stat.sig at .1 level)

					Random
			Random		Slopes
			Intercept	Random	with
CILID	** ' 11 ' 5' ' '	N. 11	Fixed	Intercepts	Interaction
SWB	Variable Dimensions	Null	Slope	and Slopes	S
	Self Enhancement -		-0.00564	-0.00815	-0.00837
	Rich		0.01021	0.01017	0.01015
			0.58050	0.42280	0.40970
	Self Enhancement -		0.01341	0.01253	0.01246
	Success		0.00780	0.00750	0.00748
<b>\</b> \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Success		0.08570	0.09490	0.09590
			0.02962	0.02836	0.02371
•	Political Ideology		0.00802	0.00696	0.00493
			0.00020	0.00000	0.00000
			0.00275	0.00741	0.00756
	Interest in Politics		0.01147	0.01060	0.01057
			0.81070	0.48460	0.47450
	Competition		0.00966	0.01085	0.01014
			0.00714	0.00551	0.00466
			0.17630	0.04890	0.02950
			0.00404	0.00274	0.00274
	Private Business		0.00436	0.00355	0.00352
<b>A</b>			0.35480	0.44040	0.43590
$oldsymbol{\Delta}$			0.02806	0.03099	0.03131
1 1	Corporations		0.01696	0.01607	0.01605
			0.09810	0.05380	0.05110
			0.00293	0.00261	0.00272
	No Progressive Tax		0.00367	0.00341	0.00340
			0.42500	0.44430	0.42310
			-0.01435	-0.01476	-0.01474

	More Income Differences			
	Wealth without Exploitation			
	Individualism			
	Wealth Inequality			
	Employee Union			
	Health			
E	Income Level			
	Poverty (Food)			
	Unemployed			
	College Educated			
D	Age			
	Female			
<b>Society Level</b>				
zonej zo, u	Self Enhancement - Rich			

0.00563	0.00576	0.00576
0.01070	0.01040	0.01040
0.02695	0.02330	0.02203
0.00486	0.00404	0.00335
0.00000	0.00000	0.00000
0.01087	0.01319	0.01326
0.00380	0.00326	0.00299
0.00430	0.00010	0.00000
0.00188	0.00464	0.00472
0.00457	0.00389	0.00389
0.68080	0.23260	0.22410
-0.02340	-0.01947	-0.01905
0.01628	0.01650	0.01667
0.15060	0.23810	0.25310
0.27203	0.27025	0.27055
0.01556	0.01376	0.01362
0.00000	0.00000	0.00000
0.08704	0.08715	0.08735
0.00748	0.00733	0.00680
0.00000	0.00000	0.00000
-0.10350	-0.09820	-0.09817
0.01732	0.01652	0.01635
0.00000	0.00000	0.00000
-0.04851	-0.04122	-0.04112
0.02277	0.02165	0.02183
0.03310	0.05700	0.05960
-0.01100	-0.00281	-0.00273
0.01505	0.01475	0.01475
0.46490	0.84910	0.85310
0.00136	0.00154	0.00155
0.00070	0.00073	0.00073
0.05240	0.03410	0.03320
0.05589	0.05645	0.05641
0.02031	0.01991	0.01993
0.00590	0.00460	0.00460
-0.37404	-0.37202	-0.37258
0.07445	0.07381	0.07378
0.00000	0.00000	0.00000
0.12762	0.13405	0.13346

Political Ideology  Interest in Politics  Competition  Private Business  Corporations  No Progressive Tax  More income differences  Wealth without Exploitation  Individualism  Wealth Inequality  Employee Union  Health  Income Level		Self Enhancement - Success
Competition  Private Business  Corporations  No Progressive Tax  More income differences  Wealth without Exploitation  Individualism  Wealth Inequality  Employee Union  Health		Political Ideology
Private Business  Corporations  No Progressive Tax  More income differences  Wealth without Exploitation  Individualism  Wealth Inequality  Employee Union  Health		Interest in Politics
Corporations  No Progressive Tax  More income differences  Wealth without Exploitation  Individualism  Wealth Inequality  Employee Union  Health		Competition
No Progressive Tax  More income differences  Wealth without Exploitation  Individualism  Wealth Inequality  Employee Union  Health		Private Business
More income differences  Wealth without Exploitation  Individualism  Wealth Inequality  Employee Union  Health		Corporations
Wealth without Exploitation  Individualism  Wealth Inequality  Employee Union  Health	V	No Progressive Tax
Exploitation  Individualism  Wealth Inequality  Employee Union  Health	C	
Wealth Inequality  Employee Union  Health		
Employee Union  Health		Individualism
Health		Wealth Inequality
		Employee Union
Income Level		Health
		Income Level

0.05464	0.05430	0.05431
0.01950	0.01360	0.01400
0.15837	0.16250	0.16175
0.04558	0.04627	0.04623
0.00050	0.00040	0.00050
0.19113	0.19878	0.19774
0.12440	0.12500	0.12495
0.12440	0.11180	0.11350
-0.20735	-0.21045	-0.21085
0.02726	0.02670	0.02661
0.00000	0.00000	0.00000
-0.06247	-0.06209	-0.06244
0.03594	0.03592	0.03591
0.08220	0.08390	0.08210
0.07492	0.07074	0.07087
0.10681	0.10795	0.10803
0.48300	0.51230	0.51180
0.00127	0.00345	0.00332
0.01324	0.01323	0.01325
0.92340	0.79400	0.80240
0.07207	0.07527	0.07576
0.02196	0.02241	0.02253
0.00100	0.00080	0.00080
0.05671	0.05806	0.05789
0.03623	0.03591	0.03583
0.11750	0.10590	0.10620
0.11693	0.11491	0.11502
0.01705	0.01743	0.01741
0.00000	0.00000	0.00000
-0.15703	-0.15744	-0.15733
0.02434	0.02445	0.02449
0.00000	0.00000	0.00000
-0.00897	-0.01066	-0.01023
0.17050	0.17217	0.17184
0.95800	0.95070	0.95250
0.10074	0.10680	0.10340
0.06502	0.06583	0.06604
0.12130	0.10470	0.11740
-0.29876	-0.29601	-0.29780
0.06213	0.06241	0.06243

1	İ.	1			
			0.00000	0.00000	0.00000
	Poverty (Food)		0.08430	0.08647	0.08709
			0.02284	0.02326	0.02317
		-	0.00020	0.00020	0.00020
	Unemployed		0.61327	0.60867	0.61717
	Chempioyed		0.20157	0.20271	0.20300
			0.00230	0.00270	0.00240
	College Educated		-0.02261	-0.03544	-0.03713
	Conege Educated		0.12403	0.12557	0.12523
			0.85540	0.77770	0.76690
	Age		-0.01320	-0.01171	-0.01187
	rigo		0.00698	0.00706	0.00706
		-	0.05850	0.09730	0.09240
	Female		-0.95728	-0.96238	-0.95863
	Tomaro		0.48071	0.48355	0.48249
		-	0.04640	0.04660	0.04690
	Urban Growth Rate		0.05896	0.05904	0.05954
7 /			0.01633	0.01594	0.01603
M	GDP Growth	-	0.00030	0.00020	0.00020
			0.00078	0.00174	0.00175
			0.00729	0.00726	0.00725
	Percentage Urbanization		0.91490	0.81110	0.80970
e			-0.00290	-0.00287	-0.00287
		0.00153	0.00153	0.00153	
			0.05880	0.06180	0.06170
					0.01745
					0.01743
	Income x Average Comptetiton				0.00802
	Completition				0.03021
	, A				0.03021
Cross-Level	Income x Average Inclination to be rich				0.01170
Interactions	memation to be field				-0.00766
	To a successive to the success				0.00506
	Income x Urban Growth Rate				0.13050
	Growth Rute				0.00216
	***				
	Ideology x Urban Growth Rate				0.00358 0.54580
	Olowill Rate	-			-0.01008
		J			-0.01008

				•
Wealth Optimism x				0.00565
Average Competition				0.07450
				0.03920
				0.01526
Ideology x Poverty				0.01020
				-0.00117
Individualism x Urban				0.00290
Growth Rate				0.68700
				0.00385
Wealth Optimism x				0.00122
Urban Growth Rate				0.00150
To dividualians or				0.00308
Individualism x Average Inclination to				0.00425
be rich				0.46870
				0.00897
Competition x Average				0.00481
Inclination to be rich				0.06220
Intercept / Adjusted	-0.01694	-0.01642	-0.01531	-0.01532
SWB	0.05429	0.01479	0.01477	0.01475
No of Observations	46,976			
No of Groups	52	47	47	47
Log Pseudo Likelihood	-85621.11	-58356.89	-57891.93	-57872.04
SD Cons (Estimate)	0.34208	0.07265	0.07295	0.07281
SD Inc			0.04550	0.03944
SD Pol Scale			0.03138	0.02538
SD Wealth			0.02052	0.01826
SD Ind			0.01260	0.01257
SD Comp			0.02249	0.02087
SD Residual (Estimate)	0.90599	0.82237	0.81106	0.81107
Var Residual	0.02002	0.67.600	0.65500	0.45503
(Estimate)	0.82082	0.67629	0.65782	0.65783
AIC	171,248.2 0	116,805.8 0	115,885.9	115,866.10
•	171,275.7	117,208.6	116,332.5	112,000.10
BIC	0	0	0	116,400.30

# 4.9.1 Parameter estimates

The sharp change in the log-likelihood indicates a significant improvement of the model specification compared to the baseline null model. Residual variance dropped from 0.8268 to 0.6578, indicating the explanatory power of the model. R-square statistics in multilevel model are not accurate because of the random variance components. The pseudo R<sup>2</sup> that indicates the additional variance explained by the random slopes model over the null is at 20%, and with an absolute R<sup>2</sup> at around 33%. But this does not take into account of stochastic components of the model. Also notable is the sharp reduction of standard deviation of the random intercept in the full models compared to the null model. The degree of heterogeneity in the mean SWB in various societies is effectively captured by the specified societal-level variables thus reducing the standard deviation of the intercept from 0.34 to 0.0725. This remains consistent across the successive specifications. Interpreting the estimates of variables is not straightforward for two reasons. 1. Variables have different scaling. For example, inclination to be rich is at 6-point scale, whereas income is at 10-point scale. This means the coefficients cannot be directly compared. 2. Many of the variable scales are not yet popular, hence the difference in units may not be easily perceivable. For example, what does one unit increase favoring competition really mean? While such issues are common when abstract ideas are quantified on arbitrary scales, the raw estimates on a regression will remain somewhat difficult to interpret given the subjectivity of the reader and the construct. Such limitations apart, we can still interpret many aspects of these estimates. The statistical significance gives a clear indication whether there is a signal or pattern in a certain direction. Comparing variables who share the same scaling, while clumsy, is still possible. Average effects at the level of society are

more interpretable as well. Following is the detailed discussion about my model-based insights regarding the research questions.

4.10 Does individual attitudes and personal values matter to one's well-being?

The short answer is a 'yes'. As revealed by the parameter estimates, for a given country, a person's values, ideology and several attitudes about the socio-economic macro-environment have statistically significant relationships to the outcomes of happiness and satisfaction in life.

A greater inclination towards success positively affects SWB. An ideology that leans towards the right side of the political spectrum also has positive impact on individual SWB. Individuals who tend to think that competition is good are more satisfied than those who think competition is harmful. Being a pivotal institutionalized attitude propagated by neoliberalism, the positive coefficient of competition on SWB supports my congruence hypothesis. An individual who feels competition is good extracts greater well-being in a society whose dominant narrative also hinges on economic Darwinism and market competition. Competition interacts with other variables to produce separate effects on SWB (discussed later in the section). On average, a unit increase in favoring competition on a 10-point scale increases SWB by 0.03 standard deviations. As mentioned earlier, the numbers sound low because of how SWB is scaled. The entire range of SWB is now fit within 2 standard deviations from the mean of zero. Apart from this marginal effect, the slope of competition on SWB varies among different societies as revealed by the statistically significant random slope coefficient.

Before interpreting other attitudinal variables, let us look at another central variable concerning SWB in a consumption-driven society – income. As expected, a higher income

relative to the average results in a higher well-being. The positive income effect is consistent with many previous cross-sectional studies. When a country's income is inflation-adjusted and rescaled into a 10-point scale, a one-point increase in income level results in an increases SWB by about 0.09 standard deviations from the global average. The estimate on income gives a reasonable reference to compare other effects. The effect of income also varies between societies as indicated by the random slope's standard deviation of around 0.04. 95% of all countries have a slope of between 0.01 to 0.16 standard-deviations of SWB for a unit change in income level on this 10-point scale.

As I observe this wide variability among societies in the world on the relative income effect on well-being, I investigate further with another model specification. This specification includes income as a random slope but excludes all other attitudinal random slopes and specifies an unstructured covariance matrix of random effects. The unstructured matrix allows estimating the covariance between slope and intercept as an additional parameter. The covariance of random slope with the intercept is negative (-0.31) but statistically not significant (95% confidence intervals are -0.88 and 0.63). Therefore, I find no evidence of the income effect reducing at higher SWB levels for individuals. But the large confidence interval implies that the effect is too heterogeneous – indicating that potentially some subpopulations may exhibit a positive effect and some others a negative one. I don't investigate this further since the income-SWB effect that may be compared with previous literature is at the aggregate level (I analyze this in chapter 5).

The current baseline specifications in the table assumes an independent covariance structure which assumes that the covariances of the slopes are zero. The reason for this choice are three. 1. An unstructured covariance matrix computes covariances between each

pairs of observations and thus is computationally intensive. The complexity grows exponentially with every additional random slope. 2. The clusters are unbalanced thus making it difficult for the model to converge even without specification errors 3. I tried the full random slopes model with an unstructured covariance matrix on a more parsimonious specification and found that the covariance of random slopes are not statistically significant. So it is safe to assume independent covariance structure for further specifications.

Continuing with more attitudinal effects on well-being, I observe that having greater confidence in major companies and corporations is associated with higher SWB. This is again consistent with the values propagated under institutional neoliberalism – corporations, despite the well-documented criticism, function as the main engine of employment and as symbols of economic/general well-being. This effect shows that higher optimism about the role of major companies is linked to higher SWB.

Another striking positive effect is the statistically significant positive effect for 'wealth optimism' – a feeling about abundance of wealth or of unlimited growth potential – on SWB. On the other end of this scale is the feeling that wealth cannot be generated without seizing it for someone else – in economic terms, that the resources are scarce and any attempts gaining a greater share of the pie means imposing an opportunity cost on someone else. This optimism about wealth abundance, while possibly driven by multiple factors, is a sign of insularity or lack of awareness of the inequities caused during the neoliberal growth process. Maintaining such an attitude also may result in lower sensitivity to popular struggles against inequality and allied issues, especially when one is unaware that the beneficiaries of growth are created by potential suppression and redirection of

economic opportunities elsewhere. The narrative of abundance and unlimited growth is central to neoliberal ideology especially in developed economies, and I hypothesize that this individual attitude inadvertently adds reinforcement to the ideological propagation. So, the positive effect is another sign of congruence. However, I do not discount the equally valid altruistic and pacifistic motives behind harboring an optimistic attitude towards resources. I must remind the reader here that beyond these brief discussions, motivation behind the attitudes I label as 'neoliberal' is beyond the scope of this research. The signals obtained through these models will warrant further investigation on deeper study into these attitudes. To summarize, another facet of neoliberal narrative is associated with higher level of well-being.

Yet another important attitude that supports congruence is individualism as measured by asking whether an individual should be responsible or the government. Similar to 'wealth optimism', individualism in itself is not a quintessential neoliberal attitude but greater individualism as documented in the earlier chapters as a significant aid in attuning to the neoliberal growth narrative, market competition and self-enhancement. The effect, as indicated by the coefficient, is relatively small, but statistically significant.

Apart from these dimensions of neoliberal attitudes, an individual's support for lesser government role in reducing inequality affects well-being negatively. At individual level, this runs contrary to the hypothesis of congruence. Also, a favorable attitude towards private businesses, or larger differences in income or the individual inclination to be rich does not affect individual well-being as indicated by their statistically insignificant coefficients. Interest in politics has no effect on SWB. So is the effect of favorability of labor unions. However, two more layers of estimation remain to be

reported: Societal level effects and the cross-level interactions of these individual attitudes on the social environment.

Of the other control variables, many are statistically significant indicating a well-specified model. Health status appears to have a big effect on well-being. Although measured on a four-point scale, a unit change in health level increases SWB by around 0.27 standard deviations from global average. Similarly, an individual's poverty level, indicated by the frequency of having no food, has a large negative impact on well-being. Also, consistent with the previous literature, unemployment has a negative effect on SWB. Females are more satisfied and happier than males and older individuals have higher well-being.

4.11 How does SWB vary among societies based on people's collective values and attitudes?

All the individual level attitudes within societies are estimates of societal attitudinal patterns when aggregated. So the level-2 variables, representing country-level means of the centered individual variables allows for direct interpretation of parameter estimates as they affect the average SWB of a society (country).

A greater inclination towards getting rich is a marker of materialism that pervades neoliberal societies. While an individual's favorable attitude towards getting rich seems to have no effect on their SWB, materialistic societies have a collective sharp negative impact on the average SWB of countries. A unit change in average inclination to be rich decreases satisfaction with life by about 0.37 standard deviations. As a comparison, a unit increase in the average relative income level of a country increases SWB by only 0.09

standard deviations. Contrasting the self enhancement value of getting rich, a value favoring success increases SWB.

Consistent with the individual-level effect, a political ideology towards the right increases average SWB by 0.17 standard deviations – extending the pattern of conformity. However, I see friction when it comes to the effect of competition on social well-being. As society tends to favor more competition, the average SWB drops by about 0.21 standard deviations for a unit increase. Contrary to the narrative and ideology revolving around the neoliberal social model, the negative effect of competition on aggregate well-being would find support from the critical literature of political economy. Also emerging in the estimates is that SWB decreases as societies tend to favor more private ownership of businesses. Individualism again shows consistent pattern at the societal level with a positive impact on average SWB.

Apart from the means generated from the individual level, I control for the developmental stage of country by adding 'percentage of urbanization' which has a weak but statistically significant negative relationship to SWB. Apart from this, two macroeconomic growth indicators are included in the specification – urban growth rate and GDP growth rate. While GDP growth rate has no impact on SWB, urban growth rate has a strong statistically significant positive effect on well-being. Urban growth rate captures the characteristic evolution of neoliberal ideology with increasing resource concentration within cities that houses the institutional entities determining policy and public discourse. The positive impact of increasing growth rate indicates a strong consumption-powered mechanism of increasing SWB. Optimism about economy and future abounds as indicators of rapid urbanization are reported along with faster growth. In many

developing countries, this is linked to increasing foreign institutional investment inflow and greater resource flow out of the emerging neoliberal countries. The detectable effect of urban growth rate is another facet of congruence and linkage of SWB to the dominant socio-economic paradigm.

In summary, the effects generally show a reasonable amount of support to the idea that individuals are more satisfied when they are congruent with the environment. But there is dissonance between the individual inclinations as revealed by the within-country effects and social outcomes as shown by the aggregate between-country effects. This is indeed the dissonance I began to gather anecdotally before pursuing this study and data now reinforces this idea. While socially, we accept the ills of materialism to lowered satisfaction with life, yet we see greater personal satisfaction by being more harmonious to the environment. And today's macroenvironment is determined largely by the parameters I discussed in chapter 3. The fact that attitudes and values that tend to nurture neoliberalism at an aggregate level affect societies' life satisfaction negatively. Yet, within those societies, individuals who are more congruent with these values may be relatively better off, as revealed by the estimates.

While these results are relatively basic indicators of the support for my hypothesis, I investigate further on how some of these attitudes and values interact with objective material conditions. The cross-level interaction components of the model goes to the heart of this exploration.

4.12 Are the effects of material conditions moderated by societies' values and attitudes?

The estimates of interaction effects shows several statistically significant effects

(table 3) which indicate how the prevailing social environment and its psyche affect the

effects of material conditions on individual well-being. Interactions are hard to interpret on continuous variables – they signify the change in slope of one variable with the change in another variable. So, I visualize the interaction effects using marginal effects of specific covariates involved in interactions. In the following sections, I present selected important results that strengthen the support for my hypothesis. In this section, I show five motifs of interactions between individual values, material conditions and societal level attitudes and the macro-social environment.

### 4.12.1 Motif 1 - Poverty, Ideology and SWB

Political ideology towards the left of the spectrum is characterized by dissent to the economic and social status quo under the neoliberal paradigm. As a corollary, the right side of political values are seen as supportive. So, according to my congruence hypothesis, those who stay on the right are more congruent and hence have higher mean SWB. Figure 14 shows how the SWB changes as poverty increases in a society. Poverty is measured from the sample in terms of the frequency of people who reported to have had difficulty in obtaining food. As we can see, poverty in the society has a negative impact on SWB. Controlling for all other variables in the model, we see the marginal effects of poverty for three distinct individual ideological positions. Zero represent the mean rate of poverty reported in the sample.

Negative values of the X-axis indicate lesser instances of people having difficulty to get food. As one can see, individuals on the political left have a higher well-being in societies with lower poverty. But as the poverty increases, SWB comes down sharply. On the other hand, individuals who I consider as enablers of neoliberal ideology start with lower well-being in low poverty regions but end up more satisfied with life in societies

which have more people struggling for food. Income inequality has been a prominent issue globally for which the contemporary capitalism is blamed. Here we see that societies with greater food deprivation, whether rich or poor, seem to foster greater well-being for those individuals who conform to the political right that continue to advocate the principles which are generally criticized for causing deprivation. And those who dissent seem to be highly sensitive to growing deprivation.

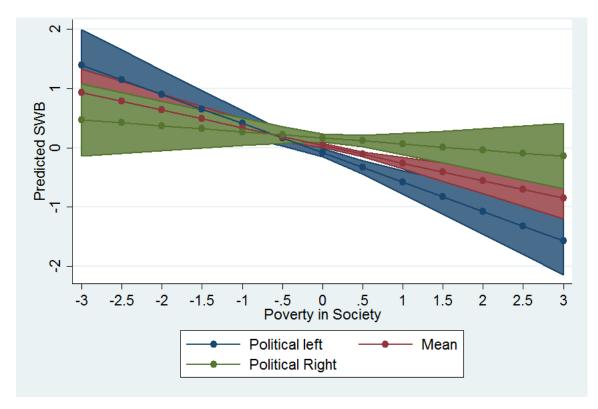


FIGURE 14: Poverty vs ideology on SWB

# 4.12.2 Motif 2 - Materialism, Income and SWB

From the main effects of the model, I see that as the inclination to become rich goes up in the society, satisfaction with life decreases. But is the decrease equitable across the various economic classes? Figure 15 reveals the marginal effects of

materialism (as measured by the average level of willingness to get rich) on SWB for three distinct income groups. For highest incomes, the reduction is the lowest, whereas for the lowest income group, a significantly sharper decrease in SWB happens as the society's materialistic tendencies increase. The more striking part of the finding is that for societies that are least materialistic, SWB tend to be more or less equal for everyone regardless of their relative economic position in the society.

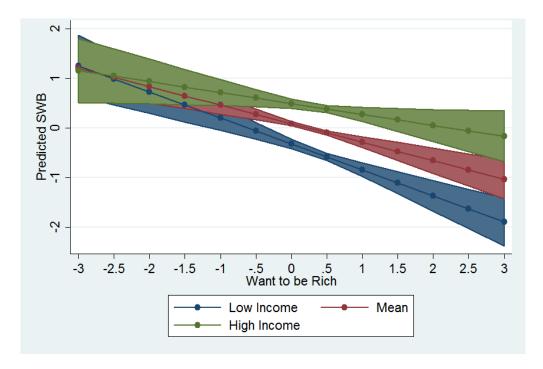


FIGURE 15: Materialism vs income levels on SWB

The argument that more egalitarian societies produce greater harmony of wellbeing among various classes find support in this extrapolation of marginal effects.

# 4.12.3 Motif 3 - Competition, Income levels and SWB

'Income drives up SWB' – this has been a consistent narrative of the previous literature on SWB. But do social attitudes favoring greater competition moderate this effect? Figure 16 representing the marginal effect of competition in society on SWB for

three distinct income groups. As revealed by the main effects, SWB decreases as societies become more competitive. But this general reduction disproportionately affects people with low income than with high incomes as the steeper slope of interaction shows.

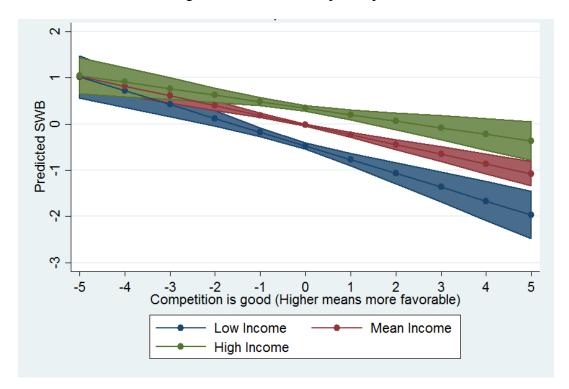


FIGURE 16: Competition, income and SWB

But as more people say that competition is harmful, SWB converges between the low, middle and high income groups.

The pivotal neoliberal idea that competition is essential for growth has a differential income effect on SWB with the effect being most detrimental to lowest income groups.

# 4.12.4 Motif 4 - Urban growth, Wealth distribution and SWB

The rate of urban growth and the ills surrounding income inequality and regressive wealth redistribution is well-documented in the literature. Sustaining optimism in the face of growing inequities, as I argue, is another enabling attitude for maintaining the neoliberal

status quo. On the contrary, maintaining the idea that there are externalities to personal economic growth is an attitude that potentially promotes further awareness of the changing socio-economic realities with intensifying urbanization. From the model, we see that faster urbanization are linked to higher well-being.

But the increase in well-being, as shown in figure 17, is the greatest for those who are optimistic about wealth distribution. For those who think that wealth gain involves losses to others do not gain as much life satisfaction from societies which has rapidly growing cities. Again for societies with significantly lower than average urban growth rate, they have lower-than average life satisfaction, yet those are equally distributed among the groups.

# 4.12.5 Motif 5 - Competition, Materialism and SWB

Another important dimension of interaction is how growing materialism and its effect on well-being is affected by an individual's attitude towards competition. I find that interaction effect (figure 18) not statistically significant as the confidence intervals tend to overlap each other. Regardless of one's level of favorability for competition, the decline of SWB due to materialism in the society is of similar magnitude.

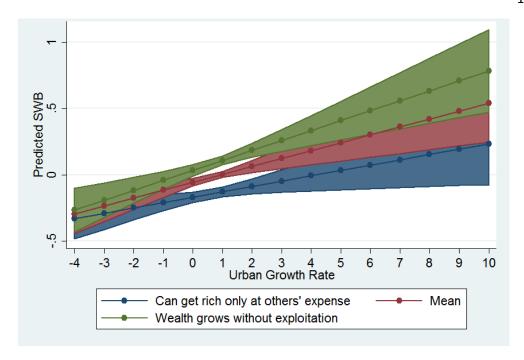


FIGURE 17: Urban growth and wealth optimism

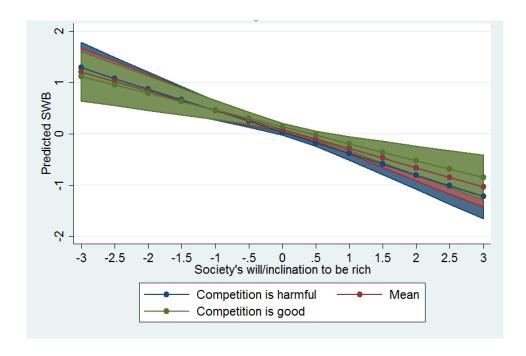


FIGURE 18: Competition, materialism and SWB

### 4.13 Summary

The examination of main effects and interaction effects generally supports the hypotheses that one's values, attitudes and beliefs matter to one's happiness and satisfaction independently of one's material conditions and other factors. Second, the collective beliefs in the society also affect its overall SWB as well. The world's currently dominant socioeconomic paradigm is founded on neoliberal principles and most countries are at various stages and levels of its adoption. In this macro-environment, I observe that individuals who favor the status quo are more satisfied than those who are not congruent with the ideals of dominant political interest groups. The interactions of values, ideology and attitudes with income and macro-indicators of growth supports these assertions. The motivation for these attitudes can be highly varied and many would be unobserved in the model, as revealed by statistically significant random slopes for some of these attitudes across the countries. But broad lines of relationship as established by statistically significant fixed effects both at individual and societal levels warrants further study on why and how cross-cultural variations in attitudes produce such outcomes of happiness and life satisfaction in individuals.

My analysis until this point has not discuss whether nor to what extent this model's representation of reality is reliable across the various important geo-economic and social groupings that exist commonly within and between regions. The next section extends the model further to incorporate these important dimensions.

4.14 Urban, Regional and Social clusters of Well-Being – Measuring Heteroskedastic Error Variance

#### 4.14.1 Social Classes and SWB

This part of the analysis answers questions about urban-rural differences and macro-regional differences in SWB as it fits the overall model specification at individual and societal levels. Urban-rural differences and regional differences are specific differences in social classes and social structures organized in spaces. The artificial reality of relationships superimposed by the model on the individual level data is a prime reference platform to see how it fits the realities of various social classes. The approximation of societies into countries may or may not fit the reality depending on the size and heterogeneity of countries. However, social classes remain a uniform feature within countries at all stages of development, and hence may be a more stable dimension to compare the model parameters.

The respondent self-identified social class includes five-levels – lower class, working class, lower-middle class, upper-middle class, and upper class. Class consciousness may not be explicit or visible in some societies, yet literature provides ample evidence for self-selection by individuals to fit within groups they have closer socioeconomic affinity with. The attitudes towards socio-economy are then conditioned by popular discourse catering to these social classes – this may result in clustering of parameters around the various social classes.

Many approaches exist to incorporate social classes into the model. Direct interaction effects may induce too many interaction effects which may be collinear, thus affecting the estimation. Group-mean centering of level 1 variables also make interpretation difficult. So I adopt a different strategy to account for this effect. I fit a parsimonious model with heteroskedastic error terms grouped by the various social classes. If we expect different social classes to adopt this model differentially, the residual variance

of each of these classes should be different. The test specification reveals that the residual variances are different for social classes.

While upper and lower classes have the highest residual variance, the upper-middle class has the lowest residual variance of the fixed effects model. This is a striking finding since this variance reveals that the constructed reality on this model is most applicable to upper-middle class individuals of the society. The upper-middle class is an active consumer of the socio-economic information that is input in this model and also a typical beneficiary of the neoliberal model. This class typically sees wealth increasing within their circles and their healthy material conditions affords them to be more congruent with such attitudes institutionalized within societies. Hence their satisfaction and dissatisfaction in life is more sensitive to the attributes specified in the model because of their access to such information and its usage in mentally accounting their well-being. This is a likely reason why the model fits the best for the upper-middle class. Larger model specifications with heteroskedastic error terms were computationally difficult, so I use a dummy variable to indicate upper-middle class and use it to estimate the residual variance separately (table 4 panel 3).

Compared to other classes, the model explains an additional 20% of the variance in SWB of upper-middle class. Known as the aspirational and educated class, upper-middle class has a non-trivial role in consuming and disseminating neoliberal ideas, both as potential role models of economic growth as well as validators of media narrative regardless of structural inequities faced by the lower social strata. These parameter estimates at once point to the shortcomings of the model to explain the entire spectrum of well-being across social classes but also serve as a cautionary point to similar models that

generalize across a larger population or suppress heteroskedasticity through technical data transformations. This type of heteroskedasticity may be removed when we add social classes as predictor variables, but lack of theory would necessitate fitting various arbitrary interaction combinations to understand the effect of attitudes within various social classes. I see social structures as too amorphous and complex to specify deterministic relationship structures with individual attitudes and values, therefore I limit myself to computing the error terms separately so that their aggregate structural differences could be quantified and understood. An extension of this model would be to model heteroskedasticity explicitly within the predictors by specifying separate random slopes and intercepts based on social classes. But that is beyond the scope of this dissertation.

#### 4.14.2 Urban Areas and SWB

The structural differences between various social classes set the ground for similar investigations on the urban-non-urban differences because I contend that current urbanization is a spatial manifestation of a deliberate social organization process founded on inequitable resource flows and allocation – partially an outcome of market fundamentalism as propagated by neoliberal institutions notwithstanding other historical processes. So, I fit a model by specifying heteroskedastic error terms for individuals living in urban areas (towns and cities with more than 100,000 persons) and other areas. Again, I find that the model specification fits better for individuals in urban areas than other areas (table 4 panel 2). Remember that this empirical framework is derived out of the intuition that all avenues of our personal values and attitudes are predominantly conditioned by the consumption-driven paradigm. And consistently enough, I find that

the relationships elicited in the model find greater fit within urban areas where the predictors are likely to explain well-being with greater reliability as revealed by the reduced error variance. The reduced error variance in urban areas is a validation to my contention that the consumption-driven paradigm of happiness and life satisfaction is more visible and stronger in cities. This also means that urban areas are torch-bearers of the evolving neoliberalism in several developing countries – their actions linked to these attitudes make political voices that educate people further to align with consumption-driven life satisfaction and the endless growth model. Parallel processes of agricultural decline, rural migration, urban slum proliferation and accelerated growth of urban metropolis in middle-income economies are features of contemporary economic growth that fuel this pattern further.

TABLE 6 : Parameter estimates of heteroskedastic error models (pink shade – stat. sig at 0.05 level, yellow shade - stat. sig at 0.1 level)

CMD	X7 1-1	Core/ Non-	Urban/	C!-1 Cl	Social Class
SWB	Variables	Core	Non-urban	Social Class	- Core
	Self Enhanceme	-0.00604	-0.00592	-0.00625	-0.00650
		0.01009	0.00996	0.01003	0.00993
	nt - Rich	0.54950	0.55210	0.53270	0.51280
	Self	0.01282	0.01353	0.01317	0.01251
<b>T T</b>	Enhanceme	0.00773	0.00805	0.00773	0.00766
V	nt - Success	0.09730	0.09270	0.08830	0.10230
	D-12411	0.02943	0.02944	0.02914	0 0.51280 0 0.01251 0 0.00766 0 0.10230 0 0.02894 0 0.00780 0 0.00020 0 0.00276
	Political Ideology	0.00786	0.00733	0.00797	0.00780
		0.00020	0.00010	0.00030	0.00020
	Interest in Politics	0.00219	0.00303	0.00346	0.00276
		0.01136	0.01157	0.01139	0.01128
		0.84710	0.79340	0.76160	0.80650
Competition		0.00946	0.01027	0.00958	0.00940
	Competition	0.00707	0.00730	0.00719	0.00712
	0.18090	0.15930	0.18290	0.18680	

1	1 1				
	Private	0.00373	0.00373	0.00396	0.00362
	Business	0.00432	0.00450	0.00433	0.00429
		0.38850	0.40780	0.36030	0.39860
	Corporation	0.02817	0.02854	0.02913	0.02902
	s	0.01671	0.01722	0.01639	0.02902 0.01622 0.07370 0.00204 0.00368 0.57990 -0.01352 0.00527 0.01030 0.02666 0.00485 0.00000 0.01062 0.00370 0.00174 0.00431
		0.09190	0.09740	0.07560	
	No	0.00268	0.00354	0.00228	0.00204
	Progressive	0.00365	0.00362	0.00371	0.00368
	Tax	0.46360	0.32860	0.53820	0.57990
	More	-0.01406	-0.01346	-0.01373	-0.01352
	Income	0.00554	0.00544	0.00529	0.00527
lack	Differences	0.01120	0.01330	0.00940	0.01030
igwedge	Wealth	0.02684	0.02683	0.02681	0.02666
	without	0.00482	0.00493	0.00490	0.00485
	Exploitation	0.00000	0.00000	0.00000	0.00000
	T 1' ' 1 1'	0.01085	0.01095	0.01070	0.01062
	Individualis m	0.00378	0.00387	0.00365	0.00366
	111	0.00420	0.00470	0.00340	0.00370
	*** 1.1	0.00188	0.00151	0.00179	0.00174
	Wealth Inequality	0.00454	0.00428	0.00428	0.00431
	mequanty	0.67950	0.72430	0.67650	0.68590
	- 1	-0.02376	-0.02352	-0.02240	-0.02301
	Employee Union	0.01592	0.01602	0.01549	0.01526
	Cilion	0.13560	0.14200	0.14820	0.13140
		0.27489	0.27070	0.27165	0.27415
	Health	0.01555	0.01560	0.01557	0.01550
		0.00000	0.00000	0.00000	0.00000
		0.08579	0.08707	0.08735	0.08601
	Income	0.00744	0.00745	0.00777	0.00769
1	Level	0.00000	0.00000	0.00000	0.00000
		-0.10481	-0.10150	-0.10052	-0.10231
	Poverty	0.01738	0.01707	0.01783	0.01786
	(Food)	0.00000	0.00000	0.00000	0.00000
		-0.05181	-0.05148	-0.04804	-0.05025
	Unemploye	0.02327	0.02180	0.02304	0.02321
	d	0.02600	0.01820	0.03700	0.03040
		-0.01340	-0.01455	-0.00989	-0.01228
	College	0.01517	0.01436	0.01448	0.01449
	Educated –	0.37690	0.31070	0.49450	0.39660
	Age				
	Age	0.00153	0.00131	0.00135	0.00150

		0.00071	0.00067	0.00068	0.00069
		0.03240	0.05020	0.04910	0.03070
		0.05696	0.05146	0.05554	0.05637
	Female	0.01986	0.01982	0.02004	0.01962
	1 01111110	0.00410	0.00940	0.00560	0.00410
Society Level		0.00410	0.00740	0.00300	0.00410
	Self	-0.37248	-0.37686	-0.37259	-0.36995
	Enhanceme	0.07413	0.07568	0.07414	0.07367
	nt - Rich	0.00000	0.00000	0.00000	0.00000
	Self	0.12795	0.12775	0.12885	0.13218
	Enhanceme	0.05458	0.05419	0.05629	0.05630
	nt - Success	0.01910	0.01840	0.02210	0.01890
		0.15882	0.15663	0.16112	0.16014
	Political	0.04555	0.04584	0.04612	0.04605
	Ideology	0.00050	0.00060	0.00050	0.00050
		0.18984	0.19432	0.19685	0.19314
	Interest in	0.12422	0.12217	0.12885	0.05630 0.01890 0.16014 0.04605 0.0950 0.19314 0.12851 0.13290 -0.20843 0.02802 0.00000 -0.05799 0.03682 0.11520 0.07425 0.10854
	Politics	0.12640	0.11170	0.12660	0.13290
7		-0.20687	-0.20835	-0.20840	
	Competition	0.02729	0.02684	0.02800	
M	_	0.00000	0.00000	0.00000	0.00000
	<b>.</b>	-0.06177	-0.06029	-0.05884	-0.05799
	Private Business	0.03596	0.03607	0.03680	0.03682
	Dusiness	0.08590	0.09460	0.10980	0.11520
		0.07713	0.07915	0.07026	0.07425
$\mathbf{C}$	Corporation	0.10635	0.10528	0.10915	0.10854
	S	0.46830	0.45220	0.51980	0.49390
	No	0.00137	0.00202	-0.00014	-0.00021
	Progressive	0.01321	0.01322	0.01340	0.01338
	Tax	0.91730	0.87860	0.99180	0.98730
	More	0.07183	0.07133	0.07055	0.07023
	income	0.02193	0.02156	0.02260	0.02256
	differences	0.00110	0.00090	0.00180	0.00190
	Wealth	0.05744	0.05397	0.06049	0.06237
	without	0.03576	0.03618	0.03682	0.03633
	Exploitation	0.10820	0.13580	0.10040	0.08610
		0.11698	0.11741	0.11450	0.11454
	Individualis	0.01703	0.01693	0.01723	0.01716
m	m	0.00000	0.00000	0.00000	0.00000
		-0.15738	-0.15404	-0.15505	-0.15536

	Wealth	0.02420	0.02430	0.02464	0.02447
	Inequality	0.00000	0.00000	0.00000	0.00000
	Emmlassa	-0.00659	-0.01143	-0.01310	-0.01056
	Employee Union	0.17023	0.17023	0.17367	0.17328
	Cinon	0.96910	0.94650	0.93990	0.95140
		0.10225	0.09153	0.10730	0.10717
	Health	0.06514	0.06590	0.06617	0.06569
		0.11650	0.16490	0.10490	0.10280
	T	-0.29763	-0.30061	-0.29903	-0.29678
	Income Level	0.06195	0.06213	0.06283	0.06244
	Level	0.00000	0.00000	0.00000	0.00000
	ъ .	0.08392	0.08619	0.08088	0.08026
	Poverty (Food)	0.02283	0.02306	0.02311	0.02301
	(1 000)	0.00020	0.00020	0.00050	0.00050
	TT 1	0.60587	0.60095	0.61277	0.60333
	Unemploye d	0.20148	0.20010	0.20624	0.20626
	u	0.00260	0.00270	0.00300	0.00340
	C 11	-0.02352	-0.03596	-0.01338	-0.02133
	College Educated	0.12319	0.12470	0.12416	0.12316
	Educated	0.84860	0.77310	0.91420	0.86250
		-0.01299	-0.01366	-0.01265	0.00340 -0.02133 0.12316 0.86250 -0.01213 0.00707 0.08630 -0.94027 0.48663
	Age	0.00696	0.00696	0.00709	0.00707
		0.06190	0.04990	0.07430	0.08630
		-0.95376	-0.94418	-0.94349	-0.94027
	Female	0.48104	0.48200	0.48640	0.48663
		0.04740	0.05010	0.05240	0.48663 0.05330
	Urban	0.05857	0.05892	0.05909	0.05874
	Growth	0.01626	0.01615	0.01673	0.01662
	Rate	0.00030	0.00030	0.00040	0.00040
$\mathbf{A}$	CDD	0.00087	0.00069	0.00103	0.00114
	GDP Growth	0.00726	0.00726	0.00750	0.00746
Me	Glown	0.90440	0.92390	0.89080	0.87870
	Percentage		-0.00288	-0.00296	-0.00288
	Urbanizatio	0.00153	0.00155	0.00156	0.00156
	n	0.06060	0.06300	0.05780	0.06450
	Constant	-0.01613	-0.01746	-0.01432	-0.01406
		0.01474	0.01482	0.01501	0.01495
	No of Observation	46976.0000	46976.0000	46976.0000	46976.0000
	S	0	0	0	0

	No of Groups	47.00000	47.00000	47.00000	47.00000
	Log Pseudo Likelihood SD Cons	57833.5360 0	57770.7760	57763.2610 0	57707.0070 0
	(Estimate)	0.07264	0.07246	0.07465	0.07437
Others	SD Residual Non	0.81995	0.87138	0.83081	
Core Countries	SD Residual Core	0.72613			
Urban Areas	SD Residual Urban SD Residual		0.78174		
Upper Middle Class	Upper Middle Class SD Residual			0.72448	
Upper Middle Class and Core Countries	Others None-Core SD Residual Upper Middle Class Non-				0.83647
	core SD Residual				0.74223
	Others Core SD Residual Upper Middle				0.76801
	class - Core				0.62034
	SD Inc SD Pol	0.04559	0.04513	0.04596	0.04591
	Scale	0.03129	0.02981	0.03170	0.03154
	SD Wealth	0.02045	0.02056	0.02014	0.02007
	SD Ind	0.01252	0.01276	0.01223	0.01207
	SD Comp	0.02248	0.02274	0.02292	0.02294

# 4.14.3 Organic Core and SWB

I investigate further by fitting another dimension into the model framework (table 4, panel 1). As explained earlier, I use the 'core country' classification to delineate regions based on the world-systems theory and its pre-defined macro-sociological

relationships expressed by the nature of historical economic transactions. I find that model has greater fit for core countries has than for other countries, again indicating that an empirical framework built around the primacy of consumption is more attuned to the more mature capitalistic countries who have structural differences in their values, attitudes and sensitivities towards socio-economic issues.

These differences, as the world-systems theory suggests, are rooted in historical geopolitical and geo-economic relationship with the countries in the periphery. The fact that the residuals are significantly different between the core and non-core countries is indicative of the unobserved cultural chasms within this model's specification of fixed effects. The specification of random effects allow for these anomalies and corrects these limitations at the cost of a less parsimonious model. But predictions arising from the fixed part of the model are more affiliated to the social organizational structure of the core countries than others.

# 4.14.4 Organic Core, Social Class and SWB

Finally, I use these previous patterns of residual variance to investigate if the social classes within core and peripheral countries are represented differently by the model. So I generate a new variable by interacting the upper-middle class dummy and the country-level variable 'core' to produce four different possibilities 1. Individuals who live in a core country belonging to the upper-middle class; 2. Individuals who live in a core country belonging to other classes; 3. Individuals who live in a non-core country belonging to the upper-middle class; 4. Individuals who live in a non-core country belonging to other social classes. As shown in the table 4 panel 4, I fit heteroskedastic residuals and estimate independent error variances. The model shows the lowest error variance for the upper-

middle class of core countries with 0.62 and highest variance for other classes belonging to non-core countries. Even the upper-middle class of non-core countries is explained better than other classes in core countries. The class divide and the regional divide on the model's explanatory power reveals the heterogeneity of SWB outcomes and the factors associated with it. Information about this heterogeneity is usually revealed in studies (as explained in the literature review) conducted at smaller scales with narrower focus on the psychosocial behaviors. But the fact that class differences and regional differences are noticeable for SWB under the macro-paradigm of neoliberal economic model would hopefully show new pathways for measuring and analyzing personal-level heterogeneity in SWB.

# 4.15 Summary of Results

Individual values, attitudes towards the social economic environment and beliefs affect people's happiness and life satisfaction. These attitudes, at a societal level, affect how individuals relate their material conditions to their well-being. As hypothesized in this dissertation, data reveals that individuals have higher well-being when they conform to the values and attitudes institutionalized under the current neoliberal politico-economic regime around the world. At a societal level however, countries that foster a greater degree of materialism and attitudes conforming to neoliberal model find their collective well-being decreasing. This friction, as revealed in the dissonance between individual and aggregate effects, is another pointer on the social and political turmoil in the recent years rooted on urban issues such as stagnant wages and increasing inequality. It is in this context that individuals acquire greater satisfaction through greater conformity to institutionalized ideas. As shown by the cross-level interaction effects, the reduction in life satisfaction due to increasing materialism is significantly sharper for lower income groups than higher

income individuals. The higher income groups' composite of attitudes and values and their synchrony with the dominant institutional narrative about future is likely to moderate their reduction of well-being and put them in a better position as societies start to feel the stress of materialism and competition ruling lives.

There is however significant variability in the magnitude of these effects across different cultures and region, indicating that the tenets of neoliberalism are at different levels of maturity across some of these cleavages. The variability between countries also may indicate that the interplay of these attitudes with the local cultural and historical contexts are too complex to be captured on a model of this scale. This is indicated by different model fits between urban and non-urban areas, various social classes and macrosocial clusters as defined by the structural differences between highly developed 'organic core' countries and other regions.

#### CHAPTER 5: CONSUMPTION OUTCOMES AND URBAN WELL-BEING

# 5.1 Research Questions Revisited

Let us review the empirical questions in this part of the dissertation.

- 1. How do the various dimensions of consumption affect SWB across urban areas?
  Are these dimensions individually important in explaining differences in SWB among urban areas?
- 2. Does income show a lesser sensitivity to SWB in cities with higher levels of well-being/income?

The key question is about estimating the relationship between income and SWB across urban areas within the consumption capital framework. I design the study as cross-sectional since this research seeks to further the knowledge about explaining differences in average SWB among urban areas using exogenous objective conditions that are faced by the populations in these areas. At the same time, the design needs capability to track and analyze how this empirical explanation may vary across the entire distribution of SWB among urban areas. This means the methodology should be able to validate/invalidate the hypothesis that the consumption covariates, especially income, have differential impact in less satisfied urban areas and more satisfied urban areas.

#### 5.2 Data

In order to determine how various dimensions of consumption affect SWB in urban areas, I use a combination of the World Values Survey (WVS) and the European Values survey (EVS) between the years 2008 and 2014. This includes the WVS 6<sup>th</sup> wave survey (spanning mainly between 2010 and 2014) and the latest EVS conducted in the years 2008 and 2009. The surveys were conducted at the individual level in participating countries. Started in 1981, WVS and EVS comprise nationally representative surveys of human beliefs, attitudes, values regarding family, religion, friends, work, and so on, as well as detailed socio-economic and socio-demographic information. In every wave of the WVS and EVS, information about individual happiness and life satisfaction is collected.

These national samples of individuals are collected by public and private research entities affiliated to a global consortium of researchers, World Values Survey Association. For more information and documentation, visit www.worldvaluessurvey.org. The list of variables included in WVS/EVS surveys are given in Appendix 1. The strategy for the aggregated analysis is centered on identification of observations from the countries surveyed in EVS 2008 and WVS 6<sup>th</sup> wave that belong to specific urban areas. The following section on sample development and design explains this process.

## 5.2.1 Sample Development

Each WVS/EVS survey has a key variable 'region in which the survey was conducted'. The size of this region ranges from a cluster of provinces, or provinces or single urban areas in the WVS. In the EVS, the regions are classified three-ways based on the NUTS classification. The first step is to collate all regions that are available in the dataset in order to extract observations and determine the feasibility of extracting observations from each of them. Some countries such as the U.S. and Canada have the

region variable indicating macro-regions (for example, U.S. regions are classified as South-East, North-East, Mid-West etc). Given the large number of urban areas within each such region, data from countries with larger regional definitions are unusable. Therefore, I exclude them from this dataset. Figure 19 shows the steps in sample development which I describe below.

For each country in the dataset, I manually review the regions where the survey was conducted to determine if a particular region is a clearly identifiable urban area. Attempts to geocode the regions with GADM database of Global Administrative areas (www.gadm.org), the largest known public database of provincial and sub-provincial level geographic information across all countries in the world, resulted in inconsistencies even after using fuzzy matching techniques to relate the WVS/EVS regions with region information in the GIS database. Hence, I review each region, identify their location and size manually, find urban areas within them and make sure that the observations are matched correctly.

I define an urban area as a locality with a population of 100,000 or more. This is arbitrary considering the wide disparity in the definitions used by nations worldwide. The U.S., for example, defines as 'urban' all the towns with population as small as 2,500 – this is an example of untenable definitions that have little connection to the attributes we expect in an urban area. Also, given that the urban-rural dichotomy is blurry in many countries, a clear-cut definition of what constitutes 'urban' is increasingly becoming debatable. However, I assume that a town of 100,000 people, in most parts of the world, shares definite socio-economic characteristics found in urban areas – be it employment opportunities, relatively higher incomes and well-developed transportation and logistics infrastructure.

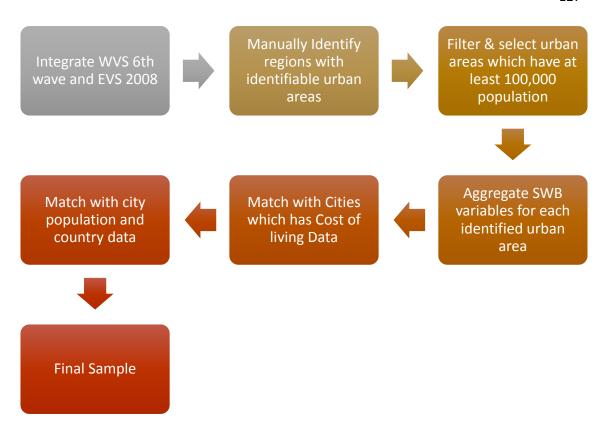


FIGURE 19: Steps involved in sample development

In the WVS/EVS, if the region's area is large but contains an identifiable urban area, I use those observations that correspond to the population of that city. In order to filter observations from the identified urban area within a region, I cross-tabulate observation frequencies with another variable 'size of town' available in both WVS and EVS. Since I limit my city list to those urban areas with a population over 100,000, I only use categories '100,000 to 500,000' and '500,000 and above' to extract observations. Since individuals are typically randomly sampled or cluster-random sampled, I expect the sub-sample within these regions to be representative of the urban areas. In many countries, a few regions are randomly selected to sample from. If these happen to be in an identified urban area or a region with only one major urban area, I can expect a representative sample to estimate the

mean SWB. I use the measure 'life satisfaction' from these observations within each urban area to calculate averages. I use this average as the estimated SWB – the dependent variable. Figure 20 shows the distribution of SWB across the urban areas in the dataset.

#### 5.2.2 Urban Area Data

I use the website 'Numbeo' (www.numbeo.com) which is currently the largest publicly available database for collecting city level consumption characteristics. The data includes income, rent, and prices for goods and services of various types in each city (see appendix 2 for variables available in the dataset). This is also the only database that contains the prices and city-level disposable income data at a global scale. I collect the data on the cities' consumption characteristics from Numbeo's cost of living database which contain information for more than 3000 cities worldwide. I match the identified cities in the WVS and EVS to Numbeo's database to connect data about food prices, housing prices, mortgage interest rate and average disposable income. I discard those urban areas that either have very low sample size in the surveys and/or have missing values in Numbeo database. Filtering on both sides, I am able to establish a dataset of 103 cities around the world which have complete data for all the variables. The data from Numbeo represent the averages between the years 2010 and 2015. The average count of WVS/EVS observations of urban areas included in the dataset is 304. Table 7 gives the distribution of sample sizes for cities in the dataset.

I collect data about the country level macroeconomic variables, GNP per capita, current inflation rate (GDP deflator 2010), historical inflation rate (annual inflation rate from 1990 to 2010), current urban growth rate (2010), past urban growth rate (1990), and

urbanized population percentage. All these variables are collected from the world development indicators database of the World Bank.

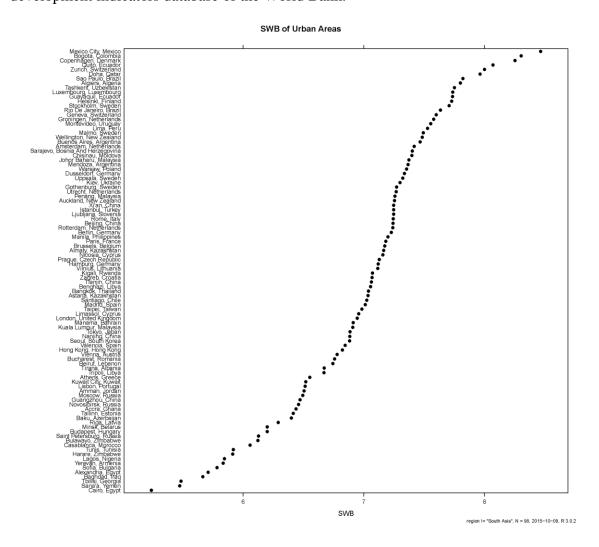


FIGURE 20 : Distribution of average SWB across urban areas in the sample 5.2.3 City Population Data

Furthermore, I collect cities' population from the city population database maintained by the UN. These data are used for two purposes. 1. Population as a control variable and to indicate consumption exposure. 2. The world city population data allow me to understand the population characteristics and hence develop sampling weights for the model based

TABLE 7: Distribution of sample sizes of urban areas included in the dataset

Observation Count (WVS/EVS)	Number of Urban Areas	Proportion
<100	13	0.13
100-300	52	0.525
301-600	25	0.25
>600	9	0.09
Grand Total	99	1

on the sample's deviation from regional representation. I also collect regional classification data from the UN's database on country classification. Similar to last chapter's analysis, I use the six-region classification in this analysis as well. East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle-East & North Africa, South Asia, Sub-Saharan Africa.

#### 5.3 Sampling Design

Similar to the previous analysis, the 103 urban areas representing 73 countries of the world are spread across all major regions of the world as shown in figure 21. Yet, the process of deriving this data is conditioned by the countries chosen for WVS and EVS surveys conducted between 2008 and 2014. Assuming that these choices are random is viable but strong. Hence I identify the sources of biases, determine the population I could infer from the analysis of these urban areas and make corrections.

The guiding mechanism to explore the representativeness of the data are the macro-regions as identified by the UN. In the previous chapter where I study individual level data across countries, I identify the countries within these regions in the sample, calculate their proportion in the sample, and compare them with the proportion of countries in the whole

world. In this analysis though, the primary sampling units are cities. Hence I collect data on cities with a population above 100,000 from the UN's database of city population. This database, while being the largest available city level population information, has missing data. Out of the 3305 cities included in the dataset, many have a population under 100,000. I discard them. Then, several have either the population of 'city proper' or the 'metro area' but not both. Since the city proper population list have fewer missing data, I decide to impute them from the populations of metro area. I develop a linear regression model to predict city proper population using the ratio of metro area to city proper in complete observations. Then based on the metro area's population with unknown city population, I estimate the ratio to be applied to calculate imputed values of city population. While the imputed population data are not used directly in the dataset, this information ensures flexibility for future weighting determination. Also, I compute the total number of cities with more than 100,000 population for each of six regions.

Now, only two cities from South Asia are included in the sample. Since both have low sample sizes and the regional representation is very sparse, I decide to exclude South Asia from the analysis. Also, North American countries, as mentioned before, have regional classifications in WVS that are too large to identify any city within them, hence they could not be included either. Barring these two regions, I calculate the proportion of cities within other regions for both sample as well as population. Here, I use the regions as hypothetical strata from which cities are randomly sampled. Therefore I calculate weights for each stratum, I invert the probabilities of selection, normalize them based on the population count and then multiply by the number of cities in each region of the sample to determine final weights.

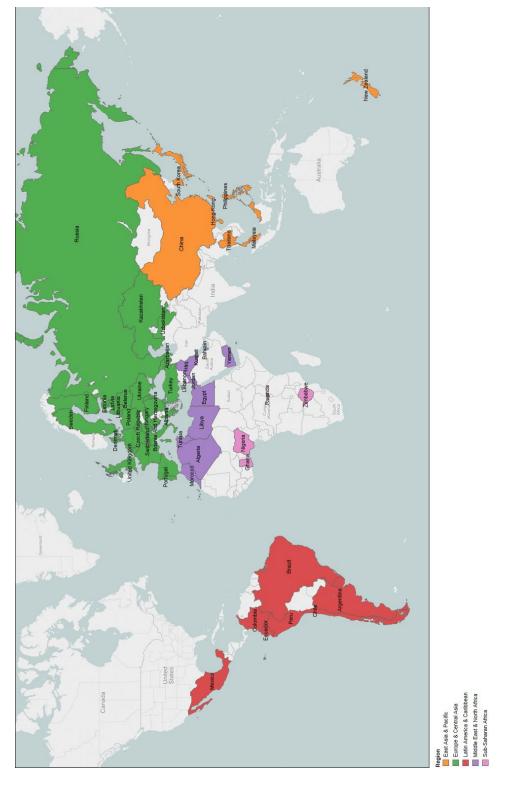


FIGURE 21: Countries where the urban areas in the sample are located

Scaling-wise, this is equivalent to dividing the sample proportion to the population proportion as the resulting weights have a correlation of 1 (following WVS http://www.jdsurvey.net/jds/jdsurveyActualidad.jsp?Idioma=I&SeccionTexto=0405). I use these factors (table 8) as the sampling weight for the rest of the analysis in order to make valid inference. The population counts I am inferring about are urban areas of the world, excluding North America and South Asia.

TABLE 8 : Region weighting factors

	Cities in	Cities in	Weighting
Region	Population	Sample	factors
East Asia & Pacific	0.2520809	0.171717	1.4680003
Europe & Central Asia	0.3404677	0.525253	0.6481981
Latin America &			
Caribbean	0.2504954	0.111111	2.254459
Middle East & North			
Africa	0.0990884	0.141414	0.7006964
Sub-Saharan Africa	0.0578676	0.050505	1.1457788

These weights could be further refined to incorporate probabilities of selection of country and then the conditional probability of selecting an urban area given all other urban areas within a particular country. Also, since populations in the cities in various regions vary, they could be sources of additional bias and hence may need additional weights. But WVS and EVS were designed as country surveys, and the goal of this analysis is to ensure representativeness of the counts across the regions. So these calculated sampling weights are appropriate and sufficient. For future work, I envision developing variants of these weights based on other key dimensions I may be interested in investigating then.

#### 5.4 Measurement of Variables

Summary Statistics of all variables described below are shown in table 8.

# 5.4.1 Consumption Dimensions

Consumption Power: I use the variable in the Numbeo dataset, 'Average Monthly Disposable Income' of the city as the primary measurement of consumption power of the urban area. As a supplemental measure, I also use GNI (Gross National Income) per Capita of the country in which the urban area is located.

Consumption Pressure: As I explained in the previous section, consumption pressure points to the affordability of basic necessities. The more one spends on necessities such as food and shelter, the greater pressure she/he experiences since the opportunity cost of consuming anything else is greater. While the definition of basic necessities may be contestable, prices of some commonly available and popular food items across the world would reasonably indicate the expenditure of an average person in the city. I calculate food to income ratio using the items listed in figure 22. This encompasses all food items that are universally used as primary nutrition. There are regional differences with the type of food consumed. For example, Asia may be more rice-centric in basic consumption whereas many other parts may consume more wheat. In order to measure comparable values between urban areas, I keep all these food items constant regardless of the region where the city is located. I add their costs and divide it by the average disposable income of the city to calculate the proportion of income used to buy a fixed quantity and set of food.

Similarly, I use apartment rent to calculate housing to income ratio. Initially, I had planned to calculate the averages of one-bedroom apartment and three-bedroom apartment in city center and suburbs to generate the overall average housing cost and

housing to income ratio. But since data on 3-bedroom apartments was sparse in many cities on the dataset, I used only the average of one-bedroom rents in the city to calculate the ratio. This is also represented as a percentage of average monthly disposable income. These two measures point to the consumption pressure.

TABLE 9 : Summary statistics of key variables

Variable	Mean	Std.Dev	Min	Max
Average Disposable Income (000 \$s)	1.561	1.394	0.213	7.346
Food to Income Ratio (%)	3.025	2.126	0.819	14.488
Housing to Income Ratio (%)	44.852	19.597	18.444	120.375
Average Historic Inflation (1990-2010)	56.849	141.481	-0.443	1103.802
Mortgage Interest Rate	8.406	5.811	1.906	33.717
Urban Growth Rate (2010)	1.491	1.737	-2.224	11.403
Gross National Income per capita (2005)	15591.150	17395.240	270.880	70213.480
Percentage Urbanization (2010)	68.469	17.974	23.952	100.000
Current Inflation rate (2010)	6.737	11.317	-2.164	103.823
Coefficient of Variation (Historic Inflation)	1.121	0.651	-0.349	2.542
City Population	2391825	3290754	107247	19636850

Consumption Uncertainty & Volatility: To measure uncertainty, I use the inflation of the country that corresponds to the urban area. For historic inflation rates, I calculate the average of annual inflation rates between the years 1990 and 2010 to show the degree of uncertainty in consumption as the price rise will reflect. I also calculate the standard deviation to measure the extent to which inflation has fluctuated. I transform the average disposable income to thousands of dollars, and the city population to millions so that the interpretation is easier within the model.

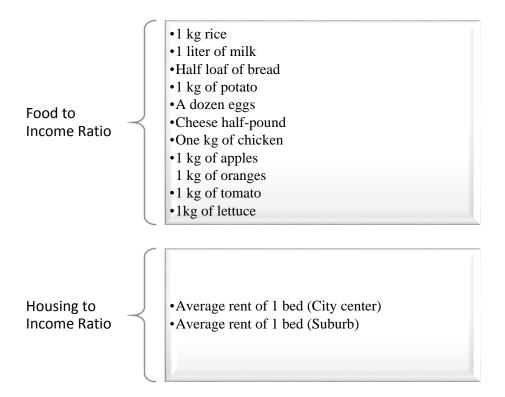


FIGURE 22: Food and housing variables used to calculate consumption pressure

Consumption Stimulation: Governments stimulate consumption by lowering interest rates on savings; thus people have more incentive to spend and consume their income rather than save. Alternatively, governments lower interest rates for borrowing, thus creating favorable conditions to stimulate consumption. I measure the mortgage interest rate prevailing in the urban areas as the measure of consumption stimulation. The lower the rate, the higher the stimulation.

Consumption Exposure and Opportunities: I conceptualize that bigger cities roughly correspond to greater consumption opportunities and exposure at an aggregate level. Therefore, I use the total population of the city to control for exposure and opportunities. Alternatively, dummy variables indicating the prominence of a city within a

region, for example: global city or alpha city hierarchies, could be added to indicate opportunities. However, I expect these to be collinear with population and other covariates. 5.4.2 Control variables:

Level of Economic Development: Percentage Urbanization is a proxy variable for current level of economic development. This controls for the overall growth of the country in which urban areas may play a significant role and affect the other covariates of consumption.

Urbanization Rate: I measure the average growth rate in urbanization in the year 2010. Faster growing urban areas may signify increased consumption pressure as well as rising incomes. Inflationary conditions are also expected as cities grow faster. Urbanization rate may be another important facet of consumption that captures the dynamics of economic growth, and based on how the local population perceived rapid growth this may have positive or negative impact.

Region: Different regions may view consumption and its link to well-being with a lens that are conditioned by historical and cultural factors. These unobserved factors may also affect how they rate their well-being independent of consumption as well. Hence I control for regions using the seven regional classification of UN as described in the last section. More discussion on regional effects is given in the model specification section.

#### 5.5 Dimensions of Consumption and their Inter-Correlations

The primary model is a direct relationship between the variables of consumption and SWB as shown by figure 23. The six dimensions of consumption, as I have outlined previously, are empirically correlated because their measurement emanates from the same macroeconomic fundamentals of a country or society. This implies that one must expect

correlations between these dimensions, which makes the identification of their marginal effects in a regression modeling framework rather difficult due to significant multicollinearity. However, the goal of this analysis is to identify the relationship of these various dimensions to SWB, given the hypothesis that this holistic combination of consumption factors explains well-being better in urban areas rather than just the variable 'income'. Also, the income effect needs to be conditioned upon the other consumption parameters as represented by these dimensions. In order to prepare the variable dimensions for modeling, I investigate the correlation structure of these various dimensions using factor analysis.

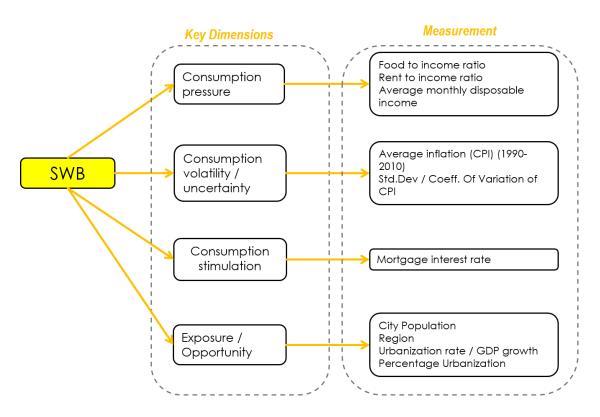


FIGURE 23: Basic model specification

The goals of factor analysis are two. 1. To estimate how these individual measurements are weighted in the larger latent dimensions such as consumption power, stimulation,

uncertainty etc. 2. To extract the dimensions if their properties allow them to be used as distinct interpretable variables.

Before starting factor analysis, I make a few data transformations. As one might imply from the table of summary statistics, there is significant skew on variables related to inflation rate. This is due to a few outliers whose inflation has been 100 times or more than the majority's average. Given the relatively low sample size, I am sensitive to losing degrees of freedom in a multivariate analysis, hence I choose to transform and correct the skew so that the assumptions of factor analysis are not violated. So, I transform average inflation rate and its standard deviation by taking their square roots, thus reducing the skew from around 6 to around 2.

I conduct factor analysis with variables shown in table 9 and table 10. Since I expect the resulting dimensions to be correlated with each other because of the reasons mentioned above, I rotate the loadings of the variables using an oblique rotation method called promax with a power of 2. From the eigenvalues in table 9, one can clearly determine three distinct dimensions of consumption (shown in the loading matrix in table 10). These dimensions represent a more refined correlation structure that explain how these various identified dimensions manifest in today's social and economic paradigm. The factor analysis is as illuminating as the subsequent modeling of SWB because it helps us improve and rework the specification as well as definition of the variables.

TABLE 10 : Eigenvalues of extracted factors

Factor	Eigen Value	Proportion
Factor1 (Power)	4.21722	0.4217
Factor2 (Volatility)	3.22356	0.3224
Factor3 (Growth)	1.85232	0.1852

TABLE 11: Rotated factor loading matrix

Variable	Factor1 (Power)	Factor2 (Volatility)	Factor3 (Growth)	Uniqueness
Food to Income Ratio (%)	-0.8132	-0.1016	0.2525	0.2253
Average Historic Inflation (1990-2010)	-0.006	0.9764	-0.0528	0.0479
Average Disposable Income (000 \$s)	0.8555	-0.1678	0.1496	0.1931
Mortgage Interest Rate	-0.4243	0.5326	0.2503	0.2714
Urban Growth Rate (2010)	0.078	-0.1568	0.933	0.1456
Housing to Income Ratio (%)	-0.6253	0.1685	0.3622	0.2755
Gross National Income per capita (2005)	0.8475	-0.2157	0.1038	0.1582
Percentage Urbanization (2010)	0.8694	0.2021	0.0368	0.3203
Current Inflation rate (2010)	-0.167	0.4726	0.5634	0.3032
Std Deviation (Historic Inflation)	0.0315	0.9775	-0.0672	0.0659

The first factor is heavily loaded positively by city's income and the country's GNP per capita, signifying that this represents an order of consumption power. The significant negative loading of food to income ratio shows that it is the high consumption power, as defined by wealth and income, which is a determinant for very low food to income ratio. This implies that the food prices has relatively less variation across the world, but the income differences define the amount of consumption pressure. So, this dimension significantly encompasses high-income channel combined with low consumption pressure. The significant loading of urban population percentage suggests that this channel also correlates to a higher degree of urbanization. Also, it loads negatively on interest rate, suggesting that the stimulation go hand-in-hand with a regime based on consumption power.

The second factor loads on the historical and current inflation and its standard deviation. Income is uncorrelated, so we may see that the distribution of income across this dimension is more even. This factor surprisingly does not share variance from food to

income ratio but that may be because of a stronger correlation with consumption power. While one would expect inflation to be closely related to food to income ratio, the variability is more strongly correlated to income. Given the heavy loadings on average and standard deviations of inflation and significant loading of current inflation, factor 2 represents consumption uncertainty and volatility.

The third factor is significantly loaded by the rate of urban growth. This is also has a positive correlations from consumption pressure as well as current inflation. This is a dimension which is prototypical of the aspect of cities or countries undergoing rapid urbanization combined with growing pressure on food and housing. This is also a prototypical dimension that has two contrasting facets. 1. The increase in wealth concentration, amply fueled by external investments and GDP growth, and then reinforced by media narrative, resulting in an economic optimism that percolates middle and lower middle classes 2. The concurrent shift of resources and policymaking from rural to urban areas in such societies result in large-scale migrations and deprivation for the poorer classes. Since the observations in the analysis is exclusively from urban areas, I expect the optimism and urban benefits of dynamic growth to have positive impact on well-being (consistent with the finding in the previous chapter that individuals tend to adhere to the tenets of neoliberal growth process). To summarize, this factor encompasses the growth trajectory of cities guided by higher economic growth and urbanization. But this is also a hybrid construct which contains the aspects of rising consumption pressure and uncertainty, albeit to a lesser extent.

Each of these factors has an eigenvalue significantly greater than 1. Each one has at least one variable loading heavily (greater than 0.8) and some other factors with almost

zero loading, thus giving rise to a distinct correlation structure. These results further reinforce the idea that the notion of income as a representation of consumption is limited and therefore needs more nuanced elaboration in empirical studies on SWB. Given the identification of these composite dimensions, I predict how cities in the sample characterize each of these dimensions by predicting a factor score from the loading matrix. I predict using Bartlett's method since they give unbiased scores while being less efficient than regression predictions.

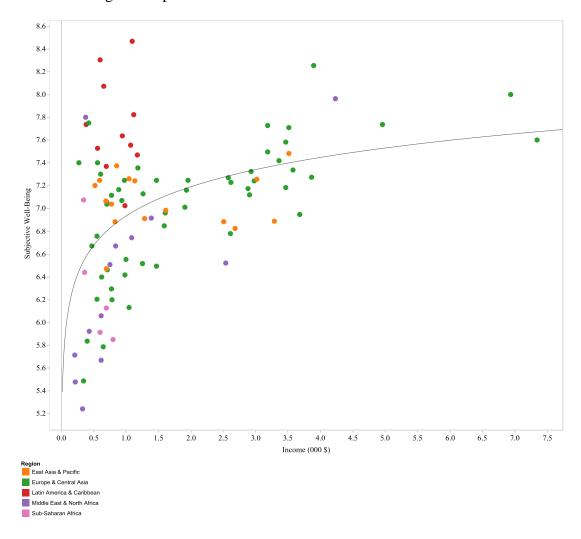


FIGURE 24: SWB and average city income

These scores now represent the variability of consumption dimensions across cities and also along the distribution of SWB across urban areas in the sample.

# 5.6 Model Specification

The objectives of the analysis are primarily two-fold – 1. To test the hypothesis that the various consumption dimensions affect SWB. 2. To see how income (consumption power) affects SWB and compare it to the stylized fact that the effect of income diminishes after a certain level of SWB. Figure 24 shows the variation of SWB

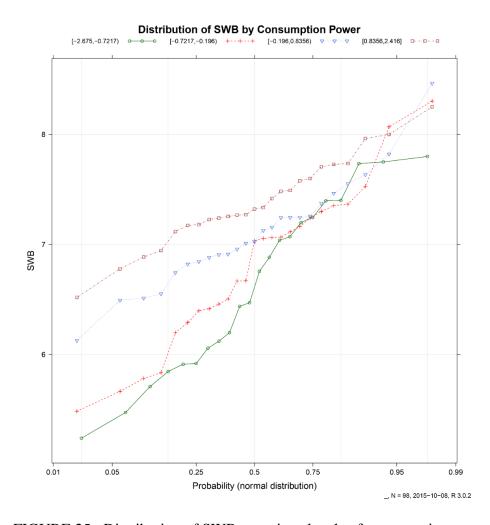


FIGURE 25: Distribution of SWB at various levels of consumption power

with income – the logarithmic curvature generally indicates the diminishing slope of income in the sample as well.

Figure 25 shows a variant of this representation except that the singular variable 'income' is now replaced by the construct 'consumption power' as developed in this study. Figure shows the cumulative distribution of SWB conditioned by the four different levels of consumption power in the urban population. I create these four levels by first sorting the urban areas on their consumption power, then dividing the sample into equal number of observations, and using the cutoff values to create the categories.

Then I plot the cumulative distribution of SWB for each category of consumption power values.

One can observe that cities with lower level of consumption power (green line) start at a lower level but catch up to the distribution of cities at higher level of consumption power. After about 75<sup>th</sup> percentile of the distribution, one can see signs of convergence between urban areas with lower consumption power and higher consumption power levels. In other words, there is greater heterogeneity and range of SWB values among cities with lower consumption power. Such variations in the conditional distribution cannot be captured by OLS framework easily, and the distributional assumptions for estimation may be restrictive.

The analysis of cross-sectional data on aggregate levels of SWB is inadequate to support these assertions as they model only the mean of the SWB distribution. In this modeling effort, I bring a significantly improved framework which accomplishes both these objectives and also augments the flexibility in model specification. To this end, I estimate a weighted fixed effects quantile regression model of SWB.

### 5.6.1 Quantile Regression

Quantile regression (QR) is a flexible alternative to the OLS framework. Quantile regression estimates the conditional quantiles of the dependent variable distribution in the linear model that provides a more complete view of possible relationships between variables. Introduced by Koenker and Basset (1978), QR conceptually is an extension of least squares estimation of conditional mean models and estimates an ensemble of models for several conditional quantile functions.

In this context, I analyze the entire distribution of SWB and estimate the effects of predictor variables at the various quantiles of SWB. Quantile is a generalized term for the percentiles and ranges from 0 to 1. When SWB is transformed to quantiles, the 100<sup>th</sup> (1) quantile will represent the maximum SWB. The median will be the 50<sup>th</sup> (0.5) quantile. So, I estimate a linear model of SWB at every quantile in order to understand how the effects of consumption vary as cities move towards higher or lower levels of SWB. An illustration of quantile regression in figure 28 shows show regressions may be estimated at different quantiles (represented as  $\tau$ ) along the conditional distributions of SWB (Y) at various levels of the explanatory variables (X). For more details, please refer Koenker, R. W. (2000) and Koenker, R., & Hallock, K. (2001).

The estimation of  $\beta$  in quantile regression follows the formula below.

$$\hat{\beta}_{\tau} = \min_{\beta \in \Re^p} \left[ \sum_{i \in (i: y_i \geq \mathbf{x}_i^T \beta)} \tau | y_i - \mathbf{x}_i^T \beta| \right. \\ \left. + \sum_{i \in (i: y_i < \mathbf{x}_i^T \beta)} (1 - \tau) | y_i - \mathbf{x}_i^T \beta| \right. \\ \left. \right]$$

Where  $y_i$  is the value of SWB of observation i.  $x_i$  is the value of the covariate and  $\tau$  is the quantile at which  $\beta_{\tau}$  is estimated.

The best estimate of  $\beta$  for a given quantile is found by minimizing the absolute sum of residuals asymmetrically weighted by the quantile  $\tau$ . In the minimization problem, the unknown solution's positive residuals are weighted by  $\tau$  whereas the negative residuals are weighted by (1-  $\tau$ ). One can see that at  $\tau$  = 0.5, the weights would be symmetric and represent the median regression equation.

The flexibility of QR also extends to the distributional properties of the dependent variable as it makes no assumption about them. Hence, the non-normal error distributions arising in how SWB is spread across cities or countries or other contexts can be naturally accommodated and explicitly analyzed for associations under a multivariate model specification.

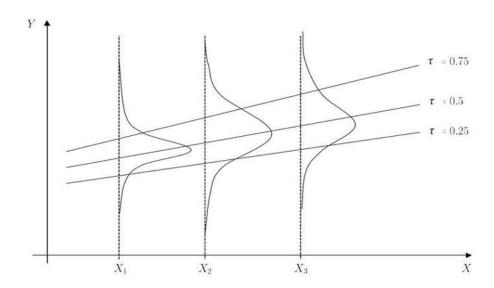


FIGURE 26: Illustration of quantile regression lines

# 5.6.2 Region Fixed Effects

Apart from the consumption dimensions, I control for all other unobserved regional variables and the cultural heterogeneity that may affect SWB by incorporating region fixed effects. This is especially important in order to avoid omitted variable bias and misspecification. The drawback of this strategy is that one may not be able to drill into the nuances of other variables that affect SWB. But since this model is focused on consumption dimensions, my goal is their unbiased estimation. Also, such heterogeneity and micro-level interactions are modeled in the previous chapter while exploring SWB at the individual level.

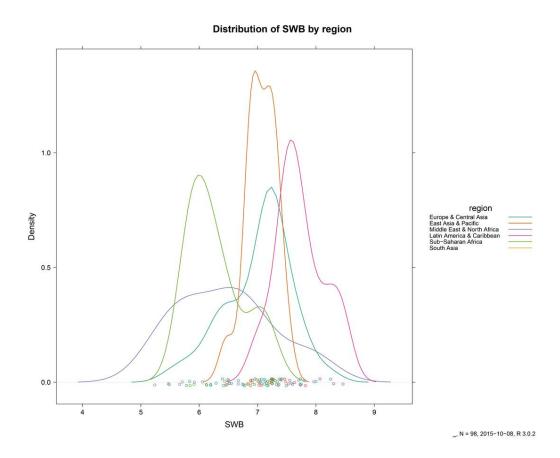


FIGURE 27: Distribution of SWB in various world regions

Figure 27 shows the variations in distribution of SWB across the different regions in which the urban areas in the sample are located. The magnitude of differences between

regions further reinforces the need to have fixed effects – dummy variables that control unobserved heterogeneity among regions.

An additional advantage due to this specification is our ability to explore regional interactions of consumption dimensions but still maintain a parsimonious model. These additional analyses are part of my future work.

### 5.7 Power Analysis

Before starting the analysis using the measured consumption dimensions, I perform power analysis. The question of adequacy of sample size always arises with a seemingly low sample size of around 100. This necessitates a side-investigation to determine the power of a regression analysis. In order to confirm, I set the alpha (statistical significance standard) at the conventional 0.05 and the required power at 0.8 which is the probability of not making a type-ii error. For the effect size, I choose two variants of expected partial R<sup>2</sup> for the consumption variables – one that represents a medium effect size, and the other a large effect size. Since I expect the effect of consumption, as found in previous literature, to be strong, the most conservative effect I can use is a medium effect size corresponding to the expected partial R<sup>2</sup> of about 0.15, which translates roughly into an effect size of 0.15. Figure 28 and Figure 29 show plots with critical values of the F-test conducted and table 11 shows the results of power analysis. I add additional control variables (explained in the sections below), hence specified the number of total predictors to 9, and the key predictors are the 3 factor scores. Based on these assumptions, I expect the power of the analysis to be significantly high and hence can proceed with the current sample size to make reliable inference.

One must note that I conduct the power analysis for multiple linear regression and not for quantile regression. This is because no power analysis procedure specific to quantile regression exists at this point in time. The variability of effect size over different quantiles suggests that a series of power analyses be performed. But I limit myself to this approximation until a definitive method is discovered for conducting power analysis for quantile regression.

## 5.8 Does Consumption Affect SWB?

Let us take a deep look at what the model indicates about how various consumption dimensions affect subjective well-being of urban areas. Table 12 shows the parameter estimates of consumption variables at selected quantiles of SWB. Table 12 also includes the effect of regions which may be interpreted as marginal intercepts for urban areas within

TABLE 12 : Power Analysis

I/O	Parameters	Big Effect size	Medium Effect size	Small Effect size
	Effect size f <sup>2</sup>	0.25	0.15	0.02
	α err prob	0.05	0.05	0.05
Input:	Power (1-β err prob)	0.8	0.8	0.8
	Number of tested predictors	3	3	3
	Total number of predictors	9	9	9
	Noncentrality parameter λ	12.25	11.7	11
	Critical F	2.845068	2.739502	2.621409
Output	Numerator df	3	3	3
Output:	Denominator df	39	68	540
	Total sample size	49	78	550
	Actual power	0.806909	0.805651	0.800725

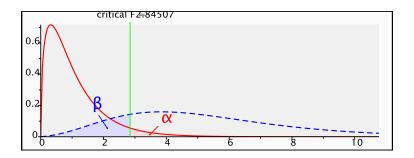


FIGURE 28 : Distribution plot (F- Test)—strong effect size

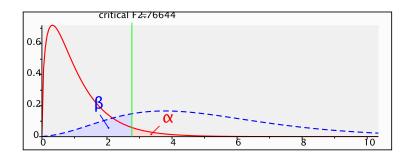


FIGURE 29: Distribution plot (F- Test) – medium effect size

that region. Also included is the OLS regression result for comparison. Apart from the table of estimates, I conducted fine-grain quantile regressions (a model for every 5<sup>th</sup> quantile) and plotted the variability of coefficients (and their 95% confidence intervals) across the SWB distribution in figure 30, figure 31 and figure 32. The rest of the interpretations in this section emerge from the table and these sets of plots.

Following are the parameter estimates of the Urban SWB model.

The parameter estimates reveal that all consumption dimensions are statistically significant at various quantiles and affect significant changes in SWB as urban areas grow in SWB. Consumption power dominated by income, stimulatory policies and scant

as supported by the consistent positive coefficient. While this is a conclusion one might also draw from OLS regression, figure 30 (1st panel) shows a more nuanced character of this variable. At lower quantiles of SWB, the effect of consumption power is the highest, but the effect rapidly tapers off as the urban areas move to higher levels of SWB. Around 75th quantile, the effect of consumption power becomes statistically insignificant, indicating that marginal increases in consumption do not result in higher well-being. A unit standard deviation increase in consumption power increases the 10th quantile of SWB by 0.29 units, but this declines around 28% for the 50th percentile SWB. And then, it dramatically declines to effectively zero effect at 75th quantile as shown in the table. This result remains consistent with the earlier stories in the literature, but these results further quantify the rate of decline in the effect of income of SWB, and also the trajectory of this decline. One can see that the overall trend is a decline but the process is anything but linear.

Also, departing from previous studies, I observe that other aspects of consumption have a significant impact on the urban areas' SWB. Consumption volatility and uncertainty have a consistently negative impact through most of the distribution of SWB. This effect however tapers off at around 80<sup>th</sup> quantile indicating that volatility does not affect well-being for urban areas with some of the highest well-being averages. But in contrast to consumption power's steady decline across the lower quantiles, volatility has a strong negative effect which remains stable until those higher quantiles. This implies that volatility is an aspect of consumption that is more sensitive across a wider cross-section of cities. It also implies urban areas' sensitivity to the changing baselines of urban survival, as captured by the uncertainty in the prices of goods and services. This counteracting force

of consumption effectively nullifies the income effect on most of the lower quantiles. But the trend of this effect, as shown in figure 30, sharply reduces at high quantiles – indicating that urban areas that are highly satisfied are immune to this facet of consumption as well.

The third aspect of consumption that has a consistent impact on SWB is the rate of urbanization combined with rising prices of food, housing and other services. As revealed by table 12 and figure 30, rapid urbanization combined with inflationary conditions has a statistically significant positive effect on SWB across most of the distribution of SWB. The pressure on essentials such as food and housing when happening simultaneously along with faster urban population growth is seen as a marker of higher well-being in urban areas. The idea and phenomenon of rapid urbanization manifesting as greater rural-urban migration, increasing resource concentration via development of efficient logistics infrastructure and economic policies, and increasing foreign investments (particularly in developing countries) is seen as an indicator of economic optimism which result in greater life satisfaction.

The possibilities of economic mobility for lower and middle classes through faster urbanization process appears to instill greater well-being in urban areas, as indicated by the model. One should note that this positive effect is independent of the level of consumption power of the city, which is controlled for in the model. Rather, the current socio-economic paradigm and narrative, as discussed in the previous chapter, seems to bring about a confidence about future consumption hence increasing the urban areas' overall well-being. This confidence, as seen in nations with rapid GDP growth and whose public discourse critically hinges on GDP measurement, results in higher well-being despite the structural inequalities that emerge during the process. The resource-allocation imbalance created

between rural and urban areas during rapid urban growth is an additional reinforcing force that perpetuates further migration. At this point in history, consistently with my hypothesis of congruence, it seems SWB is linked to the positive urbanization dynamics of the country—either as a function of institutionalized growth narrative linking current urbanization to future economic mobility, or as a response to real changes in the material conditions of larger sections of urban middle classes in many countries.

The dynamics of urbanization fueled by population redistribution, as argued in this study, has both direct and indirect loading onto the larger consumption-centric lifestyle of urban areas, and hence needs to be accounted for when discussing the income-SWB axis. Higher consumption pressure combined with higher population growth, as shown by the stable positive effect at higher quantiles, remains a synergistic force for greater SWB even when the effect of income-driven consumption power declines at higher quantiles of SWB. This supports the argument that the concept of consumption needs to be treated holistically within the research discourse about SWB and its policy implications.

In summary, consumption dimensions, as conceptualized in this study explain a significant amount of variance in urban SWB and clearly brings an enriched picture of the variability of SWB along the consumption-centric paradigm that guide urban areas' aspirations.

### 5.8.1 Regional Effects

The fixed effects of regions, expressed by their intercepts, also reveal interesting changes across the SWB distribution, as portrayed by figure 31. The reference category is the region 'Europe and Central Asia', so all coefficients may be interpreted as the mean

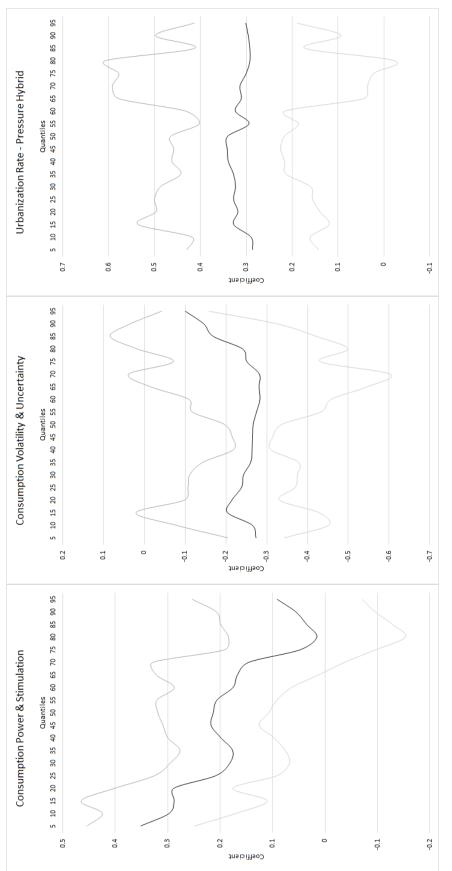


FIGURE 30 : Variation of consumption effects on SWB across quantiles (middle dark line – point estimate, lighter lines – 95% CI)

ant		7						,						67			10	
Constant		6.7697	0.0000		6.9300	0.0000		7.1026	0.0000		7.4221	0.0000		7.5362	0.0000		7.1885	0.0000
Recession Years		-0.3236	0.0000		-0.2155	0.0210		-0.2169	0.0280		-0.0911	0.6760		0.2249	0.3160		-0.2154	0.0440
City Population		-0.0243	0.1520		-0.0019	0.9140		-0.0274	0.0750		-0.0287	0.0420		-0.0163	0.2400		-0.0223	0.1380
Sub- Saharan Africa		-1.3489	0.1990		-0.7871	0.3110		-0.7185	0.0040		-1.2321	0.0000		-1.3029	0.0040		-0.9538	0.0010
Middle- East& North Africa		-1.1621	0.0000		-1.0204	0.0010		-0.9635	0.0010		-0.7617	0.2370		0.0421	0.9460		-0.8380	0.0020
Latin America		0.9714	0.0580		0.8024	0.0000		0.9698	0.0000		1.0058	0.0000		0.8318	0.0000		0.8770	0.0000
East Asia & Pacific		-0.0420	0.8190		-0.2389	0.1200		-0.0570	0.6510		-0.2447	0.0240		-0.2540	0.2030		-0.1886	0.1420
Urbanization Rate - Hybrid		0.2900	0.0000		0.3280	0.0000		0.3409	0.0000		0.3004	0.0340		0.2959	0.0050		0.2924	0.0000
Consumption Uncertainty		-0.2643	09000		-0.2380	0.0010		-0.2666	0.0000		-0.2510	0.0070		-0.1451	0.1120		-0.2252	0.0000
Consumption Power & Stimulation		0.2971	0.0000		0.2080	0.0010		0.2131	0.0000		0.0474	0.5150		0.0557	0.4670		0.1902	0.0020
Quantiles of SWB	10	þ	p-value	25	þ	p-value	20	þ	p-value	75	þ	p-value	06	þ	p-value	OLS	þ	p-value

TABLE 13 : Parameter estimates – cities and SWB (Quantile regression model)

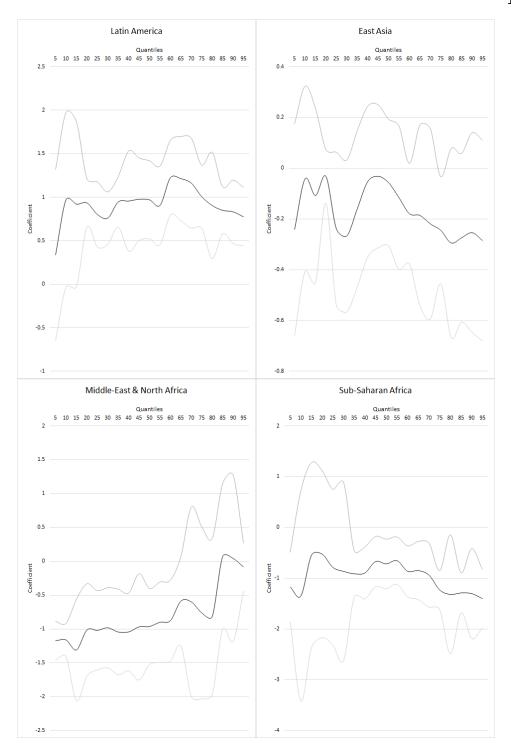


FIGURE 31 : Variation of regional effects on SWB across quantiles (middle dark line – point estimate, lighter lines – 95% CI)

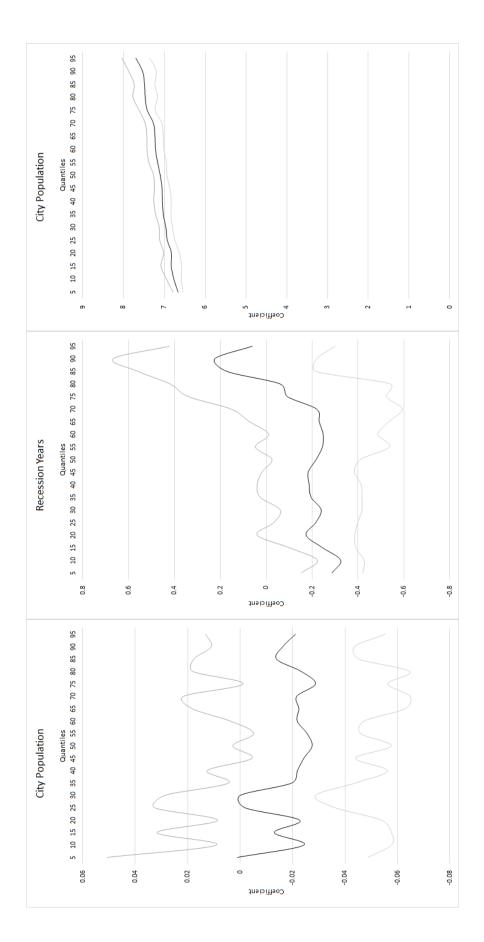


FIGURE 32: Variation of other effects on SWB across quantiles (middle dark line - point estimate, lighter lines

– 95% CI)

differences in SWB at various quantiles. The figure shows how the various fixed effects change along the SWB distribution. Latin American cities on average have higher SWB starting at around the 15<sup>th</sup> quantile and mostly maintains this edge for cities in Europe and Central Asia through the rest of the distribution. In contrast, middle-eastern and North African urban areas start with lower SWB at lower quantiles but converge to the averages of Europe at higher quantiles of SWB. But this pattern is reversed in Sub-Saharan African cities whose coefficients show no difference from the means of European and Central. Asian cities for lower quantiles but start to diverge and end up with lower SWB at higher quantiles. East Asian cities have no mean differences in SWB with European and Central Asian cities when controlled for consumption characteristics

The sparseness of representation from some regions make the interpretation of regional effects slightly less surefooted. But given the sampling corrections and adequacy of statistical power of this study, one may use these results and plan to replicate this model when data becomes available for more cities.

#### 5.8.2 Other Effects

Controlling for the economic and regional effects, population of a city has no impact on its SWB as revealed by figure 32. The years of global recession appears to have marginal impact on the lowest quantiles but no impact on any other part of the distribution. Given that the source of this economic depression was in the U.S, the data is relatively unaffected as North American urban areas are not included in the study. The constant, representing the adjusted quantiles, rise steadily as expect through the SWB distribution

#### 5.9 Summary

Estimates from the model clearly show the importance of reformulating the conception and measurement of consumption outcomes and their relationship to SWB. The model continues to confirm the diminishing effect of consumption power on SWB. But more importantly, it shows that additional dimensions of consumption may be independently affect collective SWB of urban areas. While volatility predictably decreases SWB, optimism and dynamism of the overall urban environment continues to have a strong and steady positive effect on urban life satisfaction even when income effect is zero. Based on the zero effect of income on SWB after a certain threshold, previous literature contain interpretation about societies potentially becoming post-materialist. These results certainly do not support such positions as one or the other facets of consumption continue to matter for urban SWB.

#### **CHAPTER 6: CONCLUSION**

This dissertation extends the understanding about subjective well-being (SWB) and how it varies in a consumption-driven world. In this chapter, you will find, 1. A summary of my dissertation that includes briefs of the research questions, theoretical framework and important findings. 2. A discussion on ongoing and future work directly inspired by these findings 3. A general reflective discussion on the foundational aspects of my theoretical framework

# 6.1 Summary of the Dissertation

In this study, I argue that, in addition to material conditions of individuals and societies, attitudes and values we enshrine within ourselves and in society matter to individual and collective human well-being. I contend that contemporary societies around the world are shaped by a neoliberal ideology with varying degrees of maturity and success across cultures and regions. Therefore, dominant economic and political institutions apply key tenets of neoliberalism to educate and dictate how individuals and societies should calibrate their actions and reactions with their environment. This includes formal and informal education on what is right and what is wrong, what is common sense and what is not, what is rational and what is irrational, and so on. These moral and logical baselines of

individual and societal decision-making are colored by the positions and ideals of dominant institutions, many of which are influenced by neoliberalism in today's society.

Neoliberalism's ideological locus rests on historical materialism and the primacy of material consumption. This foundation is built by selective facets of neoclassical economic theory - consumer utility at a micro-level, free markets and free trade at the macro-level. So, under this regime, the definition of success and prosperity is synonymous with maximizing consumption. Emancipatory ideals of national constitutions such as liberty and freedom are also indirectly interwoven into a narrative focusing on maximizing consumption where ethics are mostly determined by the invisible hand of market-driven economics. Within this theoretical construction of the larger environment, I identify institutionalized values and attitudes that individuals and societies use to relate to their socio-economic environment. These attitudes include individualism, competitiveness, materialism, preferences about resource allocation, political ideology and interest in politics etc. Since these attributes have direct or indirect underpinning on the material conditions such as income, health, poverty, unemployment etc., I empirically examine if values and attitudes matter to subjective well-being, in addition to the established contributive factors. The congruence model of well-being tells us that people who align or are socialized to align their thoughts and behavior to the larger mainstream may have higher satisfaction. I test if values and attitudes that are in general support to the neoliberal ideals are associated with higher subjective well-being, within and across countries. I also test how heterogeneity in the effect of material conditions on SWB is moderated by collective beliefs and attitudes of the society and vice versa.

Contemporary urban areas, I observe, are the spatial manifestations of the outcomes of this development ideology and serve as symbols of disproportionate consumption, wealth concentration, nodes in the network of wealth flow, and centers for propagating a lifestyle of conformity to the tenets of neoliberalism. In a world that is exhorting the world to be fully urbanized, I identify key consumption-fueled indicators used to gauge the health of a society. The predominance of these indicators and their strong affiliation to the aspirations of urban centers motivates me to test how aggregate subjective well-being of urban areas vary conditional to the various key dimensions of consumption. So, In addition to the aforementioned analysis of values and attitudes, I separately analyze how consumption outcomes affect urban subjective well-being.

### 6.2 Summary of Results

The results from these analyses are intriguing. I find that people and even societies who align with the dominant socio-political paradigm (fueled by neoliberal institutional imperatives) are more satisfied with life than those who seem to dissent the status quo or 'mainstream'. This happens independently of an individual's or society's material conditions. I also find that society's inclinations towards values attributable to materialism and economic Darwinism reduce collective life satisfaction. But the rate of decline of life satisfaction due to increasing materialistic tendencies is dissimilar between various income groups. The poor suffer more when materialism increases in their environment. On the contrary, when support for cultural materialism and competitiveness declines in the society, life satisfaction outcomes tend to converge among the various economic classes.

Complementing the nature of these findings, I also observe how life satisfaction varies for individuals with differing political ideologies under changing material conditions in the society. In societies that have greater difficulties in procuring basic necessities such as food, life satisfaction expectedly is lower than more prosperous ones. But this decline of satisfaction is the sharpest among individuals who belong to the left margins of the political spectrum. The rate of decline for the individuals on the right side, on the contrary, is gentler. Individuals on the right are less satisfied with life in societies with lower poverty (measured as level of food deprivation) but they end up more satisfied in societies where deprivation is more common. Similarly, the interaction between urbanization rate and attitude towards wealth generation is instructive. As urbanization rate increases, I observe that well-being increases as well. But the rate of increase is the highest for those individuals who strongly believe in a world where wealth grows without externalities. In contrast, individuals who strongly believe that wealth is generated at others' expense have gentler rate on increase in well-being in response to rapid urbanization rates.

Optimism about wealth generation, a positive disposition to competition, individualism, combined with a position of the right side of political spectrum appears to be desirable concoction of attitudinal make-ups associated with higher subjective well-being. Also, these compositions' supportive effect on well-being is greater for individuals belonging to higher classes in the economic ladder.

In the second part of the analysis, I examine how the various dimensions of consumption affect the aggregate well-being of urban areas. I conduct this analysis by recognizing that popular discourse about social change is predominantly predicated by the changing material conditions as encapsulated by the various indicators of consumption. I

also recognize that the framework defining consumption outcomes needs to expand beyond the disproportionate research spotlight on the idea of 'income'. The framework thus incorporates, implicitly or explicitly, notions of stability or volatility of consumption, and more amorphous processes of urbanization that point to optimism about future consumption and opportunities. So in this study, I make gentle inroads into decomposing the correlation structure of various facets of consumption, refine these measurements into distinct composite factors, and analyze how each of these factors affect SWB.

Consumption power, encompassing a composite of high income, high stimulation, and low survival pressure, affects SWB positively. But its effect diminishes rapidly as urban areas grow more satisfied. This is synonymous with the already established 'income effect' on SWB in prior literature. However, the dominant narrative in previous literature concerning this phenomenon is that the income effect drops after a certain threshold of income/SWB. In contrast, I observe that those parts of SWB distribution where the income effect was previously implied to be steady are not so. The income effect, as part of the effect of consumption power, starts cascading down even at the very bottom percentiles of SWB distribution. For example, an urban area at the bottom 10<sup>th</sup> percentile of SWB experiences a 0.29 unit increase in SWB for one standard-deviation increase in consumption power whereas this effect is reduced by around 28% for an urban area at the 50th percentile position. This means most of the previous empirical studies, based on ordinary least-squares regressions, which draw a single positive slope and a polynomial term to model the diminishing "income effect" were not as informative about how the effect of income/consumption power changes over the lower parts of the distribution of SWB. In addition to the effect of consumption power, consumption

volatility measured by the composite of historic average inflation and changes in annual inflation shows a steady negative effect on SWB. I observe that consumption volatility's negative effect progressively becomes greater when viewed together with the diminishing impact of consumption power. However, both power and volatility lose their influence on SWB for highly satisfied urban areas.

But the most persistent positive effect on an urban area's well-being is not related to variables that indicate current conditions but what appears to be an optimism about future growth and consumption. I find that the composite factor highly weighted by higher urbanization rates but which also relates to current inflationary conditions has a consistent positive effect on SWB. This composite factor captures the contemporary growth model in many countries, especially in the developing world where rapid economic growth and rapid urbanization are considered desirable outcomes. The negative aspects of rising prices for food, housing etc, growing inequality and rural-urban migration seem to be offset by hope and optimism surrounding faster urban growth. The exposure to new avenues of consumption and the availability of new opportunities amply supported by media commentary might invoke a positive outlook on future consumption, given how people are sensitized to view macroeconomic indicators. This result however raises questions about channeling the discourse between materialism and SWB by prominently using the stylized income-SWB relationship. If urban areas continue to grow more satisfied with faster urbanization rates, this indicates that aspects of consumption and materialism in the urban areas may continue to matter for SWB. These results illustrate a greater need to test alternative and multidimensional measurements of consumption.

#### 6.3 Future Research

The results of individual-level analysis give indications supporting my key hypothesis. To validate these results further, I plan to find ways to reformulate the relationships between the various values and attitudes so that they could be incorporated into the model without estimation problems. Practical issues concerning dimension reduction, centering of variables and maintaining interpretability across a large number of variables continues to be a challenge to deal with, especially with multilevel modeling. As I find this direction to be promising, I also envision the conduct of a smaller scale study that incorporates alternative measurement of institutionalized values and attitudes.

As for the aggregate analysis of urban SWB, the results offer multiple interesting paths for future research. The fixed effects of regions in the quantile regression framework naturally bring the question about how relationship between consumption dimensions and SWB vary across regions. I plan to investigate regional interactions based on the current classification scheme as well as alternative classifications. In relation to analyzing the regional effects, exclusion of North American (United States and Canada) urban areas from the sample due to coarsely defined regions in their respective country surveys is a limitation in this research. In order to resolve this, I plan to get in touch with the entities who conducted these surveys to see if obtaining finer spatial resolution of the survey sites is feasible.

Also, the differential effect of consumption power on SWB motivates me to investigate the possibility of multiple latent distributions of SWB within the overall distribution, some of which are highly sensitive to consumption and some not so much.

These queries open up opportunities for more flexible modeling approaches which could improve the knowledge within this research domain.

Till now, I have described the current study, its results and options for future research that directly stems from the empirical findings. Now, where do all these results leave us in relation to what is already known and postulated in the literature about personality, society and well-being? And how do we contextualize these results onto the broader mosaic of social theories situated at various scales? In the following section, I discuss some thought-outlines about building an integrative institutional theory based on the formulation of constructs in this dissertation.

### 6.4 Towards a Normative Institutional Theory of SWB

As explained in the theoretical framework, many models connecting personality types and well-being have found empirical support in the previous literature. Cognitive models say that inborn temperament accounts partly in people showing differential propensities in their reactions to external stimuli. Goal models argue that the nature of goals people strive for and their associated success have positive effect on well-being. Emotional socialization models tell us that through multiple complex mechanisms of conditioning, instrumental learning, imitation and so on, people learn how to express themselves internally as well as externally. And congruence models, as already mentioned in this chapter, show that the level of fit of an individual within one's environment produces outcomes of higher well-being. I regard that these models are not mutually exclusive but inter-related mechanisms through which the larger canvas of human-environment interactions manifest in society and space.

My philosophical position on human-environment interactions, as previously outlined in the study, relegates humans to a passive reactive space and promotes environment to an active driving space. And this environment mainly consists of an institutional complex. Human tendency for risk and uncertainty aversion may be one of the formative factors of institutional development – the defined role of institutions being that of caretakers, powerful agents who build symmetry, uniformity and stability of thoughts and actions in societies. But then, institutions also assume their own protective identity and personality over time. Institutions, similar to humans and operated by humans, may also be risk-averse in regards to any volatility and change to their enshrined ideals and values. The additional sense of guardian-like responsibility of the collective, whether real or imagined, may make institutions more strident in their expression and fierce defendants of their self-identity, thus contributing to their rigidity and influence. The degree to which institutionalized values and ideals are indicative of individual aspirations may determine the nature of congruence and harmony between humans and their environment.

Given the institutional predisposition to defend and protect its ideals, the neoliberal regime embarks on an expansive and continuous educational crusade to organize its reactive elements, individuals, into a desirable social order. This may be similar to the process by which an individual's ego-identity tirelessly rationalizes its thoughts, inclinations, actions and outcomes in order to maintain an internal equilibrium. The institutional crusade is never-ending and is constantly evolving as these reactive elements spring surprises with their creativity and rebellion. But the antidote to quell this challenge is pre-cast into the ideals of neoliberal institutions – the supremacy of consumption. The instinctive quest of individuals for basic needs such as food, shelter and safety is not only

an effective dampener of creativity and rebellion but a persuader of congruence between individual and institutional aspirations under the neoliberal regime. The firm grip of institutions on these uncontrollable/indispensable facets of human existence and survival, the asymmetry of information and financial power between institutions and individuals, the sweeping generalization of consumption as a pre-condition to well-being, the effective camouflaging of the axiomatic foundations of modern economic theory within mathematical formalism, are all aspects of neoliberalism's success across cultures.

But the biggest hallmark of this regime has been its ability to educate individuals into assuming a strong sense of agency. Individualism and its affiliation with modern day capitalism is an outcome of this education. In other words, the individual sense of agency is fortified and redirected to a system of rewards and punishments based on monotonous consumption goals. Simultaneously, individualism under neoliberalism insulates individuals from the ownership or critical analysis of the institutional/structural whole by repeatedly putting the spotlight of onus back on the individual for positive actions. As a result, institutions attain relatively greater stability. As neoliberalism spreads and homogenizes across cultures and regions, debate about its outcomes on individual lives will take the color of the respective moral positions of its participants. But regardless, the enduring theme, as this dissertation has attempted to bring about, is how it would affect an individual's happiness and contentment in life.

Within this larger discourse, one may induce the relationships between various psychological models that are used to explain well-being. I conceptualize the institutional paradigm of this study as neoliberal. Goals (in the context of goals model) that precede success and well-being are set within this paradigm. So are the standards and tools with

which individuals and societies are sensitized and desensitized about their needs and priorities. The degree of congruence expected out of an individual to gain well-being may depend on the quality of enforcement of institutional rules and structures, and its relative popularity and maturity to alternative paradigms. The primary micro-psychological mechanisms of aspiration, adaptation, reward-seeking etc are circumscribed by their objects as defined by this paradigm. Therefore, it follows that the seeming exclusivity of these different psychological models would somewhat resolve under a pre-defined institutional superstructure which brings an authoritative conditionality and direction to these models.

The results of this study encourage me to develop an integrative institutional theory of SWB across multiple scales of investigation. The need for greater coordination of sociological theories, psychological mechanisms and their careful application to institutional analysis of SWB cannot be overstated – both in light of these initial study findings as well as the connections found among theories that motivated my empirical research. However, this vertical integration of social theories into the psychological mechanisms underlying them is not straightforward since it requires us to reconcile apparent disparities in the theoretical dialects and methodological standards set by different yet related academic disciplines.

The portrayal of SWB as the most important frontier in behavioral research in recent years presents both opportunities and challenges. On one hand, research directly focusing on happiness and life-satisfaction and its direct attack on the status quo economic principles finally makes it possible to activate a public policy discourse that departs from traditional dogmas surrounding individual and societal prosperity. But the immunity of

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SWB against the pervasive forces of commodification is questionable. Recent discourses

surrounding the abandonment of 'things' to embrace 'experiences' may sound like a walk-

away from traditional materialistic lifestyle. But within the neoliberal institutional regime,

many experiences are products too. The real possibility that all this talk may evolve into

making 'happiness' and 'life satisfaction' the next big product is the next big challenge.

"What fun it would be if one didn't have to think about happiness."

- Aldous Huxley, Brave New World

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## APPENDIX A: COUNTRIES AND SAMPLE SIZES IN WVS 6

Country/region	Freq.	Percen	tCum.
Algeria	1,200	1.62	1.62
Azerbaijan	1,002	1.35	2.97
Australia	1,477	1.99	4.97
Armenia	1,100	1.49	6.45
Belarus	1,535	2.07	8.53
Chile	1,000	1.35	9.88
China	2,300	3.11	12.98
Taiwan	1,238	1.67	14.66
Colombia	1,512	2.04	16.70
Cyprus	1,000	1.35	18.05
Ecuador	1,202	1.62	19.67
Estonia	1,533	2.07	21.74
Palestine	1,000	1.35	23.09
Germany	2,046	2.76	25.86
Ghana	1,552	2.10	27.95
Iraq	1,200	1.62	29.57
Japan	2,443	3.30	32.87
Kazakhstan	1,500	2.03	34.90
Jordan	1,200	1.62	36.52

South Korea	1,200	1.62	38.14
Kuwait	1,303	1.76	39.90
Kyrgyzstan	1,500	2.03	41.93
Lebanon	1,200	1.62	43.55
Libya	2,131	2.88	46.43
Malaysia	1,300	1.76	48.18
Mexico	2,000	2.70	50.88
Morocco	1,200	1.62	52.50
Netherlands	1,902	2.57	55.07
New Zealand	841	1.14	56.21
Nigeria	1,759	2.38	58.58
Pakistan	1,200	1.62	60.20
Peru	1,210	1.63	61.84
Philippines	1,200	1.62	63.46
Poland	966	1.30	64.76
Qatar	1,060	1.43	66.19
Romania	1,503	2.03	68.22
Russia	2,500	3.38	71.60
Rwanda	1,527	2.06	73.66
Singapore	1,972	2.66	76.33
Slovenia	1,069	1.44	77.77
Zimbabwe	1,500	2.03	79.80

Spain	1,189	1.61	81.40
Sweden	1,206	1.63	83.03
Trinidad and Tobago	999	1.35	84.38
Tunisia	1,205	1.63	86.01
Turkey	1,605	2.17	88.18
Ukraine	1,500	2.03	90.20
Egypt	1,523	2.06	92.26
United States	2,232	3.01	95.27
Uruguay	1,000	1.35	96.62
Uzbekistan	1,500	2.03	98.65
Yemen	1,000	1.35	100.00

## APPENDIX B: WVS VARIABLES AND DESCRIPTION

Variable	Obs	Unique	Mean		Min	Max	Label
A001 73745	4	1.09004	1	4	Important in	life: Family	
A002 73601	4	1.667151	1	4	Important in	life: Friends	
A003 73158	4	1.865059	1	4	Important in	life: Leisure tin	ne
A004 72725	4	2.63109	1	4	Important in	life: Politics	
A005 72760	4	1.530003	1	4	Important in	life: Work	
A006 72854	4	1.925701	1	4	Important in	life: Religion	
A008 73346	4	1.857838	1	4	Feeling of ha	appiness	
A009 73752	4	2.099563	1	4	State of healt	th (subjective)	
A165 71999	2	1.745858	1	2	Most people	can be trusted	
A168A71479 advantage of		5.805076 point scale)	1	10	Do you think	c most people tr	y to take
A170 73523	10	6.873917	1	10	Satisfaction	with your life	
A173 72742 control	10	7.125416	1	10	How much fr	reedom of choic	ce and
A189 71686	6	2.780487	1	6	Schwartz: It	is important to	this
person to thin	k up ne	w ideas and be	creativ	e			
A190 72015		3.811164	1	6	Schwartz: It	is important to	this
person to be r	ich						
A191 72483	6	2.36272	1	6	Schwartz: It	is important to	this
person living	in secu	re surroundings	8				

A192	72147 6	3.215837	1	6	Schwartz: It is important to this				
person to have a good time									
A193	27294 6	2.309299	1	6	Schwartz: It is important to this				
person	to help the peo	ople nearby							
A194	71842 6	2.92645	1	6	Schwartz: It is important to this				
person	being very suc	ecessful							
A195	71612 6	3.752807	1	6	Schwartz: It is important to this				
person	adventure and	taking risks							
A196	72285 6	2.547527	1	6	Schwartz: It is important to this				
person	to always beha	ave properly							
A197	72357 6	2.513855	1	6	Schwartz: It is important to this				
person	looking after t	he environment	t						
A198	72520 6	2.513486	1	6	Schwartz: It is important to this				
person	tradition								
A199	68966 6	2.483949	1	6	Schwartz: It is important to this				
person	to do somethin	ng for the good	of socie	ety					
C006	73463 10	5.93673	1	10	Satisfaction with financial situation				
of hou	sehold								
E001	70962 4	1.680012	1	4	Aims of country: first choice				
E002	68914 4	2.568767	1	4	Aims of country: second choice				
E003	71298 4	2.022932	1	4	Aims of respondent: first choice				
E005	71380 4	1.820622	1	4	Most important: first choice				
E023	73397 4	2.63256	1	4	Interest in politics				
E033	54501 10	5.730665	1	10	Self positioning in political scale				

E035	71707	10	5.3988	359	1	10	Incom	ne equality
E036	69647	10	5.612718		1	10	Privat	e vs state ownership of
business								
E037	72350	10	6.5286	666	1	10	Gover	nment responsibility
E039	71592	10	3.7589	04	1	10	Comp	etition good or harmful
E040	72221	10	4.0771	.38	1	10	Hard v	work brings success
E041	70425	10	6.3512	211	1	10	Wealt	h accumulation
E069_	02	70285	4	2.1492	264	1	4	Confidence: Armed Forces
E069_	04	71878	4	2.6384	157	1	4	Confidence: The Press
E069_	05	64319	4	2.7363	392	1	4	Confidence: Labour Unions
E069_	_06	72385	4	2.3629	976	1	4	Confidence: The Police
E069_	07	70457	4	2.7369	918	1	4	Confidence: Parliament
E069_	08	69453	4	2.5769	923	1	4	Confidence: The Civil
Services								
E069_	_10	72483	4	2.5298	376	1	4	Confidence: Television
E069_	_11	71553	4	2.5643	309	1	4	Confidence: The Government
E069_	12	68395	4	2.9226	584	1	4	Confidence: The Political
Parties	S							
E069_	_13	68822	4	2.5041	185	1	4	Confidence: Major
Comp	anies							
E224	70768	10	6.3159	948	1	10	Demo	cracy: Governments tax the
rich ar	nd subsi	dize the	poor.					
E233A	A 70468	10	5.9602	223	1	10	Demo	cracy: The state makes
people's incomes equal								

E233B 69862	10	6.006942	1	10	Democracy:	People obey their rulers		
E235 72095	10	8.356904	1	10	Importance of	of democracy		
E236 67365	10	6.006205	1	10	Democratic	ness in own country		
G019 68962	4	2.031336	1	4	I see myself	as a world citizen		
H006_01	69423	4 2.095	5401	1	4 Worn	ries: Losing my job or		
not finding a job								
H006_02	68131	4 2.048	8099	1	4 Worn	ries: Not being able to		
give one's chi	ldren a	good educatio	n					
H008_01	72959	3.491	948	1	4 Frequ	uency you/family (last		
12 month): Go	one wit	hout enough fo	ood to ea	ıt				
H008_04	72709	3.117	743	1	4 Frequ	uency you/family (last		
12 month): Go	one wit	hout a cash ind	come					
S002 74042	1	6 6	6		Wave			
S003 74042	52	485.1485	12	887	Country/regi	ion		
S003A 74042	53	502.4187	12	901	Country/regi	ions [with split ups]		
S006 74042	9392	48043.69	1	13946	004 Origi	inal respondent number		
S007 74042	74042	4.85e+09	1.21e-	+08	8.87e+09	Unified respondent		
number								
S017 74042	4089	1.000023	.05068	866	22.79056	Weight		
S019 74042	4107	1.053482	.0356	78	16.04216	Equilibrated weight-		
1500								
S020 74042	5	2011.763	2010	2014	Year survey			
S024 74042	52	4857.485	126	8876	Country - wa	ave		
S025 74042	52	4853497	12201	3	8872014	Country - year		

survse	lf	0	0		•	•	SURVIVAL/SELF-EXPRESSION
VALU	IES						
tradrat	5	0	0				TRADITIONAL/SECULAR
RATIO	ONAL V	VALUE	S				
X001	73988	2	1.5265	18	1	2	Sex
X002	73860	86	1969.3	43	1912	1999	Year of birth
X003	73909	83	42.289	32	16	99	Age
X007	73819	6	2.6845	39	1	6	Marital status
X023	66813	97	19.919	04	1	99	What age did you complete your
educat	ion						
X025	69200	8	5.0412	43	1	8	Highest educational level attained
X0250	CS	15938	117	614349	9.9	36021	840114 Education (country
specifi	c)						
X028	73694	8	3.2855	73	1	8	Employment status
X036	3442	13	34.454	.97	13	61	Profession/job
X044	68176	4	2.0364	5	1	4	Family savings during past year
X045	72089	5	3.2530	07	1	5	Social class (subjective)
X047	71425	10	4.8961	43	1	10	Scale of incomes
X048	70433	653	488593	3.2	12104	887019	Region where the interview
was co	onducted	1					
X049	54637	8	4.9408	64	1	8	Size of town
X052	57550	4	1.9118	85	1	4	Institution of occupation
Y001	68231	6	1.8999	28	0	5	Post-Materialist index 12-item

Y002 69722 3 1.714351 1

3

Post-Materialist index 4-item