

## Research Statement

I consider myself **an empirical economist with a focus on economic growth and behavioral economics and a general interest in many empirical issues in economics**. My work does not always fall neatly within my fields of specialization as I choose my projects based on whether I have something new or interesting to say about them rather than how they fit into my “area.” For me, it has always been about ideas. In my empirical work, I have generally tried to quantify things and test theories.

My research can be broadly classified into three main areas: economic growth and macroeconomics, behavioral economics, and applied econometrics that often makes use of the regression discontinuity design. In what follows, I will briefly describe my research in each area. The following table lists my papers in each field, including published papers, working papers, and work in progress (or future research).

## My Research Papers in Each Field

### Economic growth & Macroeconomics

1. Wong, Wei-Kang. 2004. “How Good Are Trade and Telephone Call Traffic in Bridging Income Gaps and TFP Gaps?” *Journal of International Economics*, 64(2): 441-463.
2. Wong, Wei-Kang. 2006. “OECD Convergence: A Sectoral Decomposition Exercise.” *Economics Letters*, 93(2): 210–214.
3. Wong, Wei-Kang. 2007. “Economic Growth: A Channel Accounting Exercise.” *The B.E. Journals in Macroeconomics (Topics)*, 7(1): Article 4.
4. Wong, Wei-Kang. 2008. “Comparing the Fit of the Gravity Model for Different Cross-Border Flows.” *Economics Letters*, 99(3): 474-477.
5. Wong, Wei-Kang. 2012. “Consumption Response to Government Transfers: Behavioral Motives Revealed by Savers and Spenders.” *Contemporary Economic Policy*, 30(4): 489-501.
6. Koh, Melvin, and Wei-Kang Wong. “The Channels of Conditional Convergence: Allowing for Variable Capital Shares.” *Work in Progress*.
7. Foo, Qixiang, Lau, Zhengyi, and Wei-Kang Wong. “Does central bank independence reduce the incidence or severity of banking and currency crises?” *Work in Progress*.

### Behavioral Economics

1. Wong, Wei-Kang. 2007. “Nominal Increases and the Perception of Likelihood.” *Economics Letters*, 95(3): 433-437.
2. Wong, Wei-Kang. 2008. “How Much Time-Inconsistency Is There and Does It Matter? Evidence on Self-Awareness, Size, and Effects.” *Journal of Economic Behavior & Organization*, 68(3-4): 645-656.
3. Knetsch, Jack L., and Wei-Kang Wong. 2009. “The Endowment Effect and the Reference State: Evidence and Manipulation.” *Journal of Economic Behavior &*

*Organization*, 71(2): 407-413.

4. Koh, Weining, and Wei-Kang Wong. 2012. "Do Procedural Details Matter for the WTA-WTP Gap When the Other Controls for Subject Misconceptions Are Present?" *Working Paper*.
5. Wong, Wei-Kang. 2011. "Multiple Proposers in Ultimatum Game: Simultaneous Offer versus Sequential Offer." *Working Paper*.
6. Liu, Haoming, and Wei-Kang Wong. "Can Superstitious Beliefs Affect Market Equilibrium? Personal Beliefs and Beliefs about Others." *Working Paper*.
7. Seah, Shawn, and Wei-Kang Wong. "Loss Aversion in the Singapore Housing Market." *Work in Progress*.
8. Yeo, Samuel, and Wei-Kang Wong. "The Effect of Macroeconomic Experiences on Investment Behavior." *Work in Progress*.

#### Applied Econometrics using the Regression Discontinuity Design

1. Sue, Eddie, and Wei-Kang Wong. 2010. "The Political Economy of Housing Prices: Hedonic Pricing with Regression Discontinuity." *Journal of Housing Economics*, 19(2): 133-144.
2. Wong, Wei-Kang. 2011. "Parental Valuation of Priority Admission to Primary Schools: The Effects of Academic Reputation and Choices." *Working Paper*.
3. Khaw, Kaimin, Jason Lau, and Wei-Kang Wong. 2011. "Does An Additional Year of Schooling Improve Skills in Reading, Mathematics and Science? Regression Discontinuity due to Imprecise Control over Birthdates." *Working Paper*.
4. Pan, Jessica and Wei-Kang Wong, "Are Employers Susceptible to Coarse Thinking? Implications for Wage Determination and Returns to Signaling." *Submitted for Publication*.

#### **Economic Growth & Macroeconomics**

My research in this area empirically investigates the channels through which economic growth and productivity convergence are achieved, with a focus on the mechanisms that lead to cross-country diffusion of ideas and technology. These findings have implications on whether there is any tendency for developing countries to catch up with more developed countries, and how.

Frankel and Romer (AER, 1999) use the gravity model or geographic factors to investigate the causal effect of trade on economic growth. In "**How Good Are Trade and Telephone Call Traffic in Bridging Income Gaps and TFP Gaps?**" (*Journal of International Economics*, 2004), I extend their methodology to compare trade and telephone call traffic as mechanisms for the cross-country diffusion of ideas and technology. Since the same geographic factors explain both cross-border flows, in using the gravity model to estimate trade's causal effect on income, it is necessary to also control for telephone traffic to avoid omitted variable bias. Using predicted trade and telephone traffic flows based on bilateral geographic, linguistic and colonial profiles between countries to instrument for actual trade and telephone call traffic, I find that telephone traffic has a quantitatively larger effect on cross-country income and productivity levels. If one accepts trade as a proxy measure of embodied idea

flows and telephone traffic as a measure of disembodied flows, these results suggest that disembodied idea flows rather than embodied object flows may be more important in bridging income gaps and idea gaps across countries.

Because there is some evidence that distance and a common language also affect bilateral merger and acquisition activity, in **“Comparing the Fit of the Gravity Model for Different Cross-Border Flows”** (*Economics Letters*, 2008), I extend the comparison to also include cross-country merger and acquisition flows, along with trade and telephone call traffic. The evidence suggests that the model works well for trade and telephone traffic, but less satisfactorily for merger and acquisition flows.

Frankel and Romer (AER, 1999) and Hall and Jones (QJE, 1999) investigate the channels through which trade and social infrastructure affect cross-country productivity differences, respectively. In **“Economic Growth: A Channel Accounting Exercise”** (*The B.E. Journals in Macroeconomics*, 2007), I extend their methodology to systematically decompose the channels through which any determinant of economic growth could operate into three channels: by promoting physical capital accumulation, human capital accumulation, or TFP growth respectively. The methodology combines growth accounting with cross-country regression analysis in an intuitive and natural way. The evidence suggests that TFP growth, not physical or human capital accumulation, is the main channel of operation for most determinants and it is also the main channel of conditional convergence in labor productivity. This suggests that conditional convergence may not be due to diminishing returns to factor accumulation as it is commonly assumed. Instead, this finding lends support to models of growth that emphasize the role of technological diffusion in growth and convergence.

In **“The Channels of Conditional Convergence: Allowing for Variable Capital Shares”** (*Work in Progress*), my former honors thesis student Melvin Koh and I investigate whether the previous results are sensitive to the assumption of constant capital share of income that is typically employed in the growth accounting exercise. We follow the research on income shares by Gollin (JPE, 2002) and Jones (2003). The evidence suggests that the results are robust to allowing variable capital shares.

In **“OECD Convergence: A Sectoral Decomposition Exercise”** (*Economics Letters*, 2006), I extend the above channel decomposition methodology to a related, but somewhat different setting: to decompose productivity convergence among OECD countries into contributions of productivity growth from different industrial sectors (such as manufacturing and services) and contribution from employment shift or restructuring between these sectors. This paper is motivated by the controversy on whether the manufacturing sector did lead to aggregate productivity convergence among the OECD countries – see Bernard and Jones (AER and REStat, 1996) and Sorensen (AER, 2001). The controversy arises because their methodology compares sectoral productivity levels across countries but sectoral Purchasing-Power-Parities (PPP's) that are needed for this comparison do not exist. My methodology bypasses this comparison and also allows us to estimate the contribution of employment shifts on aggregate productivity convergence. The evidence suggests that while productivity growth in the manufacturing sector has a large effect on OECD convergence, the effect is not statistically significant at the conventional levels. Furthermore, I find that the contribution to OECD convergence due to employment shift is economically small and statistically insignificant.

The next paper combines my interest in macroeconomics and behavioral economics. Following survey studies on price stickiness (Blinder 1994), wage stickiness (Bewley 1998), and inflation aversion (Shiller 1997), **“Consumption Response to Government Transfers: Behavioral Motives Revealed by Savers and Spenders”** (*Contemporary Economic Policy*, 2012) uses survey to empirically investigate how different behavioral motives may have affected the consumption and saving decisions of recipients of actual government transfers (i.e., the 2006 Progress Package) in Singapore. The survey summarized eight standard behavioral motives governing saving and consumption decision in response to tax cuts or transfers in plain English, and asked the respondents to choose the statements that best described how they felt about the transfers. I find that savers were mostly motivated by precautionary saving, followed by Ricardian equivalence, while spenders were mainly driven by rule of thumb and present bias. The bequest motive turned out to be unimportant. Older, better educated, and economically more well off individuals who were not liquidity constraint were more likely to be savers.

In **“Does central bank independence reduce the incidence or severity of banking and currency crises?”** (*Work in Progress*), my former honors thesis students Foo Qixiang, Lau Zhengyi and I empirically investigate whether central bank independence and its different components reduce the incidence and severity of currency and banking crises. We find that more independent central banks tend to be associated with lower incidence of currency crises but they seem to have no effect on banking crises. Specifically, the result appears to be driven by a particular component of central bank independence, called monetary financing of public deficits. This means that a more independent central bank that refrains from financing unsustainable government debt may be more effective in preventing currency crises. However, there is no robust evidence that more independent central banks reduce the severity of currency and banking crises once they occur. We check robustness by using different methods to identify currency and banking crises.

### **Behavioral Economics**

My research in this area empirically investigates whether alternative behavioral assumptions and theories based on insights from psychology describe some economic choices more accurately than standard economic models.

In **“Nominal Increases and the Perception of Likelihood”** (*Economics Letters*, 2007), I investigate whether people mistake nominal increases in likelihood as real increases in likelihood, in a way that is similar to money illusion documented by Fehr and Tyran (AER, 2001) and Shafir, Diamond, and Tversky (QJE, 1997). People do. The reason may be counterfactual thought: a nominal increase in the absolute number of chances makes it easier to mentally simulate success, contributing to more favorable beliefs about the likelihood of success. Furthermore, I find that a nominal increase in likelihood has a relatively small effect on individual's own perception of likelihood, but a large and robust effect on beliefs about the perception of likelihood by others.

I revisit this distinction between personal beliefs and beliefs about others in **“Can Superstitious Beliefs Affect Market Equilibrium? Personal Beliefs and Beliefs about Others”** (*Working Paper*). In this paper, my colleague Liu Haoming and I investigate whether superstitious beliefs held directly by only a fraction of the

population affect market equilibrium. Using data from multiracial Singapore, we find that apartments whose unit numbers end with 8, a number considered to be auspicious only by Chinese, are sold at 0.9% premium. On the other hand, apartments whose unit numbers end with 4, an inauspicious number only for Chinese, are sold at 1.5% discount. We ask how these discounts and premiums may arise when a significant fraction of the population (e.g., the Malays and Indians) has no superstitious beliefs with regards to these numbers and they outnumber the supply of apartments with these unit numbers. We argue that in addition to search friction, indirect beliefs or beliefs about others (Fehr and Tyran, 2001) may also be important because of the prospect for resale. We find that the discount for inauspicious number is insensitive to the immediate prospect of finding a superstitious buyer. The discount for inauspicious number also applies to uncompleted units that were most likely bought for investment or speculation and subsequently sold before the units were ready for occupancy. This evidence suggests that the discount reflects buyers' beliefs about others in the future resale market rather than their personal preferences. There is also evidence that the presence of superstitious buyers has changed the price dynamics, making arbitrage difficult.

Classical theories assume that people always behave time-consistently. In **“How Much Time-Inconsistency Is There and Does It Matter? Evidence on Self-Awareness, Size, and Effects”** (*Journal of Economic Behavior & Organization*, 2008), I investigate whether people are time-consistent, i.e., whether they behave according to plan, and they plan according to what is optimal from the long-run perspective. The identification strategies of most existing studies – such as finding evidence of people voluntarily imposing self-limiting “commitment devices” on themselves (Wertenbroch, 1998; Trope and Fishbach, 2000; Ariely and Wertenbroch, 2002) or using survey evidence of people's ideal and predicted intertemporal allocation in a hypothetical two-period consumption problem (Ameriks, Caplin, Leahy, and Tyler, 2007) – while very convincing and interesting, cannot distinguish the time-consistent from the naïfs, or the partial naïfs from the sophisticates. This paper may be among the first to empirically identify all four types of time-consistent and time-inconsistent behaviors – time-consistency, naïve, partially naïve, and sophisticated time-inconsistency – and measure their size and effects. Using students' predicted and unpredicted delays in midterm preparation in the university as measures of time-inconsistency and self-awareness, I find that time-inconsistent behavior is prevalent and though most are at least partially aware of their time-inconsistency, time-inconsistency has real effect on class performance, which students tend to underestimate.

The endowment effect – the increased value of a good to an individual when the good becomes part of the individual's endowment – is often thought to be evidence for prospect theory, which posits an asymmetry in preferences for gains and losses such that changes in the domain of losses are valued more than commensurate changes in the domain of gains – a phenomenon known as loss aversion (Kahneman and Tversky, 1979). On the contrary, classical theory assumes no loss aversion. Recently, two papers by Plott and Zeiler (AER, 2005, 2007), or PZ henceforth, question this interpretation and report some evidence that these laboratory findings may be attributed to experimental procedures that fail to control for classical incentives and subject misconceptions. In two papers titled **“The Endowment Effect and the Reference State: Evidence and Manipulation”** (*Journal of Economic Behavior & Organization*, 2009) and **“Do Procedural Details Matter for the WTA-**

**WTP Gap When the Other Controls for Subject Misconceptions Are Present?"** (*Working Paper*), my coauthors – Jack Knetsch in the first paper and my former honors thesis student Koh Weining in the second paper – and I revisit the laboratory findings of “endowment effect”. We argue that when PZ control for these confounds, their procedures may also have weakened the reference states from which gains and losses were evaluated and these procedurally induced weak reference states may also account for their findings of no endowment effect, despite people actually having asymmetric preferences for gains and losses.

To test this hypothesis, we examine two kinds of laboratory evidence for endowment effect: first, a statistically significant gap between willingness to accept (WTA) to give up a good and willingness to pay (WTP) to acquire a good (**Koh and Wong, 2012**), and second, an exchange asymmetry in the form of a reluctance to exchange an arbitrarily endowed good for an otherwise comparable alternative good (**Knetsch and Wong, 2009**). We strengthen the reference states while attempting to control for potential confounds suggested by PZ and we still find evidence of an endowment effect. Thus, our results suggest that the endowment effect may be turned on and off by different experimental procedures, not because different procedures induced or eliminated various subject misconceptions or classical incentives, but most likely because they strengthened or weakened the reference states, making gains and losses more or less salient.

In a standard ultimatum game, a “proposer” divides some amount of money between himself and a “recipient” by making a take-it-or-leave-it offer to the recipient. Some researchers have extended the game to the case of multiple proposers to investigate the effect of competition on sharing behavior (for example, Roth et al., 1991; Fischbacher et al., 2009). In “**Multiple Proposers in Ultimatum Game: Simultaneous Offer versus Sequential Offer**” (*Working Paper*), I adopt their framework to compare sharing behavior when two proposers make offers to a single recipient simultaneously or sequentially, where Nash equilibrium predicts polar opposite sharing behavior. It turns out that competition did raise the offers. Nevertheless, there were significant deviations from Nash equilibrium, especially in the first stage of sequential offers, where the proposers shared and the recipients demanded more. Specifically, the recipients were quite likely to reject even split by the first proposer in sequential offers, resulting in first mover disadvantage and inequity to the first proposer in the sequential setting.

Following Genesove and Mayer (2001), in “**Loss Aversion in the Singapore Housing Market**” (*Work in Progress*), my former honors thesis student Shawn Seah and I find evidence of loss aversion among sellers of private properties in Singapore. We differ from Genesove and Mayer (2001) in that we explicitly allow and test for different effects for gains and losses, as well as diminishing sensitivity as gains and losses become larger. The finding provides further support for loss aversion and prospect theory.

Malmendier & Nagel (2011) examine the effect of learnt experiences on financial risk-taking and participation in the equity market. In “**The Effect of Macroeconomic Experiences on Investment Behavior**” (*Work in Progress*), my former honors thesis student Samuel Yeo and I adopt their framework to explore how individuals' past macroeconomic experiences affect their investment behavior, including their investment in the real estate market. Using data from the Panel Study of Income Dynamics (PSID), we find that individuals who have experienced higher returns in

the real estate market and stock market are more willing to invest in the respective markets. Specifically, the evidence suggests that they are more likely to participate in these asset markets, and they allocate a larger share of their total investment in these assets if they participate. Similar to the finding of Malmendier and Nagel (2011), more recent experiences have stronger effects on investment behavior, although experiences in the more distant past have a persistent effect. The results suggest that positive and negative past experiences have statistically equivalent effects.

### **Applied Econometrics**

I have been fascinated with the regression discontinuity (RD) design since I first heard about it in a labor economics class that Ken Chay taught at Berkeley, a class that I audited briefly near the end of my graduate study. A regression discontinuity design can be used to estimate the treatment effect when treatment is determined by whether an observed “assignment” variable exceeds an exogenous threshold, which typically arises from some institutional features or government policies. This design controls for omitted variable bias by comparing observations just above the threshold to those just below, which differ in their treatment status but tend to be similar in other dimensions.

My first application is on the political economy of housing prices in Singapore. The People's Action Party has ruled Singapore since independence. In its electoral campaign in recent years, the party has promised priority for public housing upgrading and higher quality estate management services in its constituencies. In **“The Political Economy of Housing Prices: Hedonic Pricing with Regression Discontinuity”** (*Journal of Housing Economics*, 2010), my former honors thesis student Eddie Sue and I use the RD design to empirically estimate the value of publicly provided local goods and services in the constituencies of the ruling party relative to those of the opposition parties. Following Black's (1999) methodology, to improve control for omitted variables that change smoothly over space, we compare the resale prices of public flats (i.e., HDB flats) that are near the electoral boundaries separating the constituencies of the ruling party and opposition parties. In some cases we find a moderate but highly statistically significant difference in housing prices across the electoral boundaries.

Similarly, in **“Parental Valuation of Priority Admission to Primary Schools: The Effects of Academic Reputation and Choices”** (*Working Paper*), I use the RD design to estimate the value of priority admission to good primary schools in Singapore. I exploit a balloting rule governing primary school admission in Singapore that creates a discontinuous change in admission probability at the 1km and 2km perimeters of popular primary schools where the demand for vacancy exceeds supply. To improve control for omitted variables that change smoothly across space, I compare resale prices of public flats that fall just inside the 1km and 2km perimeters of good schools to those that fall just outside. The evidence suggests that parents value schools with good performance or good progress in academic achievement.

In **“Does An Additional Year of Schooling Improve Skills in Reading, Mathematics and Science? Regression Discontinuity due to Imprecise Control over Birthdates”** (*Working Paper*), my former honors thesis student Khaw Kaimin, Jason Lau, and I investigate whether an additional year of schooling leads to significant skills and knowledge accumulation. We exploit exogenous variation in

student birthdates around the school entry cut-off date, causing students of similar age but different grade to take the same international standardized test. The evidence suggests that schooling does lead to skill and knowledge accumulation. Furthermore, in Singapore, students with more educated parents gain more from schooling, suggesting complementarity between human capital accumulation at home and in school. We will extend the analysis to the other countries later.

Coarse thinking is the tendency to group situations into categories and apply the same model of inference to all situations within a category (Mullainathan, Schwartzstein, and Shleifer, 2008). In **“Are Employers Susceptible to Coarse Thinking? Implications for Wage Determination and Returns to Signaling”** (*Working Paper*), my colleague Jessica Pan and I exploit the CAP thresholds governing the award of different classes of honors at the National University of Singapore to investigate whether coarse thinking can affect employers' wage offers to new entrants in the labor market. Specifically, when both coarse and fine measures of ability are available, does the coarse measure still matter in wage setting? Because students who narrowly miss the CAP cut-off to qualify for a certain honors class are comparable in terms of ability to students who narrowly exceed the CAP cut-off and obtain honors, we can test the extent to which employers use coarse heuristic rule in wage-setting by comparing the labor market outcomes of students on both sides of the CAP thresholds. Using data from Singapore, we find economically large and statistically significant jumps in early wages across arbitrary thresholds of cumulative average point (CAP) governing the award of different classes of honors, such that little correlation between wages and CAP remains once class of honors is controlled for. The effect is quite prevalent and persistent. This also implies that the signaling value of academic credentials in the market for higher education is potentially large.

### References cited

- Ameriks, John, Andrew Caplin, John Leahy, and Tom Tyler (2007), “Measuring Self-Control Problems,” *American Economic Review* 97, 966–972.
- Ariely, Dan, and Klaus Wertenbroch (2002), “Procrastination, Deadlines, and Performance: Self-Control by Precommitment,” *Psychological Science* 13, 219–224.
- Bernard, Andrew B., and Charles I. Jones (1996), “Productivity across Industries and Countries: Time Series Theory and Evidence,” *Review of Economics and Statistics* 78, 135–146.
- Bernard, Andrew B., and Charles I. Jones (1996), “Comparing Apples to Oranges: Productivity Convergence and Measurement across Industries and Countries,” *American Economic Review* 86, 1216–1238.
- Bewley, Truman F. (1998), “Why Not Cut Pay?” *European Economic Review*, 42(3–5), 459–90.
- Black, Sandra E. (1999), “Do Better Schools Matter? Parental Valuation of Elementary Education,” *Quarterly Journal of Economics* 114, 577–599.
- Blinder, Alan S. (1994), “On Sticky Prices: Academic Theories Meet the Real World,” in *Monetary Policy*, edited by N. G. Mankiw. Chicago, IL: University of Chicago Press, 117–50.
- Fehr, Ernst, and Jean Robert Tyran (2001), “Does Money Illusion Matter?” *American Economic Review* 91, 1239–1262.

- Fischbacher, Urs, Christina M. Fong, and Ernst Fehr (2009), "Fairness, Errors and the Power of Competition," *Journal of Economic Behavior and Organization* 72, 527-45.
- Frankel, Jeffrey A. and David Romer (1999), "Does Trade Cause Growth?" *American Economic Review*, 89(3): 379–399.
- Genesove, David and Christopher Mayer (2001), "Loss Aversion and Seller Behaviour: Evidence from the Housing Market," *Quarterly Journal of Economics*, 116(4), 1233–1260.
- Gollin, Douglas (2002), "Getting Income Shares Right," *Journal of Political Economy*, Vol. 110, No 2, pp. 458-474.
- Hall, Robert E. and Charles I. Jones (1999), "Why Do Some Countries Produce So Much More Output Per Worker than Others?" *Quarterly Journal of Economics*, 114(1), 83–116.
- Jones, Charles (2003), "Growth, Capital Shares, and a New Perspective on Production Functions." *Working Paper*.
- Kahneman, Daniel, and Amos Tversky (1979), "Prospect Theory: An Analysis of Decisions under Risk," *Econometrica* 47, 263–291.
- Malmendier, Ulrike, and Stefan Nagel (2011), "Depression Babies: Do Macroeconomic Experiences Affect Risk-Taking?" *Quarterly Journal of Economics* 126(1), 373-416.
- Mullainathan, Sendhil, Joshua Schwartzstein, and Andrei Shleifer (2008), "Coarse Thinking and Persuasion," *Quarterly Journal of Economics* 123(2), 577-619.
- Plott, Charles R., and Kathryn Zeiler (2005), "The Willingness to Pay-Willingness to Accept Gap, the 'Endowment Effect,' Subject Misconceptions, and Experimental Procedures for Eliciting Valuations," *American Economic Review* 95, 530–545.
- Plott, Charles R., and Kathryn Zeiler (2007), "Exchange Asymmetries Incorrectly Interpreted as Evidence of Endowment Effect Theory and Prospect Theory?" *American Economic Review* 97, 1449–1466.
- Roth, Alvin E., Vesna Prasnikar, Masahiro Okuno-Fujiwara, Shmuel Zamir (1991), "Bargaining and Market Behavior in Jerusalem, Ljubljana, Pittsburgh, and Tokyo: An Experiment Study." *American Economic Review* 81, 1068-1095.
- Shafir, Eldar, Peter Diamond, and Amos Tversky (1997), "Money Illusion," *Quarterly Journal of Economics* 112, 341–374.
- Shiller, Robert J. (1997) "Why Do People Dislike Inflation?" in Reducing Inflation: Motivation and Strategy, edited by C. Romer and D. Romer. Chicago, IL: University of Chicago Press, 13–70.
- Sørensen, Anders (2001), "Comparing Apples to Oranges: Productivity Convergence and Measurement across Industries and Countries," *American Economic Review* 91, 1160–1167.
- Trope, Yaacov, and Ayelet Fishbach (2000), "Counteractive Self-Control in Overcoming Temptation," *Journal of Personality and Social Psychology* 79, 493–506.
- Wertebroch, Klaus (1998), "Consumption Self-Control by Rationing Purchase Quantities of Virtue and Vice," *Marketing Science* 17, 317–337.