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## Old Habits Are Hard to Change: A Case Study of Israeli Real Estate Contracts

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This article presents a case study on the persistent dollarization norm in the Israeli real estate market. For many years Israeli real estate contracts have been denominated in American dollars. This contracting norm has remained surprisingly stable despite tremendous changes in the structure of the Israeli foreign currency market that severed the connection between the dollar and local inflation and added significant risks to exchange rates. Using an array of theoretical tools, I explain this puzzling phenomenon and demonstrate the centrality of social norms to the design of high-stakes contracts. Finally, I explore the interaction between social norms and the law and highlight the potential obstacles to regulating contracting norms.

Imagine you live in Xavierland. Xavierland is a modern stable economy with low inflation and a liberal foreign currency market. Its local currency, the Xavier Dollar, tends to fluctuate according to different developments in Xavierland and abroad. Like other residents of Xavierland you earn a salary paid in Xavier Dollars. Now also imagine that you wish to rent an apartment to live in. After some calculations you have figured that you can spend one-third of your salary on housing. In which currency would you want to specify the price of housing: American or Xavier Dollars? Now let us switch sides. Imagine that the main asset you own is an apartment in Xavierland. You rent it out in order to finance your consumption, which is mostly quoted in Xavier Dollars. In which currency would you want to rent your apartment: American or Xavier Dollars?

Until recently Israelis tended for the most part to set prices in real estate contracts in American dollars (hereinafter, dollars). On its face this behavior is puzzling. Why would two parties living in Israel, who spend and earn Israeli shekels (hereinafter, shekels),

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wish to index one of their most substantial financial obligations to a volatile index such as a foreign currency? Given this puzzling phenomenon, I embarked on a case study that aimed to describe the rise of this unique contracting norm and its persistent use in the face of changing economic circumstances. In a rare turn of events, in the midst of my conducting the case study, the United States went through a financial crisis that brought about an unprecedented decline in the value of the dollar. This crisis, in turn, caused the quick and sudden demise of the dollarization norm, giving me the unique opportunity of studying the shift of norms as they unfolded. Thus, while this article started as a project dealing with the phenomenon of sticky contract terms, it ended up dealing with the unique dynamics that can bring about changes in such terms.

Aside from its descriptive aspects, I also attempt in this article to explain the documented behavior by drawing from several bodies of literature. I begin by turning to traditional economic work dealing with price adjustments and indexing in long-term contracts (Goldberg 1985; Renner 1999). This literature has demonstrated the role of indexing in promoting efficient contracts by dealing with issues such as the attitudes of the contracting parties toward risk and their need to control opportunistic behavior over the duration of the contract. Nonetheless, as becomes clear from the case study, these theories do not present a full explanation for the behavior observed in the Israeli real estate market. Thus, I turn to explore alternative theories of contract design, which focus on the role of social norms and conformity (Macaulay 1963; Young & Bruke 2001). These theories suggest that contracting parties do not function in a vacuum and that the choices made by other contracting parties may affect contract design. Finally, I present studies from the area of cognitive psychology that may shed additional light on the behavior documented in this study (for an early contribution to this literature in the legal setting see Jolls et al. 1998). More specifically, these studies indicate that an array of cognitive biases may affect contract negotiations in a way that impedes contracting out of socially accepted terms.

Methodologically the article is part of the growing field of qualitative case studies of contracting. Building on the seminal work of Macaulay, many scholars writing on contracts and commercial transactions have recently turned their attention to qualitative work (for some examples see Bernstein 1992, 2001; Gulati & Scott 2009; Mann 1997; White & Ben-Shahar 2005). These studies examine the behavior of contracting parties in light of existing theoretical predictions and contribute tremendously to an understanding of issues such as reputational bonds (Bernstein 1992), secured credit (Mann 1997), hold-up problems (White & Ben-Shahar 2005), default rules (Bernstein 1996), contract formation

(Keating 2000), and the role of contract law in general (Weintraub 1992). The unique setting of this study differs from existing case studies in several theoretical and practical regards. First, the study examines contracts used by the general public and not by a distinct contracting group, as is the case in much of the existing literature (for prominent examples see Bernstein 1992; White & Ben-Shahar 2005). Because social norms tend to emerge in closely knit communities (Ellickson 1991:167–70), expanding the discussion to broader communities may offer new insights to the contracting norms literature. Second, the study focuses on a single provision, namely, the pricing provision. This provision is of unique importance because many theories assume that contracts include well-functioning pricing mechanisms that reflect the allocation of risks. Finally, the study deals with a norm that was of concern to policy makers and was therefore regulated by the Israeli legislature. Thus, it offers an opportunity to explore the interaction between law and contracting norms.

Aside from its legal aspects, the article also relates to the vast economic literature on the role of dollarization in developing countries. This literature has presented stylized models of the phenomenon (Cook 2004; Craig & Waller 2004; Uribe 1997) and documented it empirically (Barajas & Morales 2003; Rennhack & Nozaki 2006). Despite the growing interest among economists in dollarization, the economic literature on the topic is incomplete at several levels. First, economists have for the most part focused on macrolevel dollarization and explored aggregate data on bank deposits and firm debt. By contrast, I explore microlevel contracting decisions that individuals make. Second, economic models by their very nature explore narrow questions using simplifying assumptions. In this article I try to present the rich body of theories that help reach a deeper (alas, less elegant) understanding of the behavior at hand. Finally, economists tend to ignore the role that law plays in dealing with some of the problems associated with dollarization. I deal with this question directly and explore the effects of the legislative attempt to deal with dollarization in Israel.

The case study presented in this article deals with a very specific market, namely, the Israeli real estate market. Nonetheless, the article presents several general insights that shed new light on a broad array of theoretical questions. First, I bring to the forefront the phenomenon of social default terms and present evidence on how social norms can structure contracts not only within small discrete contracting communities, but among the general population as well. Second, I evaluate the difficulties that contracting parties face in contracting around socially accepted contract terms. This evaluation demonstrates that fully rational, well-informed parties may form suboptimal contracts despite low transaction costs

and extremely high stakes. Finally, I explore the relation between contracting norms and the law. The study shows that such norms may prove to be surprisingly stable in the face of legislation attempting to unravel them.

The article is organized as follows: After this brief introduction, I describe the qualitative research methods employed in this study. I then report on the use of indexing mechanisms in real estate contracts in Israel. I document the prevalence of the dollarization norm, for several decades, and its sudden demise. Next I explore the reasons for the behavior observed in the market and suggest that its main explanation lies beyond traditional contract theories that focus on maximizing the contractual surplus. I then analyze the relationship between law and contracting norms. I detail the legal measures employed by the Israeli legislature in order to deal with the dollarization norm and their effects (or lack thereof) on the behavior of market players. Finally, the conclusion offers several suggestions for future research.

## **Research Method**

Given the subtle goal of the project—understanding the underlying factors explaining contractual behavior—the methods I employed were qualitative in nature. I conducted a total of 18 interviews in a semi-structured, open-ended manner. A set of pre-determined questions were used as initial probes, followed by more detailed questions. The interviews, which typically lasted half an hour to an hour, all took place at the workplace of the interviewees in order to encourage full and candid answers.

I conducted the majority of interviews (10) among real estate brokers. All brokers operate in the Tel Aviv market, and I randomly selected them from a population of several dozen offices operating in the city. Aside from one incident, all brokers who were approached gladly participated in the study. In addition, I conducted eight interviews with other players in the real estate market. Three interviews were with executives in the commercial real estate market (ranging from a marketing manager to the CEO of a publicly traded real estate firm), three interviews were with private parties who own real estate, and two interviews were with lawyers who specialize in real estate transactions (the first from a leading law firm that mostly deals with large real estate transactions, and the second from a small firm that mostly deals with minor transactions). I conducted these eight interviews in snowball fashion, beginning with the lawyers and radiating into the market. From a temporal perspective, as noted in the Introduction, the contracting norm that I studied unraveled during the time I was

conducting the interviews. Thus, while two-thirds of the interviews took place under the dollarization norm, a third of them took place after its demise. This division allowed me to examine in a qualitative fashion the “before” and “after” pictures of a large shock in the market.

While this group clearly does not represent all the players in the market during the relevant periods of time, it does offer a wide spectrum of views on the issues at hand. In order to broaden and generalize the picture that can be drawn from the interviews, I supplement them with three additional sources of information. First, I present quantitative data collected by the Israeli Central Bureau of Statistics (ICBS) that is based on a national representative sample of rental contracts. In recent years the ICBS has assembled this data set as part of its calculation of the Consumer Price Index (CPI). While the data set covers very few years, and only includes information about the residential rental market, its representative structure and the fact that it is composed of several thousand contracts each year give it enhanced value. Second, I conduct a review of the stories in the real estate section of *The-Marker*, a leading Israeli financial newspaper. This review again allows me to document market behavior at a more general level. Finally, I present information from real estate classifieds published in one of Israel’s leading newspapers (*Ma’ariv*) and in the two major Web sites that publish such ads (*yad2* [<http://www.yad2.co.il>] and *homeless* [<http://www.homeless.co.il>]). As I explain in more detail below, I turned to these ads both to document the currency in which real estate owners chose to advertise and to identify desired contractual terms regarding indexing that were expressed in the ads. Given the organized archive of *Ma’ariv*, the data collected from the newspaper include all ads (of a particular type) during a period of six months. With respect to the Web sites, on the other hand, I was not able to gain access to their records. Thus, I only present anecdotal examples of Web-based ads from random days during the period of my study. The picture arising from these three sources confirms the picture arising from the interviews and enriches it with more information regarding the intricate details of market behavior.

## Dollar Indexing in Israeli Real Estate Contracts

In this part I describe my main findings regarding the contracting behavior observed in the Israeli real estate market. A good starting point for the discussion is the ICBS data that present the general patterns of contracting in the market. In Table 1 I present

**Table 1.** Percentage of Dollar and Shekel Pricing in Israeli Real Estate Contracts

Pricing	2000 N = 3,547	2001 N = 4,443	2002 N = 6,109	2003 N = 7,738	2004 N = 8,264	2005 N = 7,493	2006 N = 7,653
Dollar	98	98	96	94	91	88	87
Shekel	2	2	4	6	9	12	13

the data regarding the pricing mechanism employed in real estate contracts in the years 2000–2006.

The data demonstrate that in the documented period of time the vast majority of real estate contracts denominated the price in dollars. In addition, it is quite clear that in recent years there has been a gradual decrease in the use of dollars and a move toward shekel pricing. Turning to the content of the contracts, and viewing the indexing mechanisms employed in them, adds to the complexity of the picture. As Table 2 shows, there are four different such mechanisms: dollar-priced contracts are either indexed to the Representative Exchange Rate (RER) published by the Bank of Israel,<sup>1</sup> or set at a fixed rate; shekel-priced contracts are either indexed to the CPI, or include a fixed-price provision. Note that the rather peculiar fixed-dollar contracts are in effect fixed-shekel contracts, as during the duration of the contract they have a single pre-fixed shekel price that is determined by the fixed exchange rate chosen by the parties at the time of contracting. Thus, one can see that the actual drop in the use of dollars has been slightly higher than Table 1 reveals.

The picture arising from the ICBS data is confirmed by other sources at the relevant time as well. According to several real estate brokers in interviews conducted prior to 2008, most prices in the market were quoted in dollars, and an overwhelming majority of the contracts were indexed to the dollar. Furthermore, a look at the major Web sites advertising real estate classifieds reveals a similar picture. For instance, at the first search page of the Web site *yad2* on November 25, 2007, one could find 17 ads advertising dollar prices and four ads advertising shekel prices (four additional ads did not specify a price). In other words, approximately 80 percent of the ads were in dollars (information available upon request). This figure further demonstrates the large use of dollar pricing and the downward trend in previous years continuing into 2007.

There are no quantitative data that can pinpoint exactly when the use of dollars became a prevalent phenomenon in the Israeli

<sup>1</sup> On Mondays through Fridays the Israeli Central Bank publishes the RER, which reflects the average of the different transactions conducted in the foreign currency market during the day.

**Table 2.** Percentage of Indexing Methods in Israeli Real Estate Contracts

Indexing Method	2000	2001	2002	2003	2004	2005	2006
RER	97.2	97.4	95.5	92.7	89.9	86.1	84.3
Fixed Dollar	0.5	0.3	0.8	1.1	1.3	2.1	2.4
Fixed Shekel	1.3	1.5	2.6	4.8	7.6	10.6	12.5
CPI	1	0.8	1.1	1.4	1.2	1.2	0.8

real estate market. Yet there seems to be a consensus among all current market players that it emerged as a way to cope with the inflation of the 1970s and the hyperinflation that plagued the Israeli economy in the early 1980s (Mirovski 2006). During the 1970s and 1980s, the Israeli economy suffered from a growing rate of inflation that eventually peaked at more than 450 percent per year in 1984–1985 (Fischer & Orsmond 2002:157–8). In such an economic setting, entering into long-term contracts that must specify a price in monetary terms becomes a thorny task, as any price the parties might agree on soon has little economic meaning. Using a firm currency such as the dollar can help the parties structure their relationship and overcome this problem.

In addition, if prices are not quoted in a firm currency, they need to be constantly adjusted upward in order to reflect market prices. Thus, while one could theoretically quote real estate prices in shekels and adjust them to inflation, in a period in which, as a regular matter, the shekel price at the end of the week was significantly higher than the one at the beginning of the week, it is impractical to do so because real estate assets tend to be on the market for extended periods. As for indexing contract prices to the dollar, this measure promises parties that the monetary sums specified in the contract will continue to have economic meaning over the duration of the contract and will not be eroded by inflation. Note that the parties could achieve this latter goal by indexing the contract price to alternative indexes, notably, the CPI. It seems that the main reason this mechanism has not been adopted has been the relative convenience of indexing to the dollar. The existence of the RER makes indexing to the dollar extremely easy, as it enables the parties to calculate the indexed contract price any day by simply multiplying the price by the RER. Indexing to the CPI, on the other hand, is more complicated because the index is published only once a month, 15 days after the end of the month. Thus, the parties may find it difficult (or even impossible) to calculate the contract price applicable on a specific day.

Yet changing economic circumstances have created problems in using dollars as a pricing and indexing device. In the 1970s and 1980s, the Israeli foreign currency market was highly regulated and the economy was closed to the free flow of capital (Ben-Bassat

2002). This allowed the central bank to control the exchange rate and calibrate it to local inflation. Thus, the dollar could serve as an easy-to-use proxy for general price changes in the market. During the 1990s this situation changed dramatically as the foreign currency market was deregulated and restrictions on the moves of capital were removed (Gottlieb & Blejer 2002). By May 1998, the market was almost completely unregulated, and as a result capital flows in and out of the country grew while the exchange rate volatility rose (Gottlieb & Blejer 2002:244). In this new world the exchange rate of the shekel was suddenly influenced by variables such as global interest rates, security and political stability in Israel, international trade, and the like. Hence, while in the age of controlled exchange rates, contracting parties looked at the dollar as a steady index that moves upward with inflation; in the era of an unregulated foreign currency market, exchange rates suddenly began to fluctuate both upward and downward with no necessary connection to local inflation (Ben-Tzur 2001).

The volatility of the exchange rate created a problem for contracting parties as it suddenly added to real estate contracts a new risk regarding the size of the payments under the contract. In order to cope with this problem, parties began to utilize a set of tools aimed at shielding the contract from exchange rate volatility. One of the basic ways to achieve this goal was by setting maximum and minimum dollar rates. In indexing provisions, this manifested itself in specified dollar ranges (Amit 2007). For example, if the dollar was trading at 4.00 shekels at the time of signing, the contract might specify that future payments would be limited to the range of 3.90–4.10. Similarly, with respect to pricing, parties often advertised prices in dollars while stating a minimum exchange rate for price calculations. For instance, in November 2007, when the dollar dropped below the 4-shekel mark, sellers continued to advertise prices in dollars but stated in their ads that the exchange rate for the calculation of the actual payments would be 4.2 shekels. Volatility risks also affected the design of the schedule of payments. In times of sharp changes in exchange rates, parties might behave in an opportunistic manner and try to manipulate the timing of the payment in order to gain more profits. In order to cope with this type of behavior, parties constructed specific provisions that determined the exchange rate for late payments (Amit 2005). Finally, contracting parties engaged in an array of unilateral hedging activities in order to limit their risks. Such activities included purchasing call options, entering into forward transactions, and buying other dollar-oriented financial tools (Shforer 2007). Undoubtedly these tools managed to reduce (or even eliminate) the risks associated with shifts in exchange rates. Yet using them came at a significant cost (up to 1.2 percent of the transaction) that the parties had to bear.



An additional method to deal with problems arising from contract design was by trying to resolve them when the risk actually materialized, through *ex post* renegotiation of the contract. For instance, during periods of sharp devaluations of the shekel, parties faced a price that was much higher than they expected *ex ante*. This gap brought the parties in some instances to renegotiate the contract and reduce the actual shekel price by either setting a cap on the exchange rate or lowering the dollar price. As can be expected, the prospect of renegotiations depends to a large degree on the question of whether the transaction is a one-shot event or whether the parties intend to continue dealing with each other. Contracts for the transfer of ownership are mostly one-shot, high-stakes contracts, and the party gaining from the change in currency rates has little motivation to make any concessions regarding the price. As one broker put it, "People have rights, a contract is a contract. If a buyer asks to change the price when the dollar changes, the seller's lawyer will tell the seller that he's an idiot if he agrees to adjust the price." Rental agreements, on the other hand, reflect a long-term relationship that both parties might want to sustain. Thus, interviewees pointed out that in such contracts renegotiations were common in time of extreme fluctuations.

An interesting aspect of rental renegotiations is the reason for them. Rational choice models predict that parties will engage in renegotiations when this move serves *both* their interests (Bar-Gill & Ben-Shahar 2004). For example, if the tenant has a credible threat to breach (e.g., because the higher price will put the tenant in bankruptcy), it may be in the best interests of both parties to agree on a lower price that the tenant can afford to pay. Yet while some reports indicated that such credible threats played a role in rent renegotiations (Mirovski 2007a), the main reason stated for renegotiation by market players in this study was not necessarily the credibility of the threat, but rather the parties' perception of fairness, which required the landlord to forgo the unexpected windfall caused by the new exchange rate. As one broker put it, "In rental contracts parties do renegotiate if there is a large change. I always tell landlords that they should be fair with their tenants so that they stay. It's important to be fair."<sup>2</sup>

The last part of this story takes place during the beginning of 2008. In 2007, the subprime crisis emerged in the United States, as many borrowers defaulted on their loans. Over time this crisis

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<sup>2</sup> To be sure, renegotiation in this context can be interpreted as a rational step on behalf of landlords if they expect tenants to behave irrationally and breach the contract out of spite despite the fact that such a move is not in their best interest. Such behavior has been documented in ultimatum games in which the willingness of parties to irrationally reject offers they perceive as unfair causes the opposing party to choose to adopt a fair division. For a review of ultimatum game studies see Guth (1995).

affected the real economy and brought about a slowdown in growth rates. In the foreign currency market, the crisis manifested itself in an unprecedented decline in the value of the dollar. From the perspective of the Israeli real estate market, the subprime crisis created a new economic reality. In the period between July 2007 and March 2008 the dollar declined by more than 20 percent in comparison to the shekel.<sup>3</sup> At the same time, inflation in Israel rose by 2.4 percent (information from the Israeli Bureau of Statistics, <http://www.cbs.gov.il/reader>; further details available upon request). Thus, the risk associated with foreign currency rates materialized in an abrupt fashion, and parties found themselves bound by contracts that did not reflect the economic reality of the real estate market.

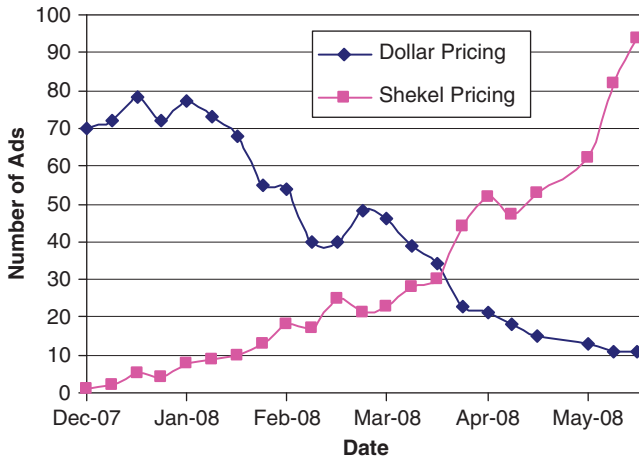
As a result of this new situation, the market went through a quick transformation from dollars to shekels. This can be seen clearly in the Web sites advertising real estate classifieds. For example, the site that had 80 percent of its ads in dollars on its first search page in November 2007 had more than 90 percent of its ads in shekels by July 2008. A more nuanced documentation of the demise of the dollarization norm can be seen by viewing the real estate ads in one of Israel's leading newspapers. As Figure 1 demonstrates, in the end of December 2008 the real estate market was still completely dominated by the dollar norm.<sup>4</sup> Yet five months later the market had already shifted to a shekel norm, and the vast majority of ads included shekel prices.

Before concluding this section, I would like to emphasize that the picture presented thus far has been of the private residential market alone. As it turns out, the picture in the commercial market (i.e., leases in office buildings, shopping malls, etc.) has been quite different. While the pricing in the commercial market followed the footsteps of the private market, and generally prices were denominated in dollars per square meter, the indexing was different. As several interviewees pointed out prior to the subprime crisis, the norm in the commercial real estate market was to convert dollar prices to a shekel price at the day of signing, and from that point to index the price to the CPI (Mirovski 2007b). One commercial realtor alluded to this difference and noted that "in the commercial market, people are more sophisticated. They understand the risks associated with dollar indexing."

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<sup>3</sup> The RER at the end of July 2007 was approximately 4.35 shekels per dollar, while by March 2008 the dollar was worth only approximately 3.35 shekels (RERs for each date available at Bank of Israel Web site: <http://www.bankisrael.gov.il/>).

<sup>4</sup> The data were collected from the archive of *Ma'ariv* and included all ads for two-bedroom apartments for sale in central Tel Aviv published in the weekend newspaper between December 21, 2007, and May 23, 2008. The data for the weekend of May 2 were omitted because the newspaper of that weekend was not archived.



**Figure 1. The Number of Shekel and Dollar Real Estate Ads Published in a Leading Newspaper**

In sum, I have demonstrated in this section how dollarization of Israeli real estate contracts became widespread during the days of hyperinflation, and how it remained prevalent despite the fact that the underlying economic circumstances changed tremendously when the Israeli foreign currency market was deregulated. In addition, I have noted the swift decline of the dollarization norm that came about after the subprime meltdown, and the large devaluation of the dollar. With this background in hand, I now turn to discuss in more detail the theoretical explanations for the observed behavior.

## Understanding Dollarization

In this section I review the different theoretical explanations for the behavior observed in the Israeli real estate market. I begin by examining the traditional economic theories of indexing and argue that they do not explain the persistent dollarization of the market. I then turn to explore theories of contracting norms and argue that they offer a more convincing explanation for the observed behavior. Finally, I suggest that several behavioral biases may have contributed to the stabilization of dollarization as a contracting norm.

### Traditional Explanations for Dollarization

The initial question that ought to be posed is why contracting parties choose to index the price in a contract. Presumably perfectly informed rational parties have no need to index the contract

price because they can always estimate *ex ante* the probability of different contingencies that will affect the value of the contract and price them appropriately with a fixed price contract. Despite this initial analysis, economists have offered several explanations for the widespread phenomenon of indexing. A first explanation is the need to allocate risks between the parties efficiently (Joskow 1977; Polinsky 1987; Posner & Rosenfield 1977). If neither party can effectively prevent a contractual risk from materializing (as is the case with exogenous market events) then the efficient bearer of risk is the party that can better hedge against it. Hedging can be conducted by transferring the risk to third parties such as insurance companies, consumers, or shareholders, or by pooling together a large number of risks. Indexing the price thus allows the parties to allocate risks associated with price shifts to the party that can better deal with them. For example, in a long-term contract for the supply of coal the parties may index the contract price to the spot market if the buyer can bear the risk of price shifts efficiently (by, for example, distributing this risk among its consumers). Alternatively, the parties may opt for a fixed-price contract if the seller can deal with the risk of price swings effectively (by, for example, building a diversified set of contracts).

Competing theories have argued that risk aversion alone cannot explain the different arrays of pricing schemes one observes (or fails to observe) in the market. Goldberg (1985), for example, points out the role of indexing in fostering efficient cooperation between the parties. Without indexing, contracting parties will not face correct price signals, and that, in turn, can create inefficient behavior that will decrease the value of the contract. If, for instance, the contract price drops below the market price, the buyer will have an incentive to overuse the product. In addition, a gap between the contract price and the market price may cause contracting parties to behave in a noncooperative fashion so as to evade performance and renegotiate the contract. In essence, a gap between the contract price and the market price could create a moral hazard problem in which the party that gains *ex post* from the gap behaves in a way that the parties would not have wanted *ex ante*.

Another explanation for indexing, according to Goldberg, is the effect of the contract price on *ex ante* expenditures of contracting parties on collecting information regarding future contingencies. The contract price establishes the division of the gains of trade between the parties. A party with more information about future contingencies can manipulate the price mechanism in order to increase its relative share of the surplus. That given, both parties have an incentive to expend resources in order to acquire such information. Price adjustment mechanisms remove some of the

private benefits a contracting party can gain from acquiring information that will affect future prices. Removing this incentive is beneficial for both parties as it prevents wasteful mutual search costs.

Viewing the body of theories on the matter suggests that they offer a convincing explanation for the initial adoption of dollarization because it helped parties deal in an efficient way with three main problems of contracting in an environment of hyperinflation (or even regular inflation). First, real estate contracts reflect large financial obligations that routinely tie up a large part of the parties' income and wealth. Indexing allowed risk-averse parties to limit the possibility that the value of the surplus they expected to gain from the contract would change dramatically due to inflation. Second, real estate contracts may create many chances for opportunistic behavior that can arise if the contract price diverges from the market price. For instance, a landlord may limit efficient maintenance that the parties would both agree on *ex ante* in order to encourage tenants paying below market rent to leave. In fact, the unexpected inflation in Israel in the 1970s and 1980s created a tremendous amount of litigation, as parties attempted to excuse themselves from performing contracts with prices that were not indexed (for a review see Renner 1991). Thus, *ex ante* parties at the time wanted to design a pricing mechanism that would assure that the landlord did not have incentives to try to drive the tenant to leave. Finally, estimating the risks associated with inflation in order to set an appropriate fixed price for the contract seems like a costly act that both parties could gain by avoiding. Indexing enabled them to avoid the need to speculate about future inflation rates.

Yet once the value of the exchange rate as a proxy for inflation diminished significantly, it is difficult to see how dollar indexing promoted the interests of contracting parties. To the contrary, dollarization *raised* the volatility of the contract price with no apparent economic justification. For example, a family that signed a contract to sell their apartment for \$300,000 on August 1, 2007, and agreed to receive half of that sum with the transfer of possession four months later, discovered that the shekel price they received was about \$15,000 less than what they anticipated.<sup>5</sup> Similarly, a family that signed a contract to buy an apartment for \$300,000 on December 15, 2001, and agreed to pay half of that sum with the transfer of possession four months later, found itself facing an

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<sup>5</sup> The RER on August 1, 2007, was 4.337, while the RER on December 1 was 3.83. These dates are not random and represent extreme points in the fluctuation of the dollar at the time (RERs for each date available at Bank of Israel Web site: <http://www.bankisrael.gov.il/>).

additional obligation equivalent to almost \$20,000.<sup>6</sup> By any account, these are significant sums for the average Israeli household. Furthermore, at times dollarization brought about outcomes that were in reverse to the trends in the real estate market. Take for example a security crisis in Israel (e.g., the terror attacks of 2001–2002). Such an event may cause a slowdown in the economy and lower the prices of real estate while causing foreign investors to withdraw their investments, bringing about a drop in the value of the shekel. In other words, declining market prices will be coupled by an increase in dollar-indexed contract prices. Similarly, an immigration wave from a wealthy nation (e.g., the immigration from France in 2005) could both raise the prices of real estate and strengthen the local currency, creating a large gap between the contract and market prices.

From all the perspectives discussed above, dollar indexing seems to have become over time a liability and not an asset for the parties. It inserted into the contract new risks associated with global currency markets that had little to do with the surplus the parties expected to gain from the contract. In addition, it raised the probability that the contract price will diverge from the market price, giving parties perverse performance incentives. And finally, it required both parties to estimate *ex ante* the potential volatility in exchange rates so that they could calibrate the contract price accordingly. Thus, as a theoretical matter it would seem as if Israelis had systematically designed their real estate contracts in a suboptimal fashion.

The evidence presented in the previous section supports the inefficiency hypothesis as well. First, the quantitative data documented a gradual decline in dollarization in the years leading to its sudden disappearance. While this decline might reflect growing heterogeneity, and that dollarization no longer fit some groups of society, its more likely interpretation is that people slowly learned the problems of dollarization and chose to opt out of it. Second, parties often adopted contractual mechanisms aimed at circumventing dollarization, such as setting maximum and minimum dollar rates in the contract. Yet it would seem as if the existence of such “solutions” indicates that dollarization itself was a problem for the parties. Finally, profit-maximizing commercial players did not index their contracts to the dollar. As such players are disciplined by market forces, it is reasonable to assume that they tend to shift quickly (or at least faster than individuals who are not disciplined

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<sup>6</sup> The RER on December 15, 2001, was 4.237, while the RER on April 15, 2002, was 4.793. These dates are not random and represent extreme points in the fluctuation of the dollar at the time (RERs for each date available at Bank of Israel Web site: <http://www.bankisrael.gov.il/>).

by the market) from an inefficient contract design to an efficient one. Thus, one can better learn from their observed behavior what the optimal contract design in a given economic setting was.

To be sure, one should not overstate the inefficiency associated with dollarization. While at the time dollarization emerged contracting without it (or an alternative similar mechanism) was simply not an option for the parties, in later years it probably represented a tolerable nuisance. Most of the time the dollar-shekel exchange rate fluctuated in a way that added to the volatility of contract payments for no apparent reason but did not threaten to completely undermine the parties' intentions. Only once every several years did something dramatic occur in the foreign currency market, which caused a large change in the value of the dollar and a transformation of contract prices. In other words, there was an asymmetry between the inefficiency associated with not adopting dollarization in the past and the inefficiency associated with its continued use for many years. This asymmetry ended only in 2008, when for the first time since its adoption dollarization became intolerably inefficient, and the contracting norm quickly unraveled.

### **Dollarization and the Default Rules Literature**

Given the apparent inefficiencies associated with the dollarization norm, I now turn to explore explanations for its persistence in the market for so many years. A good place to begin this endeavor is the literature dealing with legal default rules. In essence, dollarization was a form of default rule that was created by a social norm rather than by the law. Thus, if there are impediments to contracting around a legal default rule, they may also block contracting out of a social default term such as dollarization. One such impediment, which can be rejected at the outset, is the transaction costs associated with contracting around the default term. Generally, if the costs of contracting around an inefficient default term are greater than the inefficiencies generated by it, rational parties will not waste resources contracting around it. There are two reasons to assume that this was not the case with respect to dollarization. On the one hand, the costs of contracting around dollarization were minimal. Interviewees reported that contracting parties routinely negotiate the price itself and the terms under which it will be paid. Because the parties were negotiating the price provision anyway, doing some basic math and shifting from dollars to shekels should not have been a complicated task. This is particularly true with regard to large-scale transactions such as land transactions, where lawyers are often involved in drafting the contract. On the other hand, the stakes in question were extremely high. In most cases, real estate contracts represent one of the

largest financial obligations a private household makes. Thus, the potential benefit of optimizing the pricing mechanism of the contract seems to have been very large.

A second impediment to contracting out of a given default term is the information that may be revealed in the negotiation process (Ayres & Gertner 1989, 1992; Johnston 1990). A party suggesting to contract around a default term could signal by that act information about his or her nature. This, in turn, could cause the other party to demand a higher price or perhaps even forgo the entire relationship. Bernstein (1993), for instance, has suggested that in relational contracts a proposal to contract out of an accepted default term may be seen as a signal that the proposing party is litigious and tends to rely on legal rights. Ben-Shahar and Pottow (2006) took this claim a step further and argued that any deviation from the accepted contract term could be interpreted by the opposing party as a suspicious act and could therefore act against the proposing party. In other words, even if the deviation aims to serve the mutual interests of the contracting parties, the party proposing it will be charged a premium for deviating from the contracting norm and suggesting an unknown term. Similarly, Suchman (2003:110–14) has argued that contract terms may become “gestures” that carry an independent meaning. Such gestures could symbolize “commitment, seriousness, and finality, independent of the substance of any particular contract provision.” Thus, parties might be reluctant to propose a deviation from such a gesture.

In the context of this study, a suggestion to contract out of dollarization certainly ran against a contracting norm for many years, and in that sense it may have been construed as a suspicious attempt by the proposing party to redivide the contractual surplus. Furthermore, such a suggestion may have been perceived as an indication of uncooperativeness of the proposing party. As I have noted, in the event of large devaluations of the shekel parties tended to renegotiate the contract price *ex post* in order to sustain their relationship. Insisting on a legal remedy for this issue could have been seen as a signal that the proposing party would behave in a noncooperative fashion in the event of unforeseen contingences (price-related or others) that would require renegotiations.

### **Dollarization and Contracting Norms**

Another body of literature that could shed light on dollarization is the contracting norms literature. This literature demonstrates that reputational concerns and customs explain much of the way contracts are designed *ex ante* and performed *ex post*. In his seminal study of contractual relations between manufactures in



Wisconsin, Macaulay (1963) reported on the marginal role of law in structuring these relations and the central role of business norms. Following Macaulay's footsteps, researchers such as Bernstein (1992, 1996, 2001) and Esser (1996) continued to study the unique business norms governing contractual relations in different contracting communities. These studies have focused on the contracting parties and showed that in many cases social norms rather than contract terms or contract law structure their behavior.

A related strand of literature has similarly demonstrated the special role of lawyers in sustaining contracting norms (Flood 1991, 1996). This role of lawyers stems from two distinct forces. First, interfirm relations cause transaction lawyers to adhere to accepted contract terms in the negotiation process. In their study of contracting in Silicon Valley, for example, Suchman and Cahill (1996:704–5) document such a norm. As they note, when “contracts come to routinely incorporate clauses that have been ‘decided’ years before, lawyers may hesitate to rock the boat by overzealously promoting client interests on specific issues.” Second, intrafirm hierarchy may also drive lawyers to conform to existing contract terms. Hill (2001:71) has argued that because “following the standard makes avoiding a bad outcome—that is, a bad outcome for which the lawyer is blamed—easier and less costly,” junior associates will tend to follow the contractual norm and avoid contractual innovations. Thus, lawyers are expected to serve as a conservative force, encouraging parties to stick with tested contractual formulas.<sup>7</sup>

While existing studies have demonstrated the significant role of social norms in the contractual setting, they have not explored the role of social norms on the design of what may be the most important contract provision: the price. Young and Bruke (2001) began to overcome this gap in the literature and presented a case study of pricing of agricultural land leases in Illinois. Pricing in such leases is usually based on a division of the crops between the farmer and the land owner. Traditional economic theory would predict that in such a situation the percentage received by each party would diverge between contracts depending on the expected productivity of the land. Yet Young and Bruke report tremendous uniformity in pricing, and point out that more than 90 percent of the contracts adopted a  $\frac{1}{2}:\frac{1}{2}$  or  $\frac{1}{3}:\frac{2}{3}$  division (2001:560–1). They therefore suggest that contract terms may emerge around focal

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<sup>7</sup> To be sure, lawyers will not always impede contract innovation (see, for example, Powell 1993). When market forces are sufficiently strong lawyers may be incentivized to become norm entrepreneurs and develop new contract terms that serve their clients' interests better than existing terms.

points, and once a single focal point becomes prevalent conformity will cause people to continue using it.

The findings of this study suggest that conformity seems to be one of the forces that played a central role during the years of dollarization in the Israeli real estate market as well. Some interviewees described a rather simple picture involving an existing norm that does not change over time. As one broker explained, "It's just convenient to work with dollars—that's the habit." Yet this answer begs the obvious question: Why do people conform, especially if they are leaving money on the table while doing so? In order to answer this question I must turn to additional theories. As will be evident from the analysis, conformity in contracts is a complex phenomenon that is driven by two forces. The first is external—people choose to contract the way other people contract in similar situations. The second is internal—people prefer to continue contracting the way they did in the past. I now turn to explore external explanations for contractual conformity and leave the issue of internal motivations for the next subsection.

An external explanation for conformity can be found in theories dealing with network externalities in contracting. A network externality exists when people incur a benefit by adopting the same choices that others did (Lemley & McGowan 1998). For instance, I might choose to use a computer that operates with Windows® even if I find this operating system to be inferior, simply because I want to use the operating system that most of my colleagues use. Several studies have evaluated the effects of network externalities and path dependency in the legal setting in general (Roe 1996), and in the area of contractual relations specifically (Kahan & Klausner 1997; Kraus 1997; Lemley & McGowan 1998; Suchman 2003:121–3). These studies demonstrate that once certain contract provisions are adopted, subsequent contracts will tend to duplicate them because of the advantages associated with using existing provisions, and not necessarily because of their efficiency. For example, if a certain contract provision is already familiar to the courts, then that alone may cause rational parties to continue using it and not adopt a new provision that they cannot be certain how the courts will interpret.

The area of pricing provisions offers an additional example of network externalities. Price systems are a type of network because they allow people to compare products on a scale prior to making their choices in the market. Once a market has converged on a certain pricing mechanism, it may be difficult to shift to an alternative mechanism because consumers will find it complicated to compare the price of a product using the alternative mechanism with the prices of the rest of the products in the market. In the context at hand, individuals may have found it difficult to compare

the price of a shekel contract and a dollar contract because a complete comparison between the two contracts would have had to take into account the uncertainty associated with exchange rates. If, for example, someone rents an apartment for \$1,000 per month, that person can know for certain that this apartment is cheaper than an apartment that is offered for \$1,100 per month. Yet how does the renter treat an apartment that is priced at 4,000 shekels per month (assuming a 4.0 exchange rate)? True, the prices at the time of contracting are identical. But the overall difference between the two over the duration of the contract is unclear. This intuition can be seen in the remarks of one interviewee: "If all the time you're used to seeing prices in dollars, you're not going to ask me how much is it in shekels. Your head is set on dollars. When suddenly there is one apartment that has a shekel price, people don't understand, and it makes things more complicated."

A related aspect of the network effect of pricing can be found with respect to the platforms used to advertise real estate. Much of the real estate market in Israel is conducted in the two Web sites *yad2* and *homeless*. In order to ease the look for the appropriate asset, these Web sites allow users to search the ads along dimensions such as size, location, type of asset, etc. Obviously, because price is an important criterion, the sites also allow users to narrow their search according to maximal and minimal prices. Yet in order to facilitate a search prices must be aligned on one scale, and until the subprime crisis the sites only facilitated dollar-based searches. Thus, while owners of real estate were free to advertise their assets in whatever currency they wanted, if owners wanted their assets to come up as a search result, they were required de facto to quote their price in dollars. It was only in the beginning of 2008 as the dollarization norm unraveled that these sites allowed for shekel-based price searches and enabled parties greater freedom with respect to the currency in which they could advertise their assets.

Finally, the risks caused by volatile exchange rates may create an additional network effect in the real estate market. Residential real estate sales transactions are in many cases back-to-back transactions. In other words, the buyers in one transaction are the sellers in another. In this regard, the network of real estate contracts offered parties cover from changes in currency rates because at the same time they created a dollar obligation and a dollar entitlement. Yet note that again the efficiency of such a mechanism depends on the fact that a network of dollar contracts is functioning. If one would design the network anew, it might well be beneficial to design it as a shekel network.

In essence, one can view the situation the parties faced as a coordination game. Coordination games describe situations in which participating parties wish to choose a strategy that will complement

the choice of other players in order to achieve a mutually beneficial outcome. For example, a player might be indifferent to whether he or she was driving on either the righthand or lefthand side of the road, yet the player would want to make sure to drive on the same side as everyone else is. Note that both players in the driving game do not have a preference as to which of the two strategies will be chosen. If player A signals an intention to play right, player B will choose right as well; similarly, if player A signals an intention to play left, player B will choose left as well. Thus, both right-right and left-left could function as an equilibrium. Nonetheless, once the parties converge on a certain strategy in the game (a likely event in the case of repeated play), then they are both expected to choose to continue using this strategy.

One of the characteristics of coordination games is that they may generate a stable inefficient equilibrium if the payoff of the game changes over time (Lemley & McGowan 1998). Take for example the decision British drivers made regarding which side of the road to drive on. The initial game might have been similar to the one described above. That is to say, drivers were indifferent as to whether they drove on the right or drove on the left, as long as they all drove on the same side. So British drivers flipped a coin and chose left. Yet as time passed the cost structure of the game changed, because driving on the left side of the road caused costs such as limiting the ability to import cars from other countries and difficulties to both British drivers abroad and foreign drivers in Britain. Thus, while switching equilibriums and driving on the right might be in the best interest of British drivers as a whole, no individual driver has an incentive to do so. While this situation is not likely if the players are facing the first round of play, it is quite likely if the group started at some point in the past to choose collectively to play left. Hence, the group might find itself “stuck” in an inefficient equilibrium that all members of the group would like to move out of.

The coordination model not only explains the persistent use of a potentially inefficient norm, but also offers a prediction as to the demise of such a norm. Because players in a coordination game wish to converge on one strategy, the model suggests that one will not see prolonged periods of time in which players slowly shift from one equilibrium to the other. Rather, the model predicts that once a critical mass of players shifts from one norm to the other one, a cascade effect will occur where all players quickly converge on the new norm. Suchman (2003:133–5) has described this as the “contract cycle model.” According to Suchman, after an external shock causes a discontinuity in the contracting norm, a new norm will quickly emerge after a period of ferment. Choi and Gulati (2004) document such a cycle in the sovereign debt market. They demonstrate how the contracting norm changed in one large step after a

brief period of learning, and attribute this finding to coordination effects. Similarly, the fall of the dollarization norm in Israel in a relatively short period of time seems to indicate the significant role coordination had to do with observed behavior in this regard.

### **Behavioral Explanations for Dollarization**

Thus far I have focused on the external forces driving toward conformity. I now turn to explore how elements of the decision-making process of individuals can cause them to stick with old contracting habits. Cognitive psychology has documented an array of biases that cause people to systematically reach decisions that violate the predictions of rational choice theory. Following this literature, legal scholars have explored the implications of these phenomena on an array of legal questions, such as litigation behavior, the design of crime control systems, and more (for a review see Jolls et al. 1998). These studies demonstrate that the rational choice model may at times lead to inaccurate predictions regarding the way parties are expected to react to legal rules.

A first aspect of decisionmaking that may have hampered shifting out of dollarization is the status quo bias. Psychologists have documented that individuals tend to prefer sticking with the status quo and avoid decisions changing it. This tendency is related to the endowment effect, which causes people to demand a higher price in order to part from an entitlement compared to the price they are willing to pay in order to buy it (Kahneman et al. 1990). In the context of contract design, parties may view existing accepted contract terms as a type of entitlement and therefore demand a high premium in order to forgo a default term that they perceive to be beneficial for them (Zamir 1997).<sup>8</sup> This high evaluation could stand in the way of negotiating around the term because it will bring about a gap between the minimum price asked to forgo the term and the maximum price the opposing party is willing to pay. This theoretical conjecture has been documented in several empirical studies. Korobkin (1998a) tested it in a series of experiments in which he divided participants into groups and manipulated the default rule governing questions such as contract damages. The clear results were that despite identical payoff structures the groups preferred sticking with the default rule that was assigned to them. Similarly, Sunstein (2002) explored the willingness of law students to buy or sell two weeks of vacation time as part of their

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<sup>8</sup> As noted by Zamir, the application of the status quo bias to default rules is not straightforward, as in the case of default rules parties do not have any rights against each other prior to entering the contractual relationship. Nonetheless, as Zamir points out the parties may still perceive the rights created by default terms as such that create an entitlement.

negotiations for an employment contract with a law firm. As it turns out, students “endowed” with two additional weeks of vacation by the default rule demanded a significantly higher sum of money to forgo this right than the sum the students who were not endowed were willing to pay in order to gain it.

A related aspect of decisionmaking that may render the contractual status quo sticky is regret theory (Korobkin 1998b). The basic insight of regret theory is that undesirable outcomes that are caused by inaction bring about less regret *ex post* than undesirable outcomes that were caused by an active decision. The role of regret in decisionmaking has been documented in different settings utilizing an array of methodologies. For instance, using questionnaires, Samuelson and Zeckhauser (1988) explore the effect of regret on investment choices between high-risk stocks, moderate-risk stocks, treasury bonds, and municipal bonds. In their study, participants were randomly divided into groups. One group learned that it recently inherited cash that it now needed to invest in one of the four investment options. The other group, on the other hand, was informed that the inheritance already came in the form of one of the investment options. Participants then had to decide how to invest the inheritance in the future. Despite the fact that no transaction costs were associated with switching investments, participants in the second group demonstrated a strong tendency to stay with the status quo. Using a different methodology, Bar-Hillel and Neter (1996) explore the willingness of participants to switch lottery tickets when offered an array of incentives to do so. As they point out, a large portion of participants refused to trade tickets and preferred sticking with the ticket that was randomly assigned to them, despite the fact that both tickets reflected equal probabilities to win the lottery. According to Bar-Hillel and Neter, a world in which the original ticket wins after being traded represents a loss, while a world in which the original ticket does not win after not being traded represents a foregone gain. Since people tend to be averse toward losses, the identical tickets are not perceived as such, and the value of the original ticket is seen as higher.<sup>9</sup>

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<sup>9</sup> To be sure, despite the prominence of Bar-Hillel and Neter in the literature dealing with the stickiness of default rules, the application of their study to the area is not straightforward. In all the experiments on which Bar-Hillel and Neter report, subjects held a lottery ticket and were offered to switch to an unknown ticket. Thus, sticking with the existing ticket was easier from a regret perspective, because participants could not find out *ex post* whether the ticket they would have switched to was a winning ticket. In the context of default rules, on the other hand, people making a decision whether to switch bets are familiar with both options and therefore know that *ex post* they will be able to evaluate their wealth under both conditions. Thus, the more precise experiment relevant to the questions at hand would examine whether the reluctance to switch a ticket was sustained in a setting where participants are familiar with both lottery tickets. Regrettably, such experiments have yet to be conducted.

In the context of dollarization, one can view dollar indexing as a social norm that people perceive as the given state of the world associated with inaction. Hence, when individuals need to decide whether to contract around it, they may perceive their wealth under it as a kind of benchmark against which they evaluate their wealth *ex post*. Both differences in evaluations of the value of dollarization resulting from the endowment effect and fear of regret that opting out of dollarization will turn out to be a wrong choice can therefore cause parties to view dollarization as a desirable status quo. As one real estate lawyer put it: “A seller that sold his property when the dollar was 4.2 and then the dollar rose to 4.5 feels like an idiot.” In this regard, note that in the unique area of pricing provisions, it is not a mere possibility that switching the default term will cause a loss to one of the parties. Rather, because the pricing provision divides the contractual pie, it is *certain* that from a monetary perspective *ex post* one of the parties will gain and the other will lose from any switch. Thus, as long as the inefficiency associated with the risks created by dollarization is not sufficiently large, parties cannot agree to contract around it.

Another characteristic of decisionmaking under uncertainty that may have affected the ability of parties historically to contract out of dollarization is the concept of comparative ignorance (Fox & Tversky 1995). According to this theory, people are anxious that their adversaries have some kind of advantage (e.g., information, skill, etc.). As a result they prefer to stick to a known strategy that they are familiar with because they believe it may serve their interest better. Fox and Weber (2002) study a question closely related to the topic of this article and explore the willingness of players to bet on their knowledge of inflation rates. Interestingly, players (who were not trained as economists) were *less* willing to bet on inflation rates when they were provided with *additional* economic data that could help them reach an educated prediction. Fox and Weber speculate that the additional professional information triggered a perception of relative incompetence, which caused players to avoid the bet.

Turning back to dollarization, indexing contracts to the dollar was a familiar practice for most Israelis. A suggestion to contract out of that practice might have been seen as a sign that the suggesting party held superior information on future exchange rates and was attempting to get a larger part of the contractual surplus, rather than as a party that was trying to increase the surplus. Thus, the opposing party might have preferred sticking with the familiar contracting behavior and not opt for the suggested change. Indications to this line of thought can be found in some of the comments made by interviewees. As one of them put it, “I don’t know, it just seems really weird when someone asks to do it in shekels.

Like, does he know something that I don't?" To be sure, I am not suggesting that parties who proposed a deviation from dollarization actually held private information as to the expected trends in the foreign currency market. All I claim is that parties *perceived* other parties to hold superior information regarding expected currency rates. Furthermore, if the suggesting party attempted to rationalize a proposal by explaining to the opposing party different aspects of exchange rates and risk, this may have actually added to the feeling of comparative ignorance and could have exacerbated the bias, making agreement even more difficult.

In conclusion, in this section I reviewed an array of explanations, from the perspective of both rational choice theory and competing theories, for the persistent use of dollars in Israeli real estate contracts. The methodology employed in this article cannot offer a precise account of the different role each explaining theory played during the entire period of dollarization. Nonetheless, the swift demise of the norm after decades in which it governed the market suggests that at least in its final stage much of the power of the norm can be explained in terms of coordination. This hypothesis is strengthened by the fact that the shekel norm remained stable even though the dollar returned to its pre-crisis value during 2009.

### **The Interaction Between Law and Contracting Norms**

In this section I explore the way in which the law may affect prevalent contracting norms. Given the potential inefficiencies associated with contracting norms, policy makers—both judges and legislatures—may consider interventions aimed at unraveling existing norms. The Israeli government attempted to achieve this goal through legislative means. Analyzing this legislation, and the way in which it played out in the market, offers several insights as to the ability (or inability) to regulate social norms with legal tools.

The Israeli legislature tried to fight the widespread dollarization norm by amending the local Consumer Protection Law (CPL) in 2002. The amendment required real estate prices to be advertised in shekels (CPL §17B(b)(1)). Yet note that only a small segment of the market was actually subject to this amendment. Since the CPL only applies to those who are engaged in the selling of goods and services as a “profession” (CPL §1), the amendment was applicable only to commercial parties in the real estate market. In other words, in the sales market the amendment regulated the segment for the sale of new real estate, and left the secondary market (that is controlled by private parties) unregulated. Furthermore, because the Israeli rental market is mostly controlled by private individuals who are not professional landlords (Knesset



2007:5), the amendment did not apply to the majority of that market as well.

Despite its limited scope, there were two reasons to assume that the amendment could have brought about a change in market norms. First, a public legislative act, such as the amendment, could trigger the expressive power of the law and signal to the public the need to collectively switch equilibrium. Note that if players are in fact trapped in an inefficient equilibrium of a coordination game, it is in the best interest of *every player* in the game to shift strategies as long as the other players also do so. This is not the case in non-cooperative games such as the prisoners' dilemma, in which there may be a divergence between the collective interest and the individual interest. Thus, in a coordination setting it may be sufficient for a public figure to call on all players to switch strategies for them to do so (McAdams 2000; McAdams & Nadler 2005). This was the case, for example, when the Swedish government announced that on Sunday, September 3, 1967, at 5:00 a.m. all traffic would shift from the lefthand side of the roads to the righthand side. Clearly, all Swedes driving to church that Sunday morning had all the incentives in the world to drive on the righthand side of the road, even if there was no sanction for driving on the other side. Second, once a significant part of the market was forced to move to shekels, some of the network effects associated with dollarization were expected to diminish. For instance, a family selling their house in order to finance a new residence no longer had a need to tie their selling price to the dollar in order to cover for changes in the buying market. Hence, breaking one link in the dollarization chain might cause the entire chain to collapse.

It is rather clear, however, that the quick demise of the dollarization norm six years after the enactment of the amendment had little to do with it. Rather, it was caused by a change in the economic circumstances that taught the public that shifting to the alternative equilibrium served their best interests. Thus, it would seem that the claim that symbolic legislative acts might be sufficient to cause immediate shifts in cases of inefficient coordination did not prove to be correct in this case. This is not to say that such acts will always fail, but that one must evaluate such proposals with caution.

Furthermore, the rather strange application of the amendment to only one segment of the market caused several unexpected problems. First, because most of the market continued using dollars, players in the commercial segment found themselves constantly converting shekel prices into dollars. As Mirovski (2006:8) reported:

The ceremony—that might look odd to an outsider—did not surprise the salesperson at the construction sight in Petach Tikva: The couple entered the office and asked about the price of the

apartment they liked. The salesperson answered with a shekel price. The couple, in their forties, explained that the shekel price is meaningless, and asked him to translate it into dollars. The salesperson gave them a calculator that was on his desk and told them what the exchange rate was. The couple converted the price into dollars, said that it was too high, and left the office.

Brokers who marketed new projects used to save buyers the time and simply presented prices in dollars. As one of them stated, "When I present a new apartment to my customers I always convert the price to dollars beforehand. If I don't do that, they'll ask me to do that anyway. I can be a little off the exact price, so it isn't a problem." This type of behavior reflects the main concern regarding legislative intervention in private contracts. The legislation ends up achieving nothing but piling up more costs on the parties who attempt to circumvent it.

An additional unexpected effect of the legislation was the creation of temporary instabilities in the market because of the two pricing systems. New apartments and secondhand apartments are substitutes. Thus, there is a direct connection between the price of one and the demand for the other. If, for instance, the prices of secondhand apartments drop, then the demand for new apartments is expected to decrease as consumers shift their demand to the secondhand market. Such arbitrages between the firsthand and secondhand markets became quite common as exchange rates became more volatile. In mid-2003, for instance, the dollar dropped from approximately 5 shekels to the vicinity of 4.5 shekels in a relatively short period of time. This quick drop caused a significant decline in demand for new apartments as the prices of secondhand apartments denominated in dollars fell (Maor 2003). According to one leading mortgage firm, during that period the share of secondhand apartments in the market rose from 70–75 percent to around 90 percent (Maor 2003: n.p.). To be sure, over time the two markets are expected to converge into a new equilibrium reflecting actual demand and supply. Nonetheless, the intermediate periods could lead to inefficiencies, such as unnecessary stagnation in the market.

## **Conclusion**

In this article I presented a case study of dollarization in the Israeli real estate market. Using qualitative data I attempted to flesh out some of the intricate causal issues arising from a complex social phenomenon. The main observation of the case study was that despite tremendous changes in the economic reality, the dollarization norm in the Israeli real estate market remained

surprisingly stable over a relatively long period of time. Given the complexity of the phenomenon, the analysis could not pinpoint a single explanation for this observation. Nonetheless, I was able to suggest several potential ones and explore the relation between them.

Obviously, one should not rush to draw general conclusions from a case study analyzing a specific contract term in a unique market. In order to broaden an understanding of the described phenomena and allow for greater generalization of the results, researchers could embark on additional studies of dollarization both within Israel and abroad. Abroad, these studies could explore similar contracting behavior in countries that suffered from hyperinflation, such as many South American countries. In Israel, subsequent projects could study other types of contracts. For instance, while the prices of some services in Israel (such as legal representation) were quoted in dollars until recently, the prices of other services (such as psychological counseling) shifted to shekels many years ago. Comparing and distinguishing between these and other cases could help deepen scholars' understanding regarding the role social norms play in the area of contract design.

Despite its specific nature, the case study presented does offer several wide-ranging lessons regarding contracting and contract law. With respect to contracting, the study showed that social norms play a significant role in the structuring of high-stakes contracts, and that contracting around these norms, much like contracting around legislative default rules, may be trickier than traditional contract theory would have one believe. In this regard the study corroborated existing theories regarding the central role social norms play with respect to contract design. Furthermore, the study demonstrated that contracting norms are not prevalent only within tightly knit communities. Rather, the contracting behavior of a large anonymous population may also be driven by social norms. This finding challenges many of the existing theories of contractual behavior that are tied to the rational choice model and ignore incentives other than utility maximization in the design of contracts.

With respect to contract law, proponents of welfare enhancing policies may view the findings of this study as a justification for intrusive contract regulation. To the extent that contracting parties are "stuck" in an inefficient contracting equilibrium, such regulation may hasten the contract cycle and ease the shift to a new more efficient equilibrium. Nonetheless, as the study demonstrates, regulating contracting norms in such a fashion may prove to be a thorny task. In the case of dollarization, the contracting norm remained stable despite a direct legislative attempt to bring about its demise. This finding sets the ground for future research that will explore in more detail the variables that influence the interaction

between social norms and legal regulation. The effect of positive incentives (e.g., a tax break for a certain type of contract) could differ from that of negative incentives (e.g., criminalizing a certain type of contract). Similarly, the effect of legislation (e.g., altering the default rule) may differ from the effect of judicial policies (e.g., altering interpretive policies). In addition, the interaction between the law and social norms may depend on the extent moral and political divide surrounding the norm. While the social norm studied in this article related to a morally neutral issue, other social norms that are more divisive (e.g., discriminatory norms) may interact differently with legal regulation. Exploring these questions through additional case studies, or using other methodologies, could shed light on an array of practical questions.

Finally, this case study raises a series of question regarding the ability of the state to transform contracting norms through the use of its educating authority rather than through its legislative powers. If market players view the government as a type of professional authority, then the government may succeed in transforming contracting norms by educational means such as media campaigns that will introduce new and superior contract terms. In the sovereign debt market, for instance, players such as the International Monetary Fund and the U.S. Treasury helped parties overcome contractual stickiness by proposing alternative provisions (see Choi & Gulati 2004). With respect to dollarization, the government could have drawn the public's attention to the matter and attempted to foster a discussion on the (dis)utility of dollarization. A national campaign calling people to turn away from dollarization (perhaps kicked off by the public act of halting the publication of the RER) and backed by nonpolitical entities such as the central bank might have proven more fruitful than the legislative approach chosen by the government. While comparing the effectiveness of these two strategies could create insurmountable methodological barriers, researchers should attempt to identify those settings that allow exploring the relative advantages of each.

Contracts are sticky, and this stickiness brings about a theoretical and methodological messiness in their exploration. This messiness, however, should not stand in the way of developing a more robust understating of contractual behavior. Using the insights of the full spectrum of social sciences, rather than focusing on one dimension, could bring researchers closer to this goal.

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## Statute Cited

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